National Coal Quality Inventory (NACQI)

FINAL TECHNICAL REPORT

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PRINCIPAL INVESTIGATOR: Robert Finkelman

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U.S. Geological Survey
12201 Sunrise Valley Drive, MS 956
Reston, VA 20192

U.S. Geological Survey
P.O. Box 25046
Denver Federal Center, MS 939
Denver, CO 80225

DISCLAIMER

ABSTRACT

The U.S. Geological Survey (USGS) conducted the National Coal Quality Inventory (NaCQI) between 1999 and 2005 to address a need for quality information on coals that will be mined during the next 20-30 years. Collaboration between the USGS, State geological surveys, universities, coal burning utilities, and the coal mining industry plus funding support from the Electric Power Research Institute (EPRI) and the U.S. Department of Energy (DOE) permitted collection and submittal of coal samples for analysis.

The chemical data (proximate and ultimate analyses; major, minor and trace element concentrations) for 729 samples of raw or prepared coal, coal associated shale, and coal combustion products (fly ash, hopper ash, bottom ash and gypsum) from nine coal producing States are included. In addition, the project identified a new coal reference analytical standard, to be designated CWE-1 (West Elk Mine, Gunnison County, Colorado) that is a high-volatile-B or high-volatile-A bituminous coal with low contents of ash yield and sulfur, and very low, but detectable contents of chlorine, mercury and other trace elements.

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EXECUTIVE SUMMARY

In 1999, the National Coal Quality Inventory (NaCQI) project was initiated to address a need for quality information on coals that will be mined during the next 20-30 years. The primary objective of this project was to create a database containing comprehensive, accurate and accessible chemical information on the quality of United States coals. This objective was to be accomplished through maintaining the existing U.S. Geological Survey (USGS) publicly available coal quality database and expanding that database through the acquisition of new samples from priority areas. Analysis of the new samples using updated coal analytical chemistry procedures were performed by the USGS and commercial laboratories. Priority areas include those where future sources of compliance coal are federally owned. This project was a cooperative effort between the USGS, various State geological surveys, universities, coal burning utilities, and the coal mining industry. Funding support came from the USGS, Electric Power Research Institute and the U.S. Department of Energy.

Accomplishments include: 1) descriptive information and chemical analyses for 729 samples (697 coal and 32 coal combustion product samples); 2) identification of a mined coal that will be the basis for a new coal analytical standard, to be designated CWE-1 (West Elk Mine, Gunnison County, CO); and 3) six publications.

INTRODUCTION

In 1999, the USGS initiated the National Coal Quality Inventory (NaCQI) project to address a need for quality information on coals that will be mined during the next 20-30 years. At the time this project was initiated, the publicly available USGS coal quality data was based on samples primarily collected and analyzed between 1973 and 1985. The primary objective of NaCQI was to create a database containing comprehensive, accurate and accessible chemical information on the quality of mined and prepared United States coals and their combustion byproducts. This objective was to be accomplished through maintaining the existing publicly available coal quality database, expanding the database through the acquisition of new samples from priority areas, and analysis of the samples using updated coal analytical chemistry procedures. Priorities for sampling include those areas where future sources of compliance coal are federally owned.

This project was a cooperative effort between the U.S. Geological Survey (USGS), State geological surveys, universities, coal burning utilities, and the coal mining industry. Funding support came from the Electric Power Research Institute (EPRI) and the U.S. Department of Energy (DOE).

RESULTS AND DISCUSSION

Project Organization

Prior to the start of the NaCQI project, State geological surveys were invited to submit pre-proposals for geology-based sample collection programs needed to fulfill the goals of NaCQI for their state. The States were asked to include the following parameters in their proposals:

- Most significant coal beds/coal zones: their names, past production, and estimated resources.
- Number of operating mines in each bed/zone. Future plans for production.
- Estimated number of major/minor/trace element analyses available. For analyses done outside USGS, include source and timing.
- Estimated number of new samples needed. Opportunities to collect these new samples, including the number of existing and new mines and new areas to sample.
- List opportunities to obtain core from coal companies.
- Determine whether the coals are usually cleaned before shipping.
- Describe areas where there is little or no current mining, but where significant development is anticipated.
- Comments pertaining to regional or national impact of the beds/zones.
- Other comments concerning the major coal quality issues in that State and/or region.

Fourteen State organizations submitted pre-proposals, of these four proposals were selected for initial funding. These were from the State geological surveys of Colorado, Kentucky, West Virginia, and Wyoming.

In 2000, a second request for pre-proposals was made. This request was for research projects that would generate value-added information on the coal samples collected and/or on the data generated by the NaCQI project. Specifically, requests were for projects that would address the technological behavior (for example, fouling/slagging, combustion, washability), environmental impacts (trace element mobilization, disposal), or economic significance (byproduct recovery or use), or other relevant issues.

Two pre-proposals were received: one from the Indiana Geological Survey, the second from the University of Kentucky Center for Applied Energy Research; both were funded.

Budgetary constraints precluded a comprehensive, nationwide program of sample collection and analysis. Nevertheless, funding from the USGS, EPRI, and DOE and cooperation from State agencies resulted in the collection and analysis of a total of 729 samples of raw or prepared coal, coal-associated shale, and coal combustion products (fly ash, hopper ash, bottom ash and gypsum) from nine coal producing States.

Sampling

For the collection of NaCQI samples, the USGS requested that collection procedures conform to specific American Society for Testing and Materials (ASTM) standards. USGS recommended sample collection procedures, briefly outlined below, are described in detailed in Stanton (1989). Application of precise techniques in sample collection helps to ensure that data from each analysis performed on the samples will be useful. For interpretations and comparisons of elemental compositions of coal beds to be valid, the samples must be collected so that they are comparably representative of the coal bed. The effects of differing sample types (see guidelines below) must be considered so that they represent comparable components of the coal bed.

Major steps in sample collection include the following:

1. Select appropriate sample type for collection conditions or opportunity
2. Obtain sample according to specified procedures
3. Document all aspects of the sample
4. Transmit sample in appropriate air-tight containers and in a timely manner
5. Provide full documentation

<u>Guidelines</u>

A. Sample Types and Procedures

Samples from selected areas shall consist of the following types:

1. Channel (in accordance with ASTM Standard D 4596)
2. Core (in accordance with ASTM Standard D 5192)
3. Run-of-Mine or Preparation Plant Sample

[NOTE: Because the objective of NaCQI is to represent a mined product, a properly obtained conveyor-belt sample (ASTM Standard D 2234, 1998c) is preferable to channel or core samples. However, if the mine uses a preparation plant to improve the quality of the product, then the sample should be taken from mechanical samplers at the Prep Plant in accordance with ASTM Standard D 2234. In some cases, obtaining channel or conveyor-belt samples may not be possible, thus leaving core samples as the only practical alternative.]

Care should be exercised to ensure that the sample(s) represents the resource thickness. If only a part of the bed is being produced, the sample should represent that part. Sample documentation should clearly indicate the nature and extent of the sample and how much of the total bed thickness that the individual sample represents. For core and channel samples, mineral-rich layers greater than 1 cm shall be sampled separate from coal intervals. Run-of-mine or mine product samples shall include all material from the original sample:

B. Sample Descriptions:

Include all possible descriptions of the sample. Provide, at a minimum, the locality of the sample; thickness or depth intervals of the sample(s); weather, if a factor; geophysical logs, if core; and any other quality information available from the owner or mine.

Analytical Chemical Methods

Coal characterization analyses listed in the proximate and ultimate analyses worksheet in the Excel workbook, NaCQI.xls, were performed by Geochemical Testing (Wyoming, Colorado, Pennsylvania, Tennessee samples), Standard Laboratories, Inc. (Oklahoma and Indiana samples), Detroit Edison (Colorado, ERP150), West Virginia Geological and Economic Survey, and the Kentucky Geological Survey, using methods detailed in American Society of Testing and Materials (ASTM) standards D3172, D5373, D4239, D3176, D3174, D1989, D2494, and D720 (ASTM, 2005).

Analyses for moisture, ash, and major-, minor- and trace-element contents were performed by the Inorganic Chemistry Laboratory of the USGS Energy Program in Denver, Colorado. Abbreviated USGS methodologies are outlined below. Details of the USGS analytical methods can be found in Bullock and others (2002). Over the project's lifetime (1999-2005), several of the analytical procedures were changed to more closely follow ASTM standards. Analytical standards mentioned below can be found in ASTM (2005).

Moisture

Results from coal samples are reported on an "as-determined" basis as described in ASTM method D 3180. Moisture content for each sample is established so that sample submitters can calculate their analytical results to a "dry" basis. Moisture is determined by heating a one-gram coal sample for one hour at 107ºC (ASTM standard D 3173). After cooling in a desiccator, the coal is reweighed and the percent moisture is calculated. The moisture procedure did not change throughout the study. Analyses are presented both on the as-determined (remnant moisture) basis as well as dry basis in the Excel workbook, NaCQI.xls

Ash Yield

Ashing improves sensitivity and accuracy by concentrating metals and removing chemical interferences from organic material. Approximately 25 grams of coal is weighed into a ceramic dish and heated in a furnace, following a specific thermal profile, to a final temperature of 525ºC. After cooling, the remaining residue is weighed and the ash yield is determined. This ash was used in the analysis of major, minor, and trace elements. For samples ashed after May 2005 (ERP analytical jobs 434, 443, 449, 454, 455, and 650) ASTM standard D 3174 was used to produce the ash for major and minor elemental analysis (the ashing procedure for trace elements remained unchanged). The increased furnace temperature (750ºC) ensured a more complete ashing and conversion of carbonates to oxides, especially for high-rank coals.

Mercury

Mercury (Hg) is determined by digesting a coal or coal combustion product using a wet oxidation extraction (D 6414 method B). The sample is reduced in a continuous flow manifold, separated using a phase separator, and measured using cold vapor-atomic absorption spectrometry (CVAA). Samples analyzed after July 2004 (ERP jobs 434, 443, 449, 454, 455, and 650) were digested using an acid extraction (a variation of ASTM standard D 6414 method A). The Hg was measured by CVAA using a flow injection analysis system. The preparation method change was necessary due to a change in instrumentation.

Selenium

Selenium (Se) procedures varied, depending upon the sample matrix. Coal samples are digested by refluxing a combination of three acids in an open Erlenmeyer flask. Rock and coal combustion byproduct samples are digested using a combination of five acids and heating overnight in open Teflon vessels. The resulting solutions are analyzed for selenium using hydride generation-atomic absorption spectrometry (HGAA). The selenium procedure did not change throughout the study.

Total Sulfur

Total sulfur (S) is determined by combustion using a LECO SC-432 Sulfur analyzer. Coal samples are weighed into a ceramic boat and burned in a tube furnace at 1350ºC. Rock and coal combustion byproduct samples are weighed into a ceramic boat along with a promoting agent (to assist with combustion) and burned at 1450ºC. Sulfur dioxide is released from the samples and measured by an infrared (IR) absorption detector. The sulfur procedure did not change throughout the study.

Chlorine

Chlorine (Cl) is determined utilizing a sample decomposition technique of Eshka's mixture (two parts magnesium oxide and one part sodium carbonate) combined with the test sample and heated in a furnace, following a specific thermal profile. The mixture is cooled and brought up to a final volume with de-ionized water. The solution is measured using an ion chromatograph (IC). After March 2005 (ERP jobs 434, 443, 449, 454, 455, and 650), samples were analyzed for Cl using oxidative hydrolysis microcoulometry (ASTM standard D 6721). This new technology allows for lower sample reporting limits (from 150 ppm (IC) to 10 ppm).

Multi-element analysis

Forty-three major, minor, and trace elements were determined using a combination of inductively coupled plasma-atomic emission spectrometry (ICP-AES) and inductively coupled plasma-mass spectrometry (ICP-MS) on coal ash, coal combustion byproduct, and rock samples prepared using both a multi-acid and a sodium peroxide sinter decomposition technique. After May 2005 (ERP jobs 434, 443, 449, 454, 455, and 650) major and minor elements were digested following ASTM method D 6349 and trace

elements were digested using ASTM method D 6357. The elements were still determined using a combination of ICP-AES and ICP-MS. Changing digestion techniques removed the potentially dangerous perchloric acid and sodium peroxide from the preparation procedures.

Chemical Analyses

Identification and descriptive information and chemical analyses for the 729 samples are listed in the accompanying Excel workbook (filename NaCQI.xls). Information and data for the samples are distributed on five worksheets within that file as follows:

A. Identification numbers, locations and descriptive information
B. Contents of major and minor oxides
C. Contents of moisture, ash and major, minor and trace elements – remnant moisture basis
D. Contents of moisture, ash and major, minor and trace elements – dry basis
E. Proximate, ultimate, calorific value, forms-of-sulfur, etc. analyses

Previous USGS major-, minor- and trace-element coal quality datasets, like COALQUAL, contain concentrations on a remnant moisture basis (Bragg and others, 1997). Comparison of NaCQI and COALQUAL data should use the same basis.

Sample distribution is as follows:

A. Northern Great Plains Coal Province
    Wyoming – 107 samples
B. Rocky Mountain Coal Province
    Colorado – 56 samples
    Wyoming – 11 samples
C. Interior Coal Province
    Oklahoma – 8 samples
    Illinois – 11 samples
    Indiana – 242 samples
    Western Kentucky – 29 samples
D. Eastern Province
    Eastern Kentucky – 35 samples
    Pennsylvania – 33 samples
    Tennessee – 10 samples
    West Virginia – 187 samples

West Elk Coal Reference Standard

One derivative product resulting from the NaCQI sample collection and analytical program was the creation of a new coal reference standard. The USGS, in cooperation with Quality Associates International (Ontario, Canada), which operates a program called CANSPEX, identified a need for a reference material that is a high-volatile-B or high-

volatile-A bituminous coal (minimum of 13,000 Btu/lb, moist, mineral-matter-free basis) with low contents of ash yield and sulfur, and very low, but detectable contents of chlorine, mercury and other trace elements.

Based on chemical analyses of four coal samples collected by the Colorado Geological Survey (CGS), from the West Elk Mine near Somerset, CO, the coal produced at the West Elk Mine was identified as having a chemical composition that closely matched the requirements for the new coal reference material.

In April, 2003, the USGS and the CGS collected about 1000 pounds of coal from the West Elk Mine. This coal has been crushed, ground and split. The chemical analysis of the new coal standard is now in the final steps of certification.

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ACKNOWLEDGMENTS

We acknowledge the time and effort spent by the sample collectors and the cooperation of coal mine and coal-fired power plant management and personnel. Important funding support for this project came from the Electric Power Research Institute (EPRI, Barbara Toole-O'Neil) and from the U.S. Department of Energy (DOE, Carl Morande). Detroit Edison (Anthony J. Widenman, III) supplied coal characterization analyses for 24 Colorado coal samples.

LIST OF ACRONYMS

USGS – U.S. Geological Survey
DOE – U.S. Department of Energy
EPRI – Electric Power Research Institute
NaCQI – National Coal Quality Inventory
ICP-AES - inductively coupled plasma-atomic emission spectrometry
ICP-MS - inductively coupled plasma-mass spectrometry
ASTM – American Society for Testing and Materials

DATA APPENDIX

See the attached EXCEL file for analytical results of all samples. A visual dump of the data is included herein.

Table 1. -- Identification numbers, locations, and descriptive information for 729 National Coal Quality Inv
[blank space indicates no data]

Job number	Laboratory number	Field number	State	County	Latitude degrees	Latitude minutes	Latitude seconds
Northern Great Plains Province							
ERP00101	E-173222	44-23513	Wyoming	Campbell	44	17	0
ERP00101	E-173223	44-23514	Wyoming	Campbell	44	17	0
ERP00101	E-173224	44-23515	Wyoming	Campbell	44	17	0
ERP00101	E-173225	44-23516	Wyoming	Campbell	44	17	0
ERP00101	E-173226	44-23517	Wyoming	Campbell	44	17	0
ERP00101	E-173227	44-23518	Wyoming	Campbell	44	17	0
ERP00101	E-173228	44-23519	Wyoming	Campbell	44	17	0
ERP00101	E-173229	44-23520	Wyoming	Campbell	44	17	0
ERP00101	E-173230	44-23521	Wyoming	Campbell	44	17	0
ERP00101	E-173231	Silo 2A	Wyoming	Campbell	44	17	0
ERP00101	E-173232	Silo 2B	Wyoming	Campbell	44	17	0
ERP00101	E-173233	Silo 4A	Wyoming	Campbell	44	17	0
ERP00101	E-173234	Silo 4B	Wyoming	Campbell	44	17	0
ERP00302	E-207028	106A516	Wyoming	Campbell	44	8	50
ERP00302	E-207029	106B516	Wyoming	Campbell	44	8	50
ERP00302	E-207030	106C516	Wyoming	Campbell	44	8	50
ERP00302	E-207031	106D516	Wyoming	Campbell	44	8	50
ERP00302	E-207032	102A516	Wyoming	Campbell	44	8	50
ERP00302	E-207033	102B516	Wyoming	Campbell	44	8	50
ERP00302	E-207034	102C516	Wyoming	Campbell	44	8	50
ERP00302	E-207035	102D516	Wyoming	Campbell	44	8	50
ERP00302	E-207036	107REJECT48516	Wyoming	Converse	44	8	50
ERP00302	E-207037	107REJECT35516	Wyoming	Converse	44	8	50
ERP00302	E-207038	107REJECT516	Wyoming	Converse	44	8	50
ERP00302	E-207039	107B516PRB	Wyoming	Converse	44	8	50

Table 1. -- Identification numbers, locations, and descriptive information for 729 National Coal Quality Inv
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Job number	Laboratory number	Field number	State	County	Latitude degrees	Latitude minutes	Latitude seconds
ERP00302	E-207040	ANDERSONA516	Wyoming	Converse	43	28	14
ERP00302	E-207041	ANDERSONB516	Wyoming	Converse	43	28	14
ERP00302	E-207042	ANDERSONC516	Wyoming	Converse	43	28	14
ERP00302	E-207043	ANDERSOND516	Wyoming	Converse	43	28	14
ERP00302	E-207044	CANYONA516	Wyoming	Converse	43	28	14
ERP00302	E-207045	CANYONB516	Wyoming	Converse	43	28	14
ERP00302	E-207046	CANYONC516	Wyoming	Converse	43	28	14
ERP00302	E-207047	CANYOND516	Wyoming	Converse	43	28	14
ERP00302	E-207048	C3UA515	Wyoming	Campbell	43	42	29
ERP00302	E-207049	C3UB515	Wyoming	Campbell	43	42	29
ERP00302	E-207050	C3UC515	Wyoming	Campbell	43	42	29
ERP00302	E-207051	C3UD515	Wyoming	Campbell	43	42	29
ERP00302	E-207052	C1-2MA515	Wyoming	Campbell	43	42	29
ERP00302	E-207053	C1-2MB515	Wyoming	Campbell	43	42	29
ERP00302	E-207054	C1-2MC515	Wyoming	Campbell	43	42	29
ERP00302	E-207055	C1-2MD515	Wyoming	Campbell	43	42	29
ERP00302	E-207056	107REJECT48516	Wyoming	Converse	44	8	50
ERP00302	E-207057	ANDERSONC516	Wyoming	Converse	43	28	14
ERP00357	E-217253	7-11A	Wyoming	Campbell	44	8	50
ERP00357	E-217254	7-11B	Wyoming	Campbell	44	8	50
ERP00357	E-217255	7-12A	Wyoming	Campbell	44	8	50
ERP00357	E-217256	7-12B	Wyoming	Campbell	44	8	50
ERP00357	E-217257	7-12C	Wyoming	Campbell	44	8	50
ERP00357	E-217258	7-13A	Wyoming	Campbell	44	8	50
ERP00357	E-217259	7-13B	Wyoming	Campbell	44	8	50
ERP00357	E-217260	7-13C	Wyoming	Campbell	44	8	50
ERP00357	E-217261	7-14A	Wyoming	Campbell	44	8	50

Table 1. -- Identification numbers, locations, and descriptive information for 729 National Coal Quality Inv
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Job number	Laboratory number	Field number	State	County	Latitude degrees	Latitude minutes	Latitude seconds
ERP00357	E-217262	7-14B	Wyoming	Campbell	44	8	50
ERP00357	E-217263	7-14C	Wyoming	Campbell	44	8	50
ERP00357	E-217264	7-15A	Wyoming	Campbell	44	8	50
ERP00357	E-217265	7-15B	Wyoming	Campbell	44	8	50
ERP00357	E-217266	7-15C	Wyoming	Campbell	44	8	50
ERP00357	E-217267	7-15D	Wyoming	Campbell	44	8	50
ERP00357	E-217268	7-16B	Wyoming	Campbell	44	8	50
ERP00357	E-217269	7-17A	Wyoming	Campbell	44	8	50
ERP00357	E-217270	7-17B	Wyoming	Campbell	44	8	50
ERP00357	E-217271	7-17C	Wyoming	Campbell	44	8	50
ERP00357	E-217272	605A	Wyoming	Campbell	44	8	50
ERP00357	E-217273	609B	Wyoming	Campbell	44	8	50
ERP00357	E-217274	613B	Wyoming	Campbell	44	8	50
ERP00357	E-217275	614A	Wyoming	Campbell	44	8	50
ERP00357	E-217276	615	Wyoming	Campbell	44	8	50
ERP00357	E-217277	616	Wyoming	Campbell	44	8	50
ERP00357	E-217278	618	Wyoming	Campbell	44	8	50
ERP00357	E-217279	619	Wyoming	Campbell	44	8	50
ERP00357	E-217280	633	Wyoming	Campbell	44	8	50
ERP00357	E-217281	633B	Wyoming	Campbell	44	8	50
ERP00357	E-217282	633C	Wyoming	Campbell	44	8	50
ERP00357	E-217283	7-15C dup	Wyoming	Campbell	44	8	50
ERP00357	E-217284	609B dup	Wyoming	Campbell	44	8	50
ERP00358	E-217285	634	Wyoming	Campbell	44	8	50
ERP00358	E-217286	634B	Wyoming	Campbell	44	8	50
ERP00358	E-217287	634C	Wyoming	Campbell	44	8	50
ERP00358	E-217288	634D	Wyoming	Campbell	44	8	50

Table 1. -- Identification numbers, locations, and descriptive information for 729 National Coal Quality Inv
[blank space indicates no data]

Job number	Laboratory number	Field number	State	County	Latitude degrees	Latitude minutes	Latitude seconds
ERP00358	E-217289	636	Wyoming	Campbell	44	8	50
ERP00358	E-217290	637	Wyoming	Campbell	44	8	50
ERP00358	E-217291	638	Wyoming	Campbell	44	8	50
ERP00358	E-217292	638B	Wyoming	Campbell	44	8	50
ERP00358	E-217293	638C	Wyoming	Campbell	44	8	50
ERP00358	E-217294	545	Wyoming	Campbell	44	8	50
ERP00358	E-217295	546	Wyoming	Campbell	44	8	50
ERP00358	E-217296	550	Wyoming	Campbell	44	8	50
ERP00358	E-217297	551	Wyoming	Campbell	44	8	50
ERP00358	E-217298	552	Wyoming	Campbell	44	8	50
ERP00358	E-217299	81402A	Wyoming	Converse	43	28	14
ERP00358	E-217300	81402B	Wyoming	Converse	43	28	14
ERP00358	E-217301	81402C	Wyoming	Converse	43	28	14
ERP00358	E-217302	81402D	Wyoming	Converse	43	28	14
ERP00358	E-217303	81402E	Wyoming	Converse	43	28	14
ERP00358	E-217304	81402F	Wyoming	Converse	43	28	14
ERP00358	E-217305	81402GHC	Wyoming	Converse	43	28	14
ERP00358	E-217306	81402HHC	Wyoming	Converse	43	28	14
ERP00358	E-217307	81402IHC	Wyoming	Converse	43	28	14
ERP00358	E-217308	81402JHC	Wyoming	Converse	43	28	14
ERP00358	E-217309	81402KHC	Wyoming	Converse	43	28	14
ERP00358	E-217310	81402LHC	Wyoming	Converse	43	28	14
ERP00358	E-217311	81402C3upper	Wyoming	Campbell	43	42	29
ERP00358	E-217312	81402upper44	Wyoming	Campbell	43	42	29
ERP00358	E-217313	81402C1-2	Wyoming	Campbell	43	42	29
ERP00358	E-217314	81402middle	Wyoming	Campbell	43	42	29
ERP00358	E-217315	546 dup	Wyoming	Campbell	44	8	50

Table 1. -- Identification numbers, locations, and descriptive information for 729 National Coal Quality Inv
[blank space indicates no data]

Job number	Laboratory number	Field number	State	County	Latitude degrees	Latitude minutes	Latitude seconds
ERP00358	E-217316	637 dup	Wyoming	Campbell	44	8	50
Rocky Mountain Province							
ERP00404	E-224222	717JB1	Wyoming	Sweetwater	41	47	46
ERP00404	E-224223	717JB2	Wyoming	Sweetwater	41	43	44
ERP00404	E-224224	717JB3	Wyoming	Sweetwater	41	43	41
ERP00404	E-224225	717JB4	Wyoming	Sweetwater	41	49	37
ERP00404	E-224226	717JB5	Wyoming	Sweetwater	41	49	26
ERP00404	E-224227	717155A	Wyoming	Lincoln	41	44	31
ERP00404	E-224228	717155B	Wyoming	Lincoln	41	44	31
ERP00404	E-224229	717155C	Wyoming	Lincoln	41	44	31
ERP00404	E-224230	717155D	Wyoming	Lincoln	41	44	31
ERP00404	E-224231	717365A	Wyoming	Lincoln	41	43	41
ERP00404	E-224232	717365B	Wyoming	Lincoln	41	43	41
ERP00150	E-186364	19117-SF-1	Colorado	Fremont	38	17	2
ERP00150	E-186365	19118-SF-2	Colorado	Fremont	38	17	2
ERP00150	E-186366	19119-SF-3	Colorado	Fremont	38	17	2
ERP00150	E-186367	19120-SF-4	Colorado	Fremont	38	17	2
ERP00150	E-186368	19324-NH-1	Colorado	Montrose	39	6	53
ERP00150	E-186369	19326-NH-2	Colorado	Montrose	39	6	53
ERP00150	E-186370	19328-NH-3	Colorado	Montrose	39	6	53
ERP00150	E-186371	19330-NH-4	Colorado	Montrose	39	6	53
ERP00150	E-186372	19332-KC-1	Colorado	La Plata	37	15	37
ERP00150	E-186373	19334-KC-2	Colorado	La Plata	37	15	37
ERP00150	E-186374	19336-KC-3	Colorado	La Plata	37	15	37
ERP00150	E-186375	19338-T-1	Colorado	Routt	40	20	59

Table 1. -- Identification numbers, locations, and descriptive information for 729 National Coal Quality Inv
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Job number	Laboratory number	Field number	State	County	Latitude degrees	Latitude minutes	Latitude seconds
ERP00150	E-186376	19340-T-2	Colorado	Routt	40	20	59
ERP00150	E-186377	19342-W-ROM	Colorado	Routt	40	22	43
ERP00150	E-186378	19344-S2W-A	Colorado	Routt	40	22	43
ERP00150	E-186379	19347-Y-1	Colorado	Routt	40	23	24
ERP00150	E-186380	20473-SC-1	Colorado	Delta	38	55	58
ERP00150	E-186381	20474-TREA-H	Colorado	Moffat	40	25	47
ERP00150	E-186382	20475-TR-H-M	Colorado	Moffat	40	25	47
ERP00150	E-186383	20476-DS1-RM	Colorado	Rio Blanco	40	10	5
ERP00150	E-186384	20477-DS-1-S	Colorado	Rio Blanco	40	10	5
ERP00150	E-186385	20478-MC1-RM	Colorado	Garfield	39	26	26
ERP00150	E-186386	20479-BW1-CH	Colorado	Delta	38	55	59
ERP00150	E-186387	20480-BW1-S	Colorado	Delta	38	55	59
ERP00188	E-190603	TR-DR1-QU	Colorado	Moffat	40	25	47
ERP00188	E-190604	TR-DR2-QM	Colorado	Moffat	40	25	47
ERP00188	E-190605	Trapper-ROM	Colorado	Moffat	40	25	47
ERP00188	E-190606	CWO-W-CH	Colorado	Moffat	40	15	21
ERP00188	E-190607	CWO-ROM	Colorado	Moffat	40	15	36
ERP00188	E-190608	1-WE-Sales	Colorado	Gunnison	38	55	39
ERP00188	E-190609	San1-KC	Colorado	La Plata	37	15	37
ERP00188	E-190610	San2-NH	Colorado	Montrose	39	6	53
ERP00188	E-190611	San3-BW2	Colorado	Delta	38	55	59
ERP00188	E-190612	San4-WE	Colorado	Gunnison	38	55	39
ERP00188	E-190613	San5-SB	Colorado	Delta	38	55	58
ERP00188	E-190614	San6-MC	Colorado	Garfield	39	26	26
ERP00188	E-190615	Sen2W-01-ROM	Colorado	Routt	40	22	43
ERP00188	E-190616	Y-01-ROM	Colorado	Routt	40	23	24
ERP00188	E-190617	FC-01-ROM	Colorado	Routt	40	20	59

Table 1. -- Identification numbers, locations, and descriptive information for 729 National Coal Quality Inv
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Job number	Laboratory number	Field number	State	County	Latitude degrees	Latitude minutes	Latitude seconds
ERP00276	E-203760	20451	Colorado	Gunnison	38	55	39
ERP00276	E-203761	WEM MCC	Colorado	Gunnison	38	55	39
ERP00276	E-203762	DES-01-01	Colorado	Rio Blanco	40	9	58
ERP00276	E-203763	DES-02-01	Colorado	Rio Blanco	40	9	58
ERP00276	E-203764	DES-03-01	Colorado	Rio Blanco	40	9	58
ERP00276	E-203765	CWO-01-01	Colorado	Moffat	40	14	20
ERP00276	E-203766	CWO-02-01	Colorado	Moffat	40	14	17
ERP00276	E-203767	CWO-03-01	Colorado	Moffat	40	15	16
ERP00276	E-203768	CWO-04-01	Colorado	Moffat	40	15	10
ERP00276	E-203769	CWO-05-01	Colorado	Moffat	40	14	16
ERP00276	E-203770	CWO-06-01	Colorado	Moffat	40	15	2
ERP00276	E-203771	CWO-07-01	Colorado	Moffat	40	15	15
ERP00276	E-203772	TRDR-RCHAN	Colorado	Moffat	40	25	27
ERP00276	E-203773	TRDR-QROM	Colorado	Moffat	40	25	22
ERP00276	E-203774	LOR-M-01-02	Colorado	Las Animas	37	6	53
ERP00276	E-203775	LOR-NA-01-02	Colorado	Las Animas	37	6	55
ERP00276	E-203776	WEM MCC2	Colorado	Gunnison	38	55	39
Interior Province							
EA52	E-000990	96-C-1H	Oklahoma	Rogers	36	34	12
EA52	E-000991	96-C-3H	Oklahoma	Nowata	36	39	36
EA52	E-000992	96-C-4H	Oklahoma	Craig	36	44	24
ERP00113	E-177446	OKLA-1	Oklahoma	Okmulgee	35	38	16
ERP00141	E-186010	OPL1143	Oklahoma	Haskell	35	22	12
ERP00141	E-186011	OPL1144	Oklahoma	LeFlore	38	51	0
ERP00449	E-242780	OPL-1183	Oklahoma	Nowata	36	36	40

Table 1. -- Identification numbers, locations, and descriptive information for 729 National Coal Quality Inv
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Job number	Laboratory number	Field number	State	County	Latitude degrees	Latitude minutes	Latitude seconds
ERP00449	E-242781	OPL-1184	Oklahoma	Craig	36	37	45
EA05	E-000037	C34943	Illinois	Vermilion	39	58	55
EB71	E-003207	C33863	Illinois	Douglas	38	8	55
EB71	E-003208	C33864	Illinois	Douglas	38	8	55
EB71	E-003209	C33865	Illinois	Douglas	38	8	55
ERP00048	E-138332	C36488	Illinois	Jackson	37	55	54
ERP00048	E-138333	C36489	Illinois	Jackson	37	56	9
ERP00048	E-138334	C36490	Illinois	Jackson	37	55	54
ERP00048	E-138335	C36491	Illinois	Gallatin	37	41	36
ERP00048	E-138336	C36492	Illinois	Gallatin	37	40	50
ERP00048	E-138337	C36493	Illinois	Gallatin	37	40	40
ERP00048	E-138338	C36494	Illinois	Jackson	37	51	51
EB71	E-003186	98126-1	Indiana	Posey	37	58	50
EB71	E-003187	98126-2	Indiana	Posey	37	58	50
EB71	E-003188	98126-3	Indiana	Posey	37	58	50
EB71	E-003189	98126-4	Indiana	Posey	37	58	50
EB71	E-003190	98126-5	Indiana	Posey	37	58	50
EB71	E-003191	98126-6	Indiana	Posey	37	58	50
EB71	E-003192	98126-7	Indiana	Posey	37	58	50
EB71	E-003193	98126-8	Indiana	Posey	37	58	50
EB71	E-003194	98126-9	Indiana	Posey	37	58	50
EB71	E-003195	98126-10	Indiana	Posey	37	58	50
EB71	E-003196	98126-11	Indiana	Posey	37	58	50
EB71	E-003197	98126-12	Indiana	Posey	37	58	50
EB71	E-003198	98126-13	Indiana	Posey	38	5	6
EB71	E-003199	98126-14	Indiana	Posey	38	5	6
EB71	E-003200	98126-15	Indiana	Posey	38	5	6

Table 1. -- Identification numbers, locations, and descriptive information for 729 National Coal Quality Inv
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Job number	Laboratory number	Field number	State	County	Latitude degrees	Latitude minutes	Latitude seconds
EB71	E-003201	98126-16	Indiana	Posey	38	5	6
EB71	E-003202	98126-17	Indiana	Posey	38	5	6
EB71	E-003203	98126-18	Indiana	Posey	38	5	6
EB71	E-003204	98126-19	Indiana	Posey	38	5	6
EB71	E-003205	98126-20	Indiana	Posey	38	5	6
EB71	E-003206	98126-21	Indiana	Posey	38	5	6
ERP00238	E-200392	980813B1	Indiana	Clay	39	17	44
ERP00238	E-200393	980813B2	Indiana	Clay	39	17	44
ERP00238	E-200394	980813B3	Indiana	Clay	39	17	44
ERP00238	E-200395	981130A1	Indiana	Greene	39	7	19
ERP00238	E-200396	981130A2	Indiana	Greene	39	7	19
ERP00238	E-200397	981130A3	Indiana	Greene	39	7	19
ERP00238	E-200398	981130A4	Indiana	Greene	39	7	19
ERP00238	E-200399	981207A1	Indiana	Greene	39	7	24
ERP00238	E-200400	981207A2	Indiana	Greene	39	7	24
ERP00238	E-200401	981207A3	Indiana	Greene	39	7	24
ERP00238	E-200402	981207A4	Indiana	Greene	39	7	24
ERP00238	E-200403	981207B1	Indiana	Greene	39	8	7
ERP00238	E-200404	981207B2	Indiana	Greene	39	7	24
ERP00238	E-200405	981207B4	Indiana	Greene	39	7	24
ERP00238	E-200406	10803A1,0-63	Indiana	Parke	39	42	4
ERP00238	E-200407	10803A1,1.6	Indiana	Parke	39	42	4
ERP00238	E-200408	10803A2,63-94	Indiana	Parke	39	42	4
ERP00238	E-200409	10803A2,1.6	Indiana	Parke	39	42	4
ERP00238	E-200410	10803A3,94-131	Indiana	Parke	39	42	4
ERP00238	E-200411	10803A3,1.6	Indiana	Parke	39	42	4
ERP00238	E-200412	10803B1,0-28	Indiana	Parke	39	41	50

Table 1. -- Identification numbers, locations, and descriptive information for 729 National Coal Quality Inv
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Job number	Laboratory number	Field number	State	County	Latitude degrees	Latitude minutes	Latitude seconds
ERP00238	E-200413	10803B1,1.6	Indiana	Parke	39	41	50
ERP00238	E-200414	10803B2,28-53	Indiana	Parke	39	41	50
ERP00238	E-200415	10803B2,1.6	Indiana	Parke	39	41	50
ERP00238	E-200416	10803B3,53-73	Indiana	Parke	39	41	50
ERP00238	E-200417	10803B3,1.6	Indiana	Parke	39	41	50
ERP00238	E-200418	10724C1,0-33	Indiana	Sullivan	39	1	51
ERP00238	E-200419	10724C1,1.5	Indiana	Sullivan	39	1	51
ERP00238	E-200420	10724C2,33-69	Indiana	Sullivan	39	1	51
ERP00238	E-200421	10724C2,1.5	Indiana	Sullivan	39	1	51
ERP00238	E-200422	10724C3,69-96	Indiana	Sullivan	39	1	51
ERP00238	E-200423	10724C3,1.5	Indiana	Sullivan	39	1	51
ERP00238	E-200424	10724C4,96-117	Indiana	Sullivan	39	1	51
ERP00238	E-200425	10724C4,1.5	Indiana	Sullivan	39	1	51
ERP00238	E-200426	981130A3D	Indiana	Greene	39	7	19
ERP00238	E-200427	10803A1,1.6D	Indiana	Parke	39	42	4
ERP00238	E-200428	10803B3,1.6D	Indiana	Parke	39	41	50
ERP00239	E-200429	10724B1,0-34	Indiana	Sullivan	39	13	46
ERP00239	E-200430	10724B1,1.5	Indiana	Sullivan	39	13	46
ERP00239	E-200431	10724B2,34-70	Indiana	Sullivan	39	13	46
ERP00239	E-200432	10724B2,1.5	Indiana	Sullivan	39	13	46
ERP00239	E-200433	10724B3,70-93	Indiana	Sullivan	39	13	46
ERP00239	E-200434	10724B3,1.5	Indiana	Sullivan	39	13	46
ERP00239	E-200435	107241,0-34	Indiana	Sullivan	39	13	59
ERP00239	E-200436	107241,1.5	Indiana	Sullivan	39	13	59
ERP00239	E-200437	107242,34-63	Indiana	Sullivan	39	13	59
ERP00239	E-200438	107242,1.5	Indiana	Sullivan	39	13	59
ERP00239	E-200439	107243,65-97	Indiana	Sullivan	39	13	59

Table 1. -- Identification numbers, locations, and descriptive information for 729 National Coal Quality Inv
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Job number	Laboratory number	Field number	State	County	Latitude degrees	Latitude minutes	Latitude seconds
ERP00239	E-200440	107243,1.5	Indiana	Sullivan	39	13	59
ERP00239	E-200441	11006A1,0-15	Indiana	Knox	38	38	49
ERP00239	E-200442	11006A1,1.6	Indiana	Knox	38	38	49
ERP00239	E-200443	11006A2,15-43	Indiana	Knox	38	38	49
ERP00239	E-200444	11006A2,1.6	Indiana	Knox	38	38	49
ERP00239	E-200445	11006A3,43-103	Indiana	Knox	38	38	49
ERP00239	E-200446	11006A3,1.6	Indiana	Knox	38	38	49
ERP00239	E-200447	11006A4,103-148	Indiana	Knox	38	38	49
ERP00239	E-200448	11006A4, 1.6	Indiana	Knox	38	38	49
ERP00239	E-200449	11006AQ, MTraw	Indiana	Knox	38	38	49
ERP00239	E-200450	11006AQ, MT1.6	Indiana	Knox	38	38	49
ERP00239	E-200451	11027A1,0-22	Indiana	Spencer	38	10	34
ERP00239	E-200452	11027A1,1.6	Indiana	Spencer	38	10	34
ERP00239	E-200453	11027A2,22-42	Indiana	Spencer	38	10	34
ERP00239	E-200454	11027A2,1.6	Indiana	Spencer	38	10	34
ERP00239	E-200455	11027A3,44-68	Indiana	Spencer	38	10	34
ERP00239	E-200456	11027A3,1.6	Indiana	Spencer	38	10	34
ERP00239	E-200457	11106A1,0-24	Indiana	Spencer	38	10	26
ERP00239	E-200458	11106A1,1.6	Indiana	Spencer	38	10	26
ERP00239	E-200459	11106A2,24-47	Indiana	Spencer	38	10	26
ERP00239	E-200460	11106A2,1.6	Indiana	Spencer	38	10	26
ERP00239	E-200461	11106A3,47-57	Indiana	Spencer	38	10	26
ERP00239	E-200462	11106A3,1.6	Indiana	Spencer	38	10	26
ERP00239	E-200463	11106A4,57-77	Indiana	Spencer	38	10	26
ERP00239	E-200464	11106A4,1.6	Indiana	Spencer	38	10	26
ERP00239	E-200465	11106A1,1.6D	Indiana	Spencer	38	10	26
ERP00239	E-200466	10724B2,34-70D	Indiana	Sullivan	39	13	46

Table 1. -- Identification numbers, locations, and descriptive information for 729 National Coal Quality Inv
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Job number	Laboratory number	Field number	State	County	Latitude degrees	Latitude minutes	Latitude seconds
ERP00239	E-200467	107242,1.5D	Indiana	Sullivan	39	13	59
ERP00255	E-201895	10807A1	Indiana	Greene	39	4	48
ERP00255	E-201896	10807A1,1.6	Indiana	Greene	39	4	48
ERP00255	E-201897	10807A2	Indiana	Greene	39	4	48
ERP00255	E-201898	10807A2,1.6	Indiana	Greene	39	4	48
ERP00255	E-201899	10807A3	Indiana	Greene	39	4	48
ERP00255	E-201900	10807A3,1.6	Indiana	Greene	39	4	48
ERP00255	E-201901	10807B1	Indiana	Greene	39	4	44
ERP00255	E-201902	10807B1,1.6	Indiana	Greene	39	4	44
ERP00255	E-201903	10807B2	Indiana	Greene	39	4	44
ERP00255	E-201904	10807B2,1.6	Indiana	Greene	39	4	44
ERP00255	E-201905	10807B3	Indiana	Greene	39	4	44
ERP00255	E-201906	10807B3,1.6	Indiana	Greene	39	4	44
ERP00255	E-201907	10807B4	Indiana	Greene	39	4	44
ERP00255	E-201908	10807B4,1.6	Indiana	Greene	39	4	44
ERP00255	E-201909	CulleyMillB3	Indiana	Spencer			
ERP00255	E-201910	CulleyMillC3	Indiana	Spencer			
ERP00255	E-201911	CulleyMillE3	Indiana	Spencer			
ERP00255	E-201912	CulleyMillB2	Indiana	Spencer			
ERP00255	E-201913	CulleyMillA2	Indiana	Spencer			
ERP00255	E-201914	GEboiler1	Indiana	Knox			
ERP00255	E-201915	GEboiler2	Indiana	Knox			
ERP00255	E-201916	AQProduct	Indiana	Knox			
ERP00255	E-201917	11113A1	Indiana	Warrick	38	5	49
ERP00255	E-201918	11113A1,1.5	Indiana	Warrick	38	5	49
ERP00255	E-201919	11113A2	Indiana	Warrick	38	5	49
ERP00255	E-201920	11113A2,1.5	Indiana	Warrick	38	5	49

Table 1. -- Identification numbers, locations, and descriptive information for 729 National Coal Quality Inv
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Job number	Laboratory number	Field number	State	County	Latitude degrees	Latitude minutes	Latitude seconds
ERP00255	E-201921	11113A4	Indiana	Warrick	38	5	49
ERP00255	E-201922	11113A4,1.5	Indiana	Warrick	38	5	49
ERP00255	E-201923	11113A5	Indiana	Warrick	38	5	49
ERP00255	E-201924	11113A5,1.5	Indiana	Warrick	38	5	49
ERP00255	E-201925	11113A6	Indiana	Warrick	38	5	49
ERP00255	E-201926	11113A6,1.5	Indiana	Warrick	38	5	49
ERP00255	E-201927	10807A2D	Indiana	Greene	39	4	48
ERP00255	E-201928	11113A4D	Indiana	Warrick	38	5	49
ERP00256	E-201929	GEboiler2-2	Indiana	Knox			
ERP00256	E-201930	GEboiler2-4	Indiana	Knox			
ERP00256	E-201931	GEboiler2-6	Indiana	Knox			
ERP00256	E-201932	GEboiler2-8	Indiana	Knox			
ERP00256	E-201933	GEboiler1-1	Indiana	Knox			
ERP00256	E-201934	GEboiler1-3	Indiana	Knox			
ERP00256	E-201935	GEboiler1-5	Indiana	Knox			
ERP00256	E-201936	GEboiler1-7	Indiana	Knox			
ERP00256	E-201937	Geunit1-rph	Indiana	Knox			
ERP00256	E-201938	CulleyUnit3E	Indiana	Spencer			
ERP00256	E-201939	CulleyUnit3W	Indiana	Spencer			
ERP00256	E-201940	CulleyUnit2E	Indiana	Spencer			
ERP00256	E-201941	Culley2+3FGD	Indiana	Spencer			
ERP00256	E-201942	GEboiler2-4D	Indiana	Knox			
ERP00277	E-203777	10803C1,0-30	Indiana	Clay	39	20	17
ERP00277	E-203778	10803C1,1.6	Indiana	Clay	39	20	17
ERP00277	E-203779	10803C2,30-52	Indiana	Clay	39	20	17
ERP00277	E-203780	10803C2,1.6	Indiana	Clay	39	20	17
ERP00277	E-203781	10803C3,52-86	Indiana	Clay	39	20	17

Table 1. -- Identification numbers, locations, and descriptive information for 729 National Coal Quality Inv
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Job number	Laboratory number	Field number	State	County	Latitude degrees	Latitude minutes	Latitude seconds
ERP00277	E-203782	10803C3,1.6	Indiana	Clay	39	20	17
ERP00277	E-203783	10803C4,86-110	Indiana	Clay	39	20	17
ERP00277	E-203784	10803C4,1.6	Indiana	Clay	39	20	17
ERP00277	E-203785	10724D1,0-26	Indiana	Clay	39	20	17
ERP00277	E-203786	10724D1,1.5	Indiana	Clay	39	20	17
ERP00277	E-203787	10724D2,26-48	Indiana	Clay	39	20	17
ERP00277	E-203788	10724D2,1.5	Indiana	Clay	39	20	17
ERP00277	E-203789	10724D3,50-62	Indiana	Clay	39	20	17
ERP00277	E-203790	10724D3,1.5	Indiana	Clay	39	20	17
ERP00277	E-203791	10803C1,0-30D	Indiana	Clay	39	20	17
ERP00313	E-209604	205241 0-27	Indiana	Gibson	38	16	45
ERP00313	E-209605	205241 float	Indiana	Gibson	38	16	45
ERP00313	E-209606	205242 27-61	Indiana	Gibson	38	16	45
ERP00313	E-209607	205242 float	Indiana	Gibson	38	16	45
ERP00313	E-209608	205243 61-89	Indiana	Gibson	38	16	45
ERP00313	E-209609	205243 float	Indiana	Gibson	38	16	45
ERP00313	E-209610	20524FC 0-89	Indiana	Gibson	38	16	45
ERP00313	E-209611	20524FC float	Indiana	Gibson	38	16	45
ERP00313	E-209612	205291 0-33	Indiana	Gibson	38	15	55
ERP00313	E-209613	205291 float	Indiana	Gibson	38	15	55
ERP00313	E-209614	205292 33-74	Indiana	Gibson	38	15	55
ERP00313	E-209615	205292 float	Indiana	Gibson	38	15	55
ERP00313	E-209616	205293 74-103	Indiana	Gibson	38	15	55
ERP00313	E-209617	205293 float	Indiana	Gibson	38	15	55
ERP00313	E-209618	205294 103-143	Indiana	Gibson	38	15	55
ERP00313	E-209619	205294 float	Indiana	Gibson	38	15	55
ERP00313	E-209620	20524FC floatD	Indiana	Gibson	38	16	45

Table 1. -- Identification numbers, locations, and descriptive information for 729 National Coal Quality Inv
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Job number	Laboratory number	Field number	State	County	Latitude degrees	Latitude minutes	Latitude seconds
ERP00313	E-209621	205294 103-143D	Indiana	Gibson	38	15	55
ERP00426	E-229090	20031009-1R	Indiana	Gibson	38	18	50
ERP00426	E-229091	20031009-1F	Indiana	Gibson	38	18	50
ERP00426	E-229092	20031009-2R	Indiana	Gibson	38	18	50
ERP00426	E-229093	20031009-2F	Indiana	Gibson	38	18	50
ERP00426	E-229094	20031009-3R	Indiana	Gibson	38	18	50
ERP00426	E-229095	20031009-3F	Indiana	Gibson	38	18	50
ERP00426	E-229096	20031009-4R	Indiana	Gibson	38	18	50
ERP00426	E-229097	20031009-4F	Indiana	Gibson	38	18	50
ERP00426	E-229098	20030214-1	Indiana	Knox	38	35	28
ERP00426	E-229099	20030214-2	Indiana	Knox	38	35	28
ERP00426	E-229100	20030214-3	Indiana	Knox	38	35	28
ERP00426	E-229101	20030214-4	Indiana	Knox	38	35	28
ERP00426	E-229102	20030321-A1	Indiana	Daviess	38	37	41
ERP00426	E-229103	20030321-A2	Indiana	Daviess	38	37	41
ERP00426	E-229104	20030321-A3	Indiana	Daviess	38	37	41
ERP00426	E-229105	20030321-A4	Indiana	Daviess	38	37	41
ERP00426	E-229106	20030321-B1	Indiana	Daviess	38	37	40
ERP00426	E-229107	20030321-B2	Indiana	Daviess	38	37	40
ERP00426	E-229108	20030321-B3	Indiana	Daviess	38	37	40
ERP00426	E-229109	20030321-B4	Indiana	Daviess	38	37	40
ERP00426	E-229110	20030321-C1	Indiana	Daviess	38	37	23
ERP00426	E-229111	20030321-C2	Indiana	Daviess	38	37	23
ERP00426	E-229113	20030321-C4	Indiana	Daviess	38	37	23
ERP00426	E-229114	20030321-C5	Indiana	Daviess	38	37	23
ERP00434	E-230453	20031028D-1R	Indiana	Gibson	38	20	10
ERP00434	E-230454	20031028D-1F	Indiana	Gibson	38	20	10

Table 1. -- Identification numbers, locations, and descriptive information for 729 National Coal Quality Inv
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Job number	Laboratory number	Field number	State	County	Latitude degrees	Latitude minutes	Latitude seconds
ERP00434	E-230455	20031028D-2R	Indiana	Gibson	38	20	10
ERP00434	E-230456	20031028D-2F	Indiana	Gibson	38	20	10
ERP00434	E-230457	20031028D-3R	Indiana	Gibson	38	20	10
ERP00434	E-230458	20031028D-3F	Indiana	Gibson	38	20	10
ERP00434	E-230459	20031028D-4R	Indiana	Gibson	38	20	10
ERP00434	E-230460	20031028D-4F	Indiana	Gibson	38	20	10
ERP00434	E-230461	2698001-R	Indiana	Gibson	38	17	53
ERP00434	E-230462	2698002-F	Indiana	Gibson	38	17	53
ERP00434	E-230463	2698004-R	Indiana	Gibson	38	17	53
ERP00434	E-230464	2698005-F	Indiana	Gibson	38	17	53
ERP00434	E-230465	2698007-R	Indiana	Gibson	38	17	53
ERP00434	E-230466	2698008-F	Indiana	Gibson	38	17	53
ERP00434	E-230467	2698010-R	Indiana	Gibson	38	17	53
ERP00434	E-230468	2698011-F	Indiana	Gibson	38	17	53
ERP00434	E-230469	2698013-R	Indiana	Gibson	38	17	53
ERP00434	E-230470	2698014-F	Indiana	Gibson	38	17	53
ERP00434	E-230471	2698016-R	Indiana	Gibson	38	17	53
ERP00434	E-230472	2698017-F	Indiana	Gibson	38	17	53
ERP00434	E-230473	2698019-R	Indiana	Gibson	38	17	53
ERP00434	E-230474	2698020-F	Indiana	Gibson	38	17	53
ERP00434	E-230475	2698022-R	Indiana	Gibson	38	17	53
ERP00434	E-230476	2698023-F	Indiana	Gibson	38	17	53
ERP00434	E-230477	20031028A-1R	Indiana	Gibson	38	21	3
ERP00434	E-230478	20031028A-1F	Indiana	Gibson	38	21	3
ERP00434	E-230479	20031028A-2R	Indiana	Gibson	38	21	3
ERP00434	E-230480	20031028A-2F	Indiana	Gibson	38	21	3
ERP00434	E-230481	20031028A-3R	Indiana	Gibson	38	21	3

Table 1. -- Identification numbers, locations, and descriptive information for 729 National Coal Quality Inv
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Job number	Laboratory number	Field number	State	County	Latitude degrees	Latitude minutes	Latitude seconds
ERP00434	E-230482	20031028A-3F	Indiana	Gibson	38	21	3
ERP00434	E-230483	20031028B-1R	Indiana	Gibson	38	24	34
ERP00434	E-230484	20031028B-1F	Indiana	Gibson	38	24	34
ERP00434	E-230485	20031028B-2R	Indiana	Gibson	38	24	34
ERP00434	E-230486	20031028B-2F	Indiana	Gibson	38	24	34
ERP00434	E-230487	20031028B-3R	Indiana	Gibson	38	24	34
ERP00434	E-230488	20031028B-3F	Indiana	Gibson	38	24	34
ERP00434	E-230489	20031028B-4R	Indiana	Gibson	38	24	34
ERP00434	E-230490	20031028B-4F	Indiana	Gibson	38	24	34
ERP00434	E-230491	20031028C	Indiana	Gibson	38	20	40
ERP00434	E-230492	20031028C	Indiana	Gibson	38	20	40
ERP00650	06500001	BigRun1	Kentucky	Ohio	37	24	28
ERP00650	06500002	DC0410WKY10	Kentucky	Webster	37	34	14
ERP00650	06500003	DC0410WKY13Ba	Kentucky	Webster	37	34	14
ERP00650	06500004	DC0410WKY9A	Kentucky	Webster	37	34	14
ERP00650	06500005	DC0410WKY9B	Kentucky	Webster	37	34	14
ERP00650	06500006	DC0410WKY9C	Kentucky	Webster	37	34	14
ERP00650	06500007	DC0410WKY9RR	Kentucky	Webster	37	34	14
ERP00650	06500008	DC049WKY10	Kentucky	Webster	37	34	11
ERP00650	06500009	DC049WKY13A	Kentucky	Webster	37	34	11
ERP00650	06500010	DC049WKY13B	Kentucky	Webster	37	34	11
ERP00650	06500011	DC049WKY13C	Kentucky	Webster	37	34	11
ERP00650	06500012	DC049WKY9A	Kentucky	Webster	37	34	11
ERP00650	06500013	DC049WKY9B	Kentucky	Webster	37	34	11
ERP00650	06500014	DC049WKY9C	Kentucky	Webster	37	34	11
ERP00650	06500015	DC049WKY9RR	Kentucky	Webster	37	34	11
ERP00650	06500016	P42WKY6Davis	Kentucky	Hopkins	37	23	52

Table 1. -- Identification numbers, locations, and descriptive information for 729 National Coal Quality Inv
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Job number	Laboratory number	Field number	State	County	Latitude degrees	Latitude minutes	Latitude seconds
ERP00650	06500017	P42WKY6DavisRF	Kentucky	Hopkins	37	23	52
ERP00650	06500018	P42WKY8B1	Kentucky	Hopkins	37	23	52
ERP00650	06500019	P42WKY8B2	Kentucky	Hopkins	37	23	52
ERP00650	06500020	P42WKY9A	Kentucky	Hopkins	37	23	52
ERP00650	06500021	P42WKY9B	Kentucky	Hopkins	37	23	52
ERP00650	06500022	P42WKY9C	Kentucky	Hopkins	37	23	52
ERP00650	06500023	P42WKY9RR	Kentucky	Hopkins	37	23	52
ERP00650	06500024	P42WKYColch	Kentucky	Hopkins	37	23	52
ERP00650	06500025	P42WKYColchRR	Kentucky	Hopkins	37	23	52
ERP00650	06500026	P42WKY11A	Kentucky	Hopkins	37	23	52
ERP00650	06500027	P42WKY11B	Kentucky	Hopkins	37	23	52
ERP00650	06500028	P42WKY11C	Kentucky	Hopkins	37	23	52
ERP00650	06500029	P42WKY11D	Kentucky	Hopkins	37	23	52
Eastern Province							
ERP00249	E-201622	92789C	Kentucky	Pulaski			
ERP00249	E-201623	92790C	Kentucky	Pulaski			
ERP00249	E-201624	92807C	Kentucky	Pulaski			
ERP00249	E-201625	92808C	Kentucky	Pulaski			
ERP00249	E-201626	92809C	Kentucky	Pulaski			
ERP00249	E-201627	92810C	Kentucky	Pulaski			
ERP00249	E-201628	92811C	Kentucky	Pulaski			
ERP00249	E-201629	92812C	Kentucky	Pulaski			
ERP00249	E-201630	5498C	Kentucky	Knox	36	43	53
ERP00249	E-201631	5499C	Kentucky	Knox	36	43	53
ERP00249	E-201632	5500C	Kentucky	Knox	36	43	53

Table 1. -- Identification numbers, locations, and descriptive information for 729 National Coal Quality Inv
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Job number	Laboratory number	Field number	State	County	Latitude degrees	Latitude minutes	Latitude seconds
ERP00249	E-201633	5501C	Kentucky	Knox	36	43	53
ERP00249	E-201634	5502C	Kentucky	Knox	36	43	53
ERP00249	E-201635	5503C	Kentucky	Knox	36	43	53
ERP00249	E-201636	5504C	Kentucky	Knox	36	43	53
ERP00249	E-201637	92790D	Kentucky	Pulaski			
ERP00249	E-201638	5498D	Kentucky	Knox	36	43	53
ERP00250	E-201639	92791A	Kentucky	Pulaski			
ERP00250	E-201640	92792A	Kentucky	Pulaski			
ERP00250	E-201641	92793A	Kentucky	Pulaski			
ERP00250	E-201642	92794A	Kentucky	Pulaski			
ERP00250	E-201643	92795A	Kentucky	Pulaski			
ERP00250	E-201644	92796A	Kentucky	Pulaski			
ERP00250	E-201645	92797A	Kentucky	Pulaski			
ERP00250	E-201646	92798A	Kentucky	Pulaski			
ERP00250	E-201647	92799A	Kentucky	Pulaski			
ERP00250	E-201648	92800A	Kentucky	Pulaski			
ERP00250	E-201649	92801A	Kentucky	Pulaski			
ERP00250	E-201650	92802A	Kentucky	Pulaski			
ERP00250	E-201651	92803A	Kentucky	Pulaski			
ERP00250	E-201652	92804A	Kentucky	Pulaski			
ERP00250	E-201653	92805A	Kentucky	Pulaski			
ERP00250	E-201654	92806A	Kentucky	Pulaski			
ERP00250	E-201655	92794D	Kentucky	Pulaski			
ERP00250	E-201656	92802D	Kentucky	Pulaski			
ERP00423	E-227705	PAS 1321-1	Pennsylvania	Elk	41	25	50
ERP00423	E-227706	PAS 1321-2	Pennsylvania	Elk	41	25	50
ERP00423	E-227707	PAS 1322	Pennsylvania	Elk	41	25	48

Table 1. -- Identification numbers, locations, and descriptive information for 729 National Coal Quality Inv
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Job number	Laboratory number	Field number	State	County	Latitude degrees	Latitude minutes	Latitude seconds
ERP00423	E-227708	PAS 1400	Pennsylvania	Somerset	40	7	18
ERP00423	E-227709	PAS 1401	Pennsylvania	Somerset	40	7	18
ERP00423	E-227710	PAS 1402	Pennsylvania	Somerset	40	7	18
ERP00423	E-227711	PAS 1403	Pennsylvania	Somerset	40	7	18
ERP00423	E-227712	PAS 1404	Pennsylvania	Somerset	40	7	18
ERP00423	E-227713	PAS 1405	Pennsylvania	Somerset	39	53	36
ERP00423	E-227714	PAS 1406	Pennsylvania	Somerset	39	53	32
ERP00423	E-227715	PAS 1407	Pennsylvania	Somerset	39	53	5
ERP00423	E-227716	PAS 1408	Pennsylvania	Somerset	39	57	16
ERP00423	E-227717	PAS 1409	Pennsylvania	Somerset	39	53	36
ERP00423	E-227718	PAS 1410	Pennsylvania	Somerset	39	53	32
ERP00423	E-227719	PAS 1411	Pennsylvania	Somerset	39	53	5
ERP00423	E-227720	PAS 1412	Pennsylvania	Somerset	39	57	16
ERP00423	E-227721	PAS 1413	Pennsylvania	Somerset	40	5	0
ERP00423	E-227722	PAS 1414	Pennsylvania	Somerset	40	7	18
ERP00423	E-227723	PAS 1415	Pennsylvania	Somerset	40	4	27
ERP00423	E-227724	PAS 1416	Pennsylvania	Somerset	40	4	27
ERP00423	E-227725	PAS 1417	Pennsylvania	Somerset	39	53	5
ERP00423	E-227726	PAS 1418	Pennsylvania	Somerset	39	53	39
ERP00423	E-227727	PAS 1419	Pennsylvania	Somerset	40	4	27
ERP00427	E-229115	PAS 1420	Pennsylvania	Elk	41	16	35
ERP00427	E-229116	PAS 1421	Pennsylvania	Elk	41	16	35
ERP00427	E-229117	PAS 1422	Pennsylvania	Elk	41	16	35
ERP00427	E-229118	PAS 1423	Pennsylvania	Elk	41	16	35
ERP00427	E-229119	PAS 1424	Pennsylvania	Elk	41	16	22
ERP00427	E-229120	PAS 1425	Pennsylvania	Washington	40	7	45
ERP00427	E-229121	PAS 1426	Pennsylvania	Washington	40	7	39

Table 1. -- Identification numbers, locations, and descriptive information for 729 National Coal Quality Inv
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Job number	Laboratory number	Field number	State	County	Latitude degrees	Latitude minutes	Latitude seconds
ERP00427	E-229122	PAS 1427	Pennsylvania	Washington	40	7	39
ERP00427	E-229123	PAS 1428	Pennsylvania	Washington	40	7	39
ERP00427	E-229124	PAS 1429	Pennsylvania	Washington	40	7	39
ERP00424	E-227728	DUN-413	Tennessee	Anderson	36	8	30
ERP00424	E-227729	EAG-68	Tennessee	Claiborne	36	34	9
ERP00424	E-227730	NEM-2041	Tennessee	Fentress	36	24	16
ERP00424	E-227731	PEW-2438	Tennessee	Scott	36	13	45
ERP00424	E-227732	RICH-51	Tennessee	Cumberland	35	55	27
ERP00424	E-227733	CAR-0315	Tennessee	Morgan	35	58	56
ERP00424	E-227734	WAL-2182	Tennessee	Scott	36	11	40
ERP00424	E-227735	STR-1389	Tennessee	Claiborne	36	34	26
ERP00424	E-227736	EAG-96S TOP	Tennessee	Claiborne	36	32	17
ERP00424	E-227737	EAG-96S BTM	Tennessee	Claiborne	36	32	17
ERP00063	E-141556	WVGS#18883	West Virginia	Marion	39	28	15
ERP00063	E-141557	WVGS#18493	West Virginia	Boone	38	1	53
ERP00063	E-141558	WVGS#18505	West Virginia	Boone	38	1	48
ERP00063	E-141559	WVGS#18471	West Virginia	Boone	37	59	52
ERP00063	E-141560	WVGS#18485	West Virginia	Kanawha	38	0	16
ERP00063	E-141561	WVGS#18879	West Virginia	Kanawha	38	16	36
ERP00063	E-141562	WVGS#18882	West Virginia	Kanawha	38	15	12
ERP00063	E-141563	WVGS#18881	West Virginia	Kanawha	38	17	6
ERP00063	E-141564	WVGS#18919	West Virginia	Nicholas	38	19	3
ERP00063	E-141565	WVGS#18852	West Virginia	Webster	38	30	5
ERP00063	E-141566	WVGS#18854	West Virginia	Webster	38	29	16
ERP00063	E-141567	WVGS#18245	West Virginia	Mingo	37	48	54
ERP00063	E-141568	WVGS#18926	West Virginia	Nicholas	38	18	28
ERP00063	E-141569	WVGS#18923	West Virginia	Nicholas	38	18	28

Table 1. -- Identification numbers, locations, and descriptive information for 729 National Coal Quality Inv
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Job number	Laboratory number	Field number	State	County	Latitude degrees	Latitude minutes	Latitude seconds
ERP00063	E-141570	WVGS#18609	West Virginia	Boone	38	2	24
ERP00063	E-141571	WVGS#18340	West Virginia	Kanawha	38	12	47
ERP00063	E-141572	WVGS#18456	West Virginia	Kanawha	38	0	1
ERP00063	E-141573	WVGS#18457	West Virginia	Kanawha	38	0	1
ERP00063	E-141574	WVGS#18458	West Virginia	Kanawha	38	0	1
ERP00063	E-141575	WVGS#18443	West Virginia	Kanawha	38	12	34
ERP00063	E-141576	WVGS#18423	West Virginia	Wayne	38	3	1
ERP00063	E-141577	WVGS#18436	West Virginia	Wayne	38	3	1
ERP00063	E-141578	WVGS#18847	West Virginia	Webster	38	31	43
ERP00063	E-141579	WVGS#18850	West Virginia	Webster	38	31	19
ERP00063	E-141580	WVGS#18928	West Virginia	Nicholas	38	18	28
ERP00063	E-141581	WVGS#18907	West Virginia	Nicholas	38	18	0
ERP00063	E-141582	WVGS#18611	West Virginia	Boone	38	2	25
ERP00063	E-141583	WVGS#18596	West Virginia	Boone	37	1	30
ERP00063	E-141584	WVGS#18265	West Virginia	Mingo	37	49	43
ERP00063	E-141585	WVGS#18300	West Virginia	Mingo	37	52	17
ERP00063	E-141586	WVGS#18308	West Virginia	Mingo	37	52	12
ERP00075	E-159650	WVGS#18858	West Virginia	Harrison	39	11	35
ERP00075	E-159651	WVGS#18855	West Virginia	Grant	39	17	41
ERP00075	E-159652	WVGS#18869	West Virginia	Preston	39	22	7
ERP00075	E-159653	WVGS#1184	West Virginia	Fayette	38	9	41
ERP00075	E-159654	WVGS#18218	West Virginia	Mingo	37	50	51
ERP00075	E-159655	WVGS#18327	West Virginia	Kanawha	38	12	47
ERP00075	E-159656	WVGS#11497	West Virginia	Raleigh	37	56	47
ERP00075	E-159657	WVGS#18449	West Virginia	Kanawha	38	12	24
ERP00075	E-159658	WVGS#9696	West Virginia	Kanawha	38	2	30
ERP00075	E-159659	WVGS#15952	West Virginia	Webster	38	25	47

Table 1. -- Identification numbers, locations, and descriptive information for 729 National Coal Quality Inv
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Job number	Laboratory number	Field number	State	County	Latitude degrees	Latitude minutes	Latitude seconds
ERP00075	E-159660	WVGS#15986	West Virginia	Webster	38	25	50
ERP00075	E-159661	WVGS#18873	West Virginia	Monongalia	39	39	32
ERP00075	E-159662	WVGS#18875	West Virginia	Monongalia	39	39	32
ERP00075	E-159663	WVGS#18857	West Virginia	Monongalia	39	40	7
ERP00075	E-159664	WVGS#18865	West Virginia	Monongalia	39	42	15
ERP00075	E-159665	WVGS#18862	West Virginia	Monongalia	39	42	32
ERP00075	E-159666	WVGS#18859	West Virginia	Harrison	39	6	20
ERP00075	E-159667	WVGS#18866	West Virginia	Grant	39	19	12
ERP00075	E-159668	WVGS#18867	West Virginia	Grant	39	19	12
ERP00075	E-159669	WVGS#18868	West Virginia	Grant	39	18	55
ERP00075	E-159670	WVGS#18872	West Virginia	Preston	39	22	41
ERP00075	E-159671	WVGS#18870	West Virginia	Preston	39	20	51
ERP00075	E-159672	WVGS#18449B	West Virginia	Kanawha	38	12	24
ERP00076	E-159673	WVGS#18904	West Virginia	Boone	38	6	18
ERP00076	E-159674	WVGS#11506	West Virginia	Boone	37	53	53
ERP00076	E-159675	WVGS#11505	West Virginia	Boone	37	53	42
ERP00076	E-159676	WVGS#11503	West Virginia	Boone	37	53	42
ERP00076	E-159677	WVGS#11502	West Virginia	Boone	37	53	59
ERP00076	E-159678	WVGS#11500	West Virginia	Boone	37	53	59
ERP00076	E-159679	WVGS#11499	West Virginia	Boone	37	53	59
ERP00076	E-159680	WVGS#11498	West Virginia	Boone	37	53	59
ERP00076	E-159681	WVGS#18902	West Virginia	Boone	38	6	57
ERP00076	E-159682	WVGS#18903	West Virginia	Boone	38	5	53
ERP00076	E-159683	WVGS#18991	West Virginia	Boone	38	5	53
ERP00076	E-159684	WVGS#18905	West Virginia	Boone	38	6	18
ERP00076	E-159685	WVGS#7798	West Virginia	Nicholas	38	20	47
ERP00076	E-159686	WVGS#7767	West Virginia	Nicholas	38	20	47

Table 1. -- Identification numbers, locations, and descriptive information for 729 National Coal Quality Inv
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Job number	Laboratory number	Field number	State	County	Latitude degrees	Latitude minutes	Latitude seconds
ERP00076	E-159687	WVGS#7796	West Virginia	Nicholas	38	20	47
ERP00076	E-159688	WVGS#7784	West Virginia	Nicholas	38	21	32
ERP00076	E-159689	WVGS#7782	West Virginia	Nicholas	38	21	32
ERP00076	E-159690	WVGS#7775	West Virginia	Nicholas	38	21	32
ERP00076	E-159691	WVGS#7792	West Virginia	Nicholas	38	21	32
ERP00076	E-159692	WVGS#18610	West Virginia	Boone	38	2	25
ERP00076	E-159693	WVGS#9697	West Virginia	Boone	38	1	33
ERP00076	E-159694	WVGS#18902B	West Virginia	Boone	38	6	57
ERP00128	E-183433	WVGS#19478	West Virginia	Boone	38	3	51
ERP00128	E-183434	WVGS#19479	West Virginia	Lincoln	38	4	38
ERP00128	E-183435	WVGS#19483	West Virginia	Lincoln	38	4	24
ERP00128	E-183436	WVGS#19484	West Virginia	Lincoln	38	4	1
ERP00128	E-183437	WVGS#19485	West Virginia	Boone	38	3	40
ERP00128	E-183438	WVGS#19486	West Virginia	Boone	38	3	41
ERP00128	E-183439	WVGS#19488	West Virginia	Boone	38	3	29
ERP00128	E-183440	WVGS#19489	West Virginia	Boone	38	3	29
ERP00128	E-183441	WVGS#19491	West Virginia	Boone	38	4	45
ERP00128	E-183442	WVGS#19492	West Virginia	Lincoln	38	5	56
ERP00128	E-183443	WVGS#19588	West Virginia	Logan	37	48	4
ERP00128	E-183444	WVGS#19589	West Virginia	Logan	37	48	4
ERP00128	E-183445	WVGS#19590	West Virginia	Logan	37	48	4
ERP00128	E-183446	WVGS#19591	West Virginia	Logan	37	46	57
ERP00128	E-183447	WVGS#19593A	West Virginia	Logan	37	46	57
ERP00128	E-183448	WVGS#19594	West Virginia	Logan	37	49	0
ERP00128	E-183449	WVGS#19595	West Virginia	Logan	37	49	0
ERP00128	E-183450	WVGS#19596A	West Virginia	Logan	37	48	59
ERP00128	E-183451	WVGS#19597	West Virginia	Logan	37	48	58

Table 1. -- Identification numbers, locations, and descriptive information for 729 National Coal Quality Inv
[blank space indicates no data]

Job number	Laboratory number	Field number	State	County	Latitude degrees	Latitude minutes	Latitude seconds
ERP00128	E-183452	WVGS#19598	West Virginia	Logan	37	49	0
ERP00128	E-183453	WVGS#19599	West Virginia	Logan	37	48	53
ERP00128	E-183454	WVGS#19600	West Virginia	Logan	37	49	7
ERP00128	E-183455	WVGS#19601	West Virginia	Logan	37	49	21
ERP00128	E-183456	WVGS#19602	West Virginia	Logan	37	49	21
ERP00128	E-183457	WVGS#19603	West Virginia	Logan	37	49	21
ERP00128	E-183458	WVGS#19604	West Virginia	Logan	37	49	21
ERP00128	E-183459	WVGS#19633	West Virginia	Braxton	38	37	9
ERP00128	E-183460	WVGS#19634	West Virginia	Braxton	38	37	9
ERP00128	E-183461	WVGS#20000	West Virginia	Braxton	38	36	33
ERP00128	E-183462	WVGS#20001	West Virginia	Upshur	38	55	18
ERP00128	E-183463	WVGS#19593B	West Virginia	Logan	37	46	57
ERP00128	E-183464	WVGS#19596B	West Virginia	Logan	37	48	59
ERP00369	E-218036	WVGS#20003	West Virginia	Logan	37	50	17
ERP00369	E-218037	WVGS#20009	West Virginia	Logan	37	50	17
ERP00369	E-218038	WVGS#20008	West Virginia	Logan	37	50	17
ERP00369	E-218039	WVGS#20048	West Virginia	Logan	37	48	34
ERP00369	E-218040	WVGS#20047	West Virginia	Logan	37	48	25
ERP00369	E-218041	WVGS#21554	West Virginia	Raleigh	37	40	0
ERP00369	E-218042	WVGS#19481	West Virginia	Lincoln	38	4	38
ERP00369	E-218043	WVGS#21517	West Virginia	Upshur	38	54	28
ERP00369	E-218044	WVGS#21509	West Virginia	Upshur	38	54	28
ERP00369	E-218045	WVGS#21536	West Virginia	Upshur	38	54	28
ERP00369	E-218046	WVGS#19490	West Virginia	Boone	38	3	29
ERP00369	E-218047	WVGS#21626	West Virginia	Boone	38	11	57
ERP00369	E-218048	WVGS#21547	West Virginia	Raleigh	38	40	0
ERP00369	E-218049	WVGS#21692	West Virginia	Logan	37	50	24

Table 1. -- Identification numbers, locations, and descriptive information for 729 National Coal Quality Inv
[blank space indicates no data]

Job number	Laboratory number	Field number	State	County	Latitude degrees	Latitude minutes	Latitude seconds
ERP00369	E-218050	WVGS#21724	West Virginia	Lewis	38	49	15
ERP00369	E-218051	WVGS#21983	West Virginia	Lewis	38	49	15
ERP00369	E-218052	WVGS#21966	West Virginia	Lewis	38	49	15
ERP00369	E-218053	WVGS#21965	West Virginia	Lewis	38	49	15
ERP00369	E-218054	WVGS#21700	West Virginia	Monongalia	39	42	13
ERP00369	E-218055	WVGS#9687	West Virginia	Nicholas	38	18	41
ERP00369	E-218056	WVGS#25242	West Virginia	Monongalia	39	38	38
ERP00369	E-218057	WVGS#25239	West Virginia	Monongalia	39	38	38
ERP00369	E-218058	WVGS#25237	West Virginia	Monongalia	39	38	38
ERP00369	E-218059	WVGS#22193	West Virginia	Harrison	39	16	6
ERP00369	E-218060	WVGS#22169	West Virginia	Braxton	38	40	56
ERP00369	E-218061	WVGS#22167	West Virginia	Braxton	38	40	56
ERP00369	E-218062	WVGS#22066	West Virginia	Boone	37	51	46
ERP00369	E-218063	WVGS#22295	West Virginia	Boone	37	51	46
ERP00369	E-218064	WVGS#22280	West Virginia	Boone	37	51	46
ERP00369	E-218065	WVGS#22188	West Virginia	Boone	37	51	46
ERP00369	E-218066	WVGS#21673	West Virginia	Raleigh	37	40	0
ERP00369	E-218067	WVGS#22126	West Virginia	Mingo	37	40	0
ERP00369	E-218068	WVGS#22100	West Virginia	Kanawha	38	15	6
ERP00454	E-245990	WVGS#28476D	West Virginia	Marion	39	28	5
ERP00454	E-245991	WVGS#22047	West Virginia	Braxton	38	40	56
ERP00454	E-245992	WVGS#22049	West Virginia	Braxton	38	40	56
ERP00454	E-245993	WVGS#22140	West Virginia	Braxton	38	40	56
ERP00454	E-245994	WVGS#22186	West Virginia	Braxton	38	40	56
ERP00454	E-245995	WVGS#22205	West Virginia	Braxton	38	40	56
ERP00454	E-245996	WVGS#22215	West Virginia	Braxton	38	40	56
ERP00454	E-245997	WVGS#22225	West Virginia	Braxton	38	40	56

Table 1. -- Identification numbers, locations, and descriptive information for 729 National Coal Quality Inv
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Job number	Laboratory number	Field number	State	County	Latitude degrees	Latitude minutes	Latitude seconds
ERP00454	E-245998	WVGS#22253	West Virginia	Braxton	38	40	56
ERP00454	E-245999	WVGS#22254	West Virginia	Braxton	38	40	56
ERP00454	E-246000	WVGS#22256	West Virginia	Braxton	38	40	56
ERP00454	E-246001	WVGS#22264	West Virginia	Braxton	38	40	56
ERP00454	E-246002	WVGS#25150	West Virginia	Monongalia	39	38	38
ERP00454	E-246003	WVGS#25151	West Virginia	Monongalia	39	38	38
ERP00454	E-246004	WVGS#25190	West Virginia	Monongalia	39	38	38
ERP00454	E-246005	WVGS#25192	West Virginia	Monongalia	39	38	38
ERP00454	E-246006	WVGS#28252	West Virginia	Marshall	39	54	29
ERP00454	E-246007	WVGS#28261	West Virginia	Marshall	39	54	29
ERP00454	E-246008	WVGS#28293	West Virginia	Marshall	39	48	48
ERP00454	E-246009	WVGS#28347	West Virginia	Marshall	39	43	54
ERP00454	E-246010	WVGS#28451	West Virginia	Monongalia	39	37	30
ERP00454	E-246011	WVGS#28452	West Virginia	Harrison	39	19	20
ERP00454	E-246012	WVGS#28476	West Virginia	Marion	39	28	5
ERP00454	E-246013	WVGS#16733	West Virginia	Grant	39	16	28
ERP00454	E-246014	WVGS#16748	West Virginia	Grant	39	16	28
ERP00454	E-246015	WVGS#16760	West Virginia	Grant	39	16	28
ERP00454	E-246016	WVGS#17242	West Virginia	Mingo	37	39	47
ERP00454	E-246017	WVGS#17243	West Virginia	Mingo	37	39	47
ERP00454	E-246018	WVGS#17245	West Virginia	Mingo	37	39	47
ERP00454	E-246019	WVGS#17246	West Virginia	Mingo	37	39	47
ERP00454	E-246020	WVGS#17247	West Virginia	Mingo	37	39	47
ERP00454	E-246021	WVGS#17248	West Virginia	Mingo	37	39	47
ERP00454	E-246022	WVGS#17259	West Virginia	Logan	37	48	32
ERP00454	E-246023	WVGS#17261	West Virginia	Logan	37	48	32
ERP00454	E-246024	WVGS#17262	West Virginia	Logan	37	48	32

Table 1. -- Identification numbers, locations, and descriptive information for 729 National Coal Quality Inv
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Job number	Laboratory number	Field number	State	County	Latitude degrees	Latitude minutes	Latitude seconds
ERP00454	E-246025	WVGS#17264	West Virginia	Logan	37	48	32
ERP00454	E-246026	WVGS#18052	West Virginia	Wayne	38	1	32
ERP00454	E-246027	WVGS#18055	West Virginia	Wayne	38	3	5
ERP00454	E-246028	WVGS#18057	West Virginia	Wayne	38	3	5
ERP00454	E-246029	WVGS#18059	West Virginia	Wayne	38	3	5
ERP00454	E-246030	WVGS#18406	West Virginia	Wayne	38	3	1
ERP00454	E-246031	WVGS#18408	West Virginia	Wayne	38	3	1
ERP00454	E-246032	WVGS#21939	West Virginia	Lewis	39	49	15
ERP00454	E-246033	WVGS#22014	West Virginia	Braxton	38	40	56
ERP00454	E-246034	WVGS#22038	West Virginia	Braxton	38	40	56
ERP00454	E-246035	WVGS#17261D	West Virginia	Logan	37	48	32

ventory samples.

Latitude decimal degrees	Longitude degrees	Longitude minutes	Longitude seconds	Longitude decimal degrees	Formation
44.2833	-105	30	0	-105.5000	Ft. Union Formation
44.2833	-105	30	0	-105.5000	Ft. Union Formation
44.2833	-105	30	0	-105.5000	Ft. Union Formation
44.2833	-105	30	0	-105.5000	Ft. Union Formation
44.2833	-105	30	0	-105.5000	Ft. Union Formation
44.2833	-105	30	0	-105.5000	Ft. Union Formation
44.2833	-105	30	0	-105.5000	Ft. Union Formation
44.2833	-105	30	0	-105.5000	Ft. Union Formation
44.2833	-105	30	0	-105.5000	Ft. Union Formation
44.2833	-105	30	0	-105.5000	Ft. Union Formation
44.2833	-105	30	0	-105.5000	Ft. Union Formation
44.2833	-105	30	0	-105.5000	Ft. Union Formation
44.2833	-105	30	0	-105.5000	Ft. Union Formation
44.1472	-105	21	33	-105.3592	Ft. Union Formation
44.1472	-105	21	33	-105.3592	Ft. Union Formation
44.1472	-105	21	33	-105.3592	Ft. Union Formation
44.1472	-105	21	33	-105.3592	Ft. Union Formation
44.1472	-105	21	33	-105.3592	Ft. Union Formation
44.1472	-105	21	33	-105.3592	Ft. Union Formation
44.1472	-105	21	33	-105.3592	Ft. Union Formation
44.1472	-105	21	33	-105.3592	Ft. Union Formation
44.1472	-105	21	33	-105.3592	Ft. Union Formation
44.1472	-105	21	33	-105.3592	Ft. Union Formation
44.1472	-105	21	33	-105.3592	Ft. Union Formation
44.1472	-105	21	33	-105.3592	Ft. Union Formation

ventory samples.

Latitude decimal degrees	Longitude degrees	Longitude minutes	Longitude seconds	Longitude decimal degrees	Formation
43.4706	-105	21	26	-105.3572	Ft. Union Formation
43.4706	-105	21	26	-105.3572	Ft. Union Formation
43.4706	-105	21	26	-105.3572	Ft. Union Formation
43.4706	-105	21	26	-105.3572	Ft. Union Formation
43.4706	-105	21	26	-105.3572	Ft. Union Formation
43.4706	-105	21	26	-105.3572	Ft. Union Formation
43.4706	-105	21	26	-105.3572	Ft. Union Formation
43.4706	-105	21	26	-105.3572	Ft. Union Formation
43.7081	-105	13	16	-105.2211	Ft. Union Formation
43.7081	-105	13	16	-105.2211	Ft. Union Formation
43.7081	-105	13	16	-105.2211	Ft. Union Formation
43.7081	-105	13	16	-105.2211	Ft. Union Formation
43.7081	-105	13	16	-105.2211	Ft. Union Formation
43.7081	-105	13	16	-105.2211	Ft. Union Formation
43.7081	-105	13	16	-105.2211	Ft. Union Formation
43.7081	-105	13	16	-105.2211	Ft. Union Formation
44.1472	-105	21	33	-105.3592	Ft. Union Formation
43.4706	-105	21	26	-105.3572	Ft. Union Formation
44.1472	-105	21	33	-105.3592	Ft. Union Formation
44.1472	-105	21	33	-105.3592	Ft. Union Formation
44.1472	-105	21	33	-105.3592	Ft. Union Formation
44.1472	-105	21	33	-105.3592	Ft. Union Formation
44.1472	-105	21	33	-105.3592	Ft. Union Formation
44.1472	-105	21	33	-105.3592	Ft. Union Formation
44.1472	-105	21	33	-105.3592	Ft. Union Formation
44.1472	-105	21	33	-105.3592	Ft. Union Formation
44.1472	-105	21	33	-105.3592	Ft. Union Formation

ventory samples.

Latitude ecimal degree	Longitude degrees	Longitude minutes	Longitude seconds	Longitude decimal degrees	Formation
44.1472	-105	21	33	-105.3592	Ft. Union Formation
44.1472	-105	21	33	-105.3592	Ft. Union Formation
44.1472	-105	21	33	-105.3592	Ft. Union Formation
44.1472	-105	21	33	-105.3592	Ft. Union Formation
44.1472	-105	21	33	-105.3592	Ft. Union Formation
44.1472	-105	21	33	-105.3592	Ft. Union Formation
44.1472	-105	21	33	-105.3592	Ft. Union Formation
44.1472	-105	21	33	-105.3592	Ft. Union Formation
44.1472	-105	21	33	-105.3592	Ft. Union Formation
44.1472	-105	21	33	-105.3592	Ft. Union Formation
44.1472	-105	21	33	-105.3592	Ft. Union Formation
44.1472	-105	21	33	-105.3592	Ft. Union Formation
44.1472	-105	21	33	-105.3592	Ft. Union Formation
44.1472	-105	21	33	-105.3592	Ft. Union Formation
44.1472	-105	21	33	-105.3592	Ft. Union Formation
44.1472	-105	21	33	-105.3592	Ft. Union Formation
44.1472	-105	21	33	-105.3592	Ft. Union Formation
44.1472	-105	21	33	-105.3592	Ft. Union Formation
44.1472	-105	21	33	-105.3592	Ft. Union Formation
44.1472	-105	21	33	-105.3592	Ft. Union Formation
44.1472	-105	21	33	-105.3592	Ft. Union Formation
44.1472	-105	21	33	-105.3592	Ft. Union Formation
44.1472	-105	21	33	-105.3592	Ft. Union Formation
44.1472	-105	21	33	-105.3592	Ft. Union Formation
44.1472	-105	21	33	-105.3592	Ft. Union Formation
44.1472	-105	21	33	-105.3592	Ft. Union Formation
44.1472	-105	21	33	-105.3592	Ft. Union Formation

ventory samples.

Latitude decimal degrees	Longitude degrees	Longitude minutes	Longitude seconds	Longitude decimal degrees	Formation
44.1472	-105	21	33	-105.3592	Ft. Union Formation
44.1472	-105	21	33	-105.3592	Ft. Union Formation
44.1472	-105	21	33	-105.3592	Ft. Union Formation
44.1472	-105	21	33	-105.3592	Ft. Union Formation
44.1472	-105	21	33	-105.3592	Ft. Union Formation
44.1472	-105	21	33	-105.3592	Ft. Union Formation
44.1472	-105	21	33	-105.3592	Ft. Union Formation
44.1472	-105	21	33	-105.3592	Ft. Union Formation
44.1472	-105	21	33	-105.3592	Ft. Union Formation
44.1472	-105	21	33	-105.3592	Ft. Union Formation
43.4706	-105	21	26	-105.3572	Ft. Union Formation
43.4706	-105	21	26	-105.3572	Ft. Union Formation
43.4706	-105	21	26	-105.3572	Ft. Union Formation
43.4706	-105	21	26	-105.3572	Ft. Union Formation
43.4706	-105	21	26	-105.3572	Ft. Union Formation
43.4706	-105	21	26	-105.3572	Ft. Union Formation
43.4706	-105	21	26	-105.3572	Ft. Union Formation
43.4706	-105	21	26	-105.3572	Ft. Union Formation
43.4706	-105	21	26	-105.3572	Ft. Union Formation
43.4706	-105	21	26	-105.3572	Ft. Union Formation
43.4706	-105	21	26	-105.3572	Ft. Union Formation
43.4706	-105	21	26	-105.3572	Ft. Union Formation
43.7081	-105	13	16	-105.2211	Ft. Union Formation
43.7081	-105	13	16	-105.2211	Ft. Union Formation
43.7081	-105	13	16	-105.2211	Ft. Union Formation
43.7081	-105	13	16	-105.2211	Ft. Union Formation
44.1472	-105	21	33	-105.3592	Ft. Union Formation

ventory samples.

Latitude decimal degrees	Longitude degrees	Longitude minutes	Longitude seconds	Longitude decimal degrees	Formation
44.1472	-105	21	33	-105.3592	Ft. Union Formation
41.7960	-108	45	22	-108.7560	ft. Union Formation
41.7289	-108	40	59	-108.6830	ft. Union Formation
41.7280	-108	40	52	-108.6810	ft. Union Formation
41.8270	-108	49	44	-108.8290	ft. Union Formation
41.8240	-108	49	26	-108.8240	ft. Union Formation
41.7420	-110	37	41	-110.6280	Adaville Formation
41.7420	-110	37	41	-110.6280	Adaville Formation
41.7420	-110	37	41	-110.6280	Adaville Formation
41.7420	-110	37	41	-110.6280	Adaville Formation
41.7280	-110	43	26	-110.7240	Adaville Formation
41.7280	-110	43	26	-110.7240	Adaville Formation
38.2838	-105	9	58	-105.1662	Vermejo Formation
38.2838	-105	9	58	-105.1662	Vermejo Formation
38.2838	-105	9	58	-105.1662	Vermejo Formation
38.2838	-105	9	58	-105.1662	Vermejo Formation
39.1148	-112	33	17	-112.5547	Dakota Sandstone
39.1148	-112	33	17	-112.5547	Dakota Sandstone
39.1148	-112	33	17	-112.5547	Dakota Sandstone
39.1148	-112	33	17	-112.5547	Dakota Sandstone
37.2603	-108	5	55	-108.0986	Menefee Formation
37.2603	-108	5	55	-108.0986	Menefee Formation
37.2603	-108	5	55	-108.0986	Menefee Formation
40.3498	-107	5	9	-107.0859	Williams Fork Formation

ventory samples.

Latitude decimal degrees	Longitude degrees	Longitude minutes	Longitude seconds	Longitude decimal degrees	Formation
40.3498	-107	5	9	-107.0859	Williams Fork Formation
40.3786	-107	15	2	-107.2506	Williams Fork Formation
40.3786	-107	15	2	-107.2506	Williams Fork Formation
40.3901	-107	10	4	-107.1677	Williams Fork Formation
38.9328	-107	26	56	-107.4488	Mesaverde Fm., Bowie Shale Mer
40.4298	-107	31	27	-107.5243	Williams Fork Formation
40.4298	-107	31	27	-107.5243	Williams Fork Formation
40.1680	-108	43	39	-108.7276	Mesaverde Formation
40.1680	-108	43	39	-108.7276	Mesaverde Formation
39.4406	-108	46	50	-108.7807	Mesaverde Formation
38.9331	-107	32	48	-107.5467	Mesaverde Fm., Bowie Shale Mer
38.9331	-107	32	48	-107.5467	Mesaverde Fm., Bowie Shale Mer
40.4298	-107	31	27	-107.5243	Williams Fork Formation
40.4298	-107	31	27	-107.5243	Williams Fork Formation
40.4298	-107	31	27	-107.5243	Williams Fork Formation
40.2558	-107	50	1	-107.8336	Williams Fork Formation
40.2600	-107	48	48	-107.8133	Williams Fork Formation
38.9275	-107	26	36	-107.4433	Mesaverde Formation
37.2603	-108	5	55	-108.0986	Menefee Formation
39.1148	-108	33	17	-108.5547	Dakota Sandstone
38.9331	-107	32	48	-107.5467	Mesaverde Fm., Bowie Shale Mer
38.9275	-107	26	36	-107.4433	Mesaverde Formation
38.9328	-107	26	56	-107.4488	Mesaverde Fm., Bowie Shale Mer
39.4406	-108	46	50	-108.7807	Mesaverde Formation
40.3786	-107	15	2	-107.2506	Williams Fork Formation
40.3901	-107	10	4	-107.1677	Williams Fork Formation
40.3498	-107	5	9	-107.0859	Williams Fork Formation

ventory samples.

Latitude decimal degrees	Longitude degrees	Longitude minutes	Longitude seconds	Longitude decimal degrees	Formation
38.9275	-107	26	36	-107.4433	Mesaverde Formation
38.9275	-107	26	36	-107.4433	Mesaverde Formation
40.1662	-108	43	37	-108.7268	Mesaverde Formation
40.1662	-108	43	37	-108.7268	Mesaverde Formation
40.1662	-108	43	37	-108.7268	Mesaverde Formation
40.2389	-107	49	20	-107.8222	Williams Fork Formation, C seam
40.2380	-107	49	10	-107.8194	Williams Fork Formation, D seam
40.2543	-107	49	39	-107.8275	Williams Fork Formation, F seam
40.2528	-107	49	23	-107.8231	Williams Fork Formation, X seam
40.2377	-107	49	12	-107.8200	Williams Fork Formation, B seam
40.2506	-107	49	50	-107.8305	Williams Fork Formation, X bed
40.2542	-107	49	52	-107.8311	Williams Fork Formation, F bed
40.4242	-107	35	20	-107.5890	Williams Fork Formation
40.4229	-107	35	22	-107.5893	Williams Fork Formation
37.1146	-104	48	27	-104.8075	Raton Formation
37.1153	-104	48	37	-104.8103	Raton Formation
38.9275	-107	26	36	-107.4433	Mesaverde Formation
36.5700	-95	30	0	-95.5000	Senora Formation
36.6600	-95	28	12	-95.4700	Senora Formation
36.7400	-95	19	48	-95.3300	Senora Formation
35.6378	-95	46	19	-95.7719	Senora Formation
35.3700	-95	0	36	-95.0100	McAlester Formation
38.8500	-94	30	0	-94.5000	Hartshorne Sandstone
36.6111	-95	29	44	-95.4956	Senora Formation

ventory samples.

Latitude decimal degrees	Longitude degrees	Longitude minutes	Longitude seconds	Longitude decimal degrees	Formation
36.6292	-95	25	9	-95.4192	Senora Formation
39.9819	-87	42	55	-87.7153	Carbondale Formation
38.1486	-39	45	1	-39.7503	Carbondale Formation
38.1486	-39	45	1	-39.7503	Carbondale Formation
38.1486	-39	45	1	-39.7503	Carbondale Formation
37.9317	-89	24	33	-89.4092	Tradewater Formation
37.9358	-89	24	26	-89.4072	Tradewater Formation
37.9317	-89	24	37	-89.4103	Tradewater Formation
37.6933	-88	20	35	-88.3431	Carbondale Formation
37.6806	-88	20	28	-88.3411	Carbondale Formation
37.6778	-88	21	29	-88.3581	Carbondale Formation
37.8642	-89	15	36	-89.2600	Carbondale Formation
37.9806	-87	53	54	-87.8983	Dugger Formation
37.9806	-87	53	54	-87.8983	Dugger Formation
37.9806	-87	53	54	-87.8983	Dugger Formation
37.9806	-87	53	54	-87.8983	Petersburg Formation
37.9806	-87	53	54	-87.8983	Petersburg Formation
37.9806	-87	53	54	-87.8983	Petersburg Formation
37.9806	-87	53	54	-87.8983	Petersburg Formation
37.9806	-87	53	54	-87.8983	Staunton Formation
37.9806	-87	53	54	-87.8983	Staunton Formation
37.9806	-87	53	54	-87.8983	Staunton Formation
37.9806	-87	53	54	-87.8983	Staunton Formation
37.9806	-87	53	54	-87.8983	Brazil Formation
38.0850	-87	43	37	-87.7269	uncorrelated
38.0850	-87	43	37	-87.7269	uncorrelated
38.0850	-87	43	37	-87.7269	uncorrelated

ventory samples.

Latitude decimal degrees	Longitude degrees	Longitude minutes	Longitude seconds	Longitude decimal degrees	Formation
38.0850	-87	43	37	-87.7269	uncorrelated
38.0850	-87	43	37	-87.7269	uncorrelated
38.0850	-87	43	37	-87.7269	uncorrelated
38.0850	-87	43	37	-87.7269	uncorrelated
38.0850	-87	43	37	-87.7269	uncorrelated
38.0850	-87	43	37	-87.7269	uncorrelated
39.2956	-87	6	0	-87.1000	Brazil Formation
39.2956	-87	6	0	-87.1000	Brazil Formation
39.2956	-87	6	0	-87.1000	Brazil Formation
39.1219	-87	4	51	-87.0808	Brazil Formation
39.1219	-87	4	51	-87.0808	Brazil Formation
39.1219	-87	4	51	-87.0808	Brazil Formation
39.1219	-87	4	51	-87.0808	Brazil Formation
39.1233	-87	4	33	-87.0758	Brazil Formation
39.1233	-87	4	33	-87.0758	Brazil Formation
39.1233	-87	4	33	-87.0758	Brazil Formation
39.1233	-87	4	33	-87.0758	Brazil Formation
39.1353	-87	2	53	-87.0481	Brazil Formation
39.1233	-87	4	33	-87.0758	Brazil Formation
39.1233	-87	4	33	-87.0758	Brazil Formation
39.7011	-87	8	40	-87.1444	Brazil Formation
39.7011	-87	8	40	-87.1444	Brazil Formation
39.7011	-87	8	40	-87.1444	Brazil Formation
39.7011	-87	8	40	-87.1444	Brazil Formation
39.7011	-87	8	40	-87.1444	Brazil Formation
39.7011	-87	8	40	-87.1444	Brazil Formation
39.6972	-87	8	41	-87.1447	Brazil Formation

ventory samples.

Latitude decimal degrees	Longitude degrees	Longitude minutes	Longitude seconds	Longitude decimal degrees	Formation
39.6972	-87	8	41	-87.1447	Brazil Formation
39.6972	-87	8	41	-87.1447	Brazil Formation
39.6972	-87	8	41	-87.1447	Brazil Formation
39.6972	-87	8	41	-87.1447	Brazil Formation
39.6972	-87	8	41	-87.1447	Brazil Formation
39.0308	-87	20	57	-87.3492	Dugger Formation
39.0308	-87	20	57	-87.3492	Dugger Formation
39.0308	-87	20	57	-87.3492	Dugger Formation
39.0308	-87	20	57	-87.3492	Dugger Formation
39.0308	-87	20	57	-87.3492	Dugger Formation
39.0308	-87	20	57	-87.3492	Dugger Formation
39.0308	-87	20	57	-87.3492	Dugger Formation
39.0308	-87	20	57	-87.3492	Dugger Formation
39.1219	-87	4	51	-87.0808	Brazil Formation
39.7011	-87	8	40	-87.1444	Brazil Formation
39.6972	-87	8	41	-87.1447	Brazil Formation
39.2294	-87	21	3	-87.3508	Dugger Formation
39.2294	-87	21	3	-87.3508	Dugger Formation
39.2294	-87	21	3	-87.3508	Dugger Formation
39.2294	-87	21	3	-87.3508	Dugger Formation
39.2294	-87	21	3	-87.3508	Dugger Formation
39.2294	-87	21	3	-87.3508	Dugger Formation
39.2331	-87	20	42	-87.3450	Dugger Formation
39.2331	-87	20	42	-87.3450	Dugger Formation
39.2331	-87	20	42	-87.3450	Dugger Formation
39.2331	-87	20	42	-87.3450	Dugger Formation
39.2331	-87	20	42	-87.3450	Dugger Formation

ventory samples.

Latitude decimal degrees	Longitude degrees	Longitude minutes	Longitude seconds	Longitude decimal degrees	Formation
39.2331	-87	20	42	-87.3450	Dugger Formation
38.6469	-87	23	49	-87.3969	Dugger Formation
38.6469	-87	23	49	-87.3969	Dugger Formation
38.6469	-87	23	49	-87.3969	Dugger Formation
38.6469	-87	23	49	-87.3969	Dugger Formation
38.6469	-87	23	49	-87.3969	Dugger Formation
38.6469	-87	23	49	-87.3969	Dugger Formation
38.6469	-87	23	49	-87.3969	Dugger Formation
38.6469	-87	23	49	-87.3969	Dugger Formation
38.6469	-87	23	49	-87.3969	Dugger Formation
38.6469	-87	23	49	-87.3969	Dugger Formation
38.1761	-86	57	47	-86.9631	Mansfield Formation
38.1761	-86	57	47	-86.9631	Mansfield Formation
38.1761	-86	57	47	-86.9631	Mansfield Formation
38.1761	-86	57	47	-86.9631	Mansfield Formation
38.1761	-86	57	47	-86.9631	Mansfield Formation
38.1761	-86	57	47	-86.9631	Mansfield Formation
38.1739	-86	57	47	-86.9631	Brazil Formation
38.1739	-86	57	47	-86.9631	Brazil Formation
38.1739	-86	57	47	-86.9631	Brazil Formation
38.1739	-86	57	47	-86.9631	Brazil Formation
38.1739	-86	57	47	-86.9631	Brazil Formation
38.1739	-86	57	47	-86.9631	Brazil Formation
38.1739	-86	57	47	-86.9631	Brazil Formation
38.1739	-86	57	47	-86.9631	Brazil Formation
38.1739	-86	57	47	-86.9631	Brazil Formation
39.2294	-87	21	3	-87.3508	Dugger Formation

ventory samples.

Latitude decimal degrees	Longitude degrees	Longitude minutes	Longitude seconds	Longitude decimal degrees	Formation
39.2331	-87	20	42	-87.3450	Dugger Formation
39.0800	-87	5	20	-87.0889	Brazil Formation
39.0800	-87	5	20	-87.0889	Brazil Formation
39.0800	-87	5	20	-87.0889	Brazil Formation
39.0800	-87	5	20	-87.0889	Brazil Formation
39.0800	-87	5	20	-87.0889	Brazil Formation
39.0800	-87	5	20	-87.0889	Brazil Formation
39.0789	-87	5	20	-87.0889	Mansfield Formation
39.0789	-87	5	20	-87.0889	Mansfield Formation
39.0789	-87	5	20	-87.0889	Mansfield Formation
39.0789	-87	5	20	-87.0889	Mansfield Formation
39.0789	-87	5	20	-87.0889	Mansfield Formation
39.0789	-87	5	20	-87.0889	Mansfield Formation
39.0789	-87	5	20	-87.0889	Mansfield Formation
39.0789	-87	5	20	-87.0889	Mansfield Formation
38.0969	-87	17	46	-87.2961	Petersburg Formation
38.0969	-87	17	46	-87.2961	Petersburg Formation
38.0969	-87	17	46	-87.2961	Petersburg Formation
38.0969	-87	17	46	-87.2961	Petersburg Formation

ventory samples.

Latitude decimal degrees	Longitude degrees	Longitude minutes	Longitude seconds	Longitude decimal degrees	Formation
38.0969	-87	17	46	-87.2961	Petersburg Formation
38.0969	-87	17	46	-87.2961	Petersburg Formation
38.0969	-87	17	46	-87.2961	Petersburg Formation
38.0969	-87	17	46	-87.2961	Petersburg Formation
38.0969	-87	17	46	-87.2961	Petersburg Formation
38.0969	-87	17	46	-87.2961	Petersburg Formation
39.0800	-87	5	20	-87.0889	Brazil Formation
38.0969	-87	17	46	-87.2961	Petersburg Formation
39.3381	-87	11	38	-87.1939	Brazil Formation
39.3381	-87	11	38	-87.1939	Brazil Formation
39.3381	-87	11	38	-87.1939	Brazil Formation
39.3381	-87	11	38	-87.1939	Brazil Formation
39.3381	-87	11	38	-87.1939	Brazil Formation

ventory samples.

Latitude decimal degrees	Longitude degrees	Longitude minutes	Longitude seconds	Longitude decimal degrees	Formation
39.3381	-87	11	38	-87.1939	Brazil Formation
39.3381	-87	11	38	-87.1939	Brazil Formation
39.3381	-87	11	38	-87.1939	Brazil Formation
39.3381	-87	11	38	-87.1939	Mansfield Formation
39.3381	-87	11	38	-87.1939	Mansfield Formation
39.3381	-87	11	38	-87.1939	Mansfield Formation
39.3381	-87	11	38	-87.1939	Mansfield Formation
39.3381	-87	11	38	-87.1939	Mansfield Formation
39.3381	-87	11	38	-87.1939	Mansfield Formation
39.3381	-87	11	38	-87.1939	Brazil Formation
38.2792	-87	20	24	-87.3400	Dugger Formation
38.2792	-87	20	24	-87.3400	Dugger Formation
38.2792	-87	20	24	-87.3400	Dugger Formation
38.2792	-87	20	24	-87.3400	Dugger Formation
38.2792	-87	20	24	-87.3400	Dugger Formation
38.2792	-87	20	24	-87.3400	Dugger Formation
38.2792	-87	20	24	-87.3400	Dugger Formation
38.2792	-87	20	24	-87.3400	Dugger Formation
38.2653	-87	20	23	-87.3397	Petersburg Formation
38.2653	-87	20	23	-87.3397	Petersburg Formation
38.2653	-87	20	23	-87.3397	Petersburg Formation
38.2653	-87	20	23	-87.3397	Petersburg Formation
38.2653	-87	20	23	-87.3397	Petersburg Formation
38.2653	-87	20	23	-87.3397	Petersburg Formation
38.2653	-87	20	23	-87.3397	Petersburg Formation
38.2653	-87	20	23	-87.3397	Petersburg Formation
38.2792	-87	20	24	-87.3400	Dugger Formation

ventory samples.

Latitude decimal degrees	Longitude degrees	Longitude minutes	Longitude seconds	Longitude decimal degrees	Formation
38.2653	-87	20	23	-87.3397	Petersburg Formation
38.3138	-87	50	4	-87.5733	Petersburg Formation
38.3138	-87	50	4	-87.5733	Petersburg Formation
38.3138	-87	50	4	-87.5733	Petersburg Formation
38.3138	-87	50	4	-87.5733	Petersburg Formation
38.3138	-87	50	4	-87.5733	Petersburg Formation
38.3138	-87	50	4	-87.5733	Petersburg Formation
38.3138	-87	50	4	-87.5733	Petersburg Formation
38.3138	-87	50	4	-87.5733	Petersburg Formation
38.5911	-87	25	5	-87.5733	Dugger Formation
38.5911	-87	25	5	-87.5733	Dugger Formation
38.5911	-87	25	5	-87.5733	Dugger Formation
38.5911	-87	25	5	-87.5733	Dugger Formation
38.6281	-87	1	31	-87.5733	Brazil Formation
38.6281	-87	1	31	-87.5733	Brazil Formation
38.6281	-87	1	31	-87.5733	Brazil Formation
38.6281	-87	1	31	-87.5733	Brazil Formation
38.6278	-87	1	22	-87.5733	Brazil Formation
38.6278	-87	1	22	-87.5733	Brazil Formation
38.6278	-87	1	22	-87.5733	Brazil Formation
38.6278	-87	1	22	-87.5733	Brazil Formation
38.6230	-87	0	22	-87.5733	Brazil Formation
38.6230	-87	0	22	-87.5733	Brazil Formation
38.6230	-87	0	22	-87.5733	Brazil Formation
38.6230	-87	0	22	-87.5733	Brazil Formation
38.3360	-87	25	58	-87.5733	Petersburg Formation
38.3360	-87	25	58	-87.5733	Petersburg Formation

ventory samples.

Latitude ecimal degree	Longitude degrees	Longitude minutes	Longitude seconds	Longitude decimal degrees	Formation
38.3360	-87	25	58	-87.5733	Petersburg Formation
38.3360	-87	25	58	-87.5733	Petersburg Formation
38.3360	-87	25	58	-87.5733	Petersburg Formation
38.3360	-87	25	58	-87.5733	Petersburg Formation
38.3360	-87	25	58	-87.5733	Petersburg Formation
38.3360	-87	25	58	-87.5733	Petersburg Formation
38.2981	-87	25	9	-87.5733	Staunton Formation
38.2981	-87	25	9	-87.5733	Staunton Formation
38.2981	-87	25	9	-87.5733	Staunton Formation
38.2981	-87	25	9	-87.5733	Staunton Formation
38.2981	-87	25	9	-87.5733	Staunton Formation
38.2981	-87	25	9	-87.5733	Staunton Formation
38.2981	-87	25	9	-87.5733	Staunton Formation
38.2981	-87	25	9	-87.5733	Staunton Formation
38.2981	-87	25	9	-87.5733	Staunton Formation
38.2981	-87	25	9	-87.5733	Staunton Formation
38.2981	-87	25	9	-87.5733	Staunton Formation
38.2981	-87	25	9	-87.5733	Staunton Formation
38.2981	-87	25	9	-87.5733	Staunton Formation
38.2981	-87	25	9	-87.5733	Staunton Formation
38.2981	-87	25	9	-87.5733	Staunton Formation
38.2981	-87	25	9	-87.5733	Staunton Formation
38.3508	-87	27	20	-87.5733	Dugger Formation
38.3508	-87	27	20	-87.5733	Dugger Formation
38.3508	-87	27	20	-87.5733	Dugger Formation
38.3508	-87	27	20	-87.5733	Dugger Formation
38.3508	-87	27	20	-87.5733	Dugger Formation

ventory samples.

Latitude decimal degrees	Longitude degrees	Longitude minutes	Longitude seconds	Longitude decimal degrees	Formation
38.3508	-87	27	20	-87.5733	Dugger Formation
38.4094	-87	27	17	-87.5733	Dugger Formation
38.4094	-87	27	17	-87.5733	Dugger Formation
38.4094	-87	27	17	-87.5733	Dugger Formation
38.4094	-87	27	17	-87.5733	Dugger Formation
38.4094	-87	27	17	-87.5733	Dugger Formation
38.4094	-87	27	17	-87.5733	Dugger Formation
38.4094	-87	27	17	-87.5733	Dugger Formation
38.4094	-87	27	17	-87.5733	Dugger Formation
38.3444	-87	27	29	-87.5733	Shelburn
38.3444	-87	27	29	-87.5733	Shelburn
37.4078	-86	57	21	-86.9558	Unknown
37.5706	-87	45	1	-87.7503	Carbondale Formation
37.5706	-87	45	1	-87.7503	Shelburn Formation
37.5706	-87	45	1	-87.7503	Carbondale Formation
37.5706	-87	45	1	-87.7503	Carbondale Formation
37.5706	-87	45	1	-87.7503	Carbondale Formation
37.5706	-87	45	1	-87.7503	Carbondale Formation
37.5697	-87	46	30	-87.7750	Carbondale Formation
37.5697	-87	46	30	-87.7750	Shelburn Formation
37.5697	-87	46	30	-87.7750	Shelburn Formation
37.5697	-87	46	30	-87.7750	Shelburn Formation
37.5697	-87	46	30	-87.7750	Carbondale Formation
37.5697	-87	46	30	-87.7750	Carbondale Formation
37.5697	-87	46	30	-87.7750	Carbondale Formation
37.5697	-87	46	30	-87.7750	Carbondale Formation
37.3978	-87	34	24	-87.5733	Carbondale Formation

ventory samples.

Latitude decimal degrees	Longitude degrees	Longitude minutes	Longitude seconds	Longitude decimal degrees	Formation
37.3978	-87	34	24	-87.5733	Carbondale Formation
37.3978	-87	34	24	-87.5733	Carbondale Formation
37.3978	-87	34	24	-87.5733	Carbondale Formation
37.3978	-87	34	24	-87.5733	Carbondale Formation
37.3978	-87	34	24	-87.5733	Carbondale Formation
37.3978	-87	34	24	-87.5733	Carbondale Formation
37.3978	-87	34	24	-87.5733	Carbondale Formation
37.3978	-87	34	24	-87.5733	Carbondale Formation
37.3978	-87	34	24	-87.5733	Carbondale Formation
37.3978	-87	34	24	-87.5733	Shelburn Formation
37.3978	-87	34	24	-87.5733	Shelburn Formation
37.3978	-87	34	24	-87.5733	Shelburn Formation
37.3978	-87	34	24	-87.5733	Shelburn Formation
36.7314	-83	55	24	-83.9233	Breathitt Formation
36.7314	-83	55	24	-83.9233	Breathitt Formation
36.7314	-83	55	24	-83.9233	Breathitt Formation

ventory samples.

Latitude decimal degrees	Longitude degrees	Longitude minutes	Longitude seconds	Longitude decimal degrees	Formation
36.7314	-83	55	24	-83.9233	Breathitt Formation
36.7314	-83	55	24	-83.9233	Breathitt Formation
36.7314	-83	55	24	-83.9233	Breathitt Formation
36.7314	-83	55	24	-83.9233	Breathitt Formation
36.7314	-83	55	24	-83.9233	Breathitt Formation
41.4306	-78	31	5	-78.5181	Allegheny Formation
41.4306	-78	31	5	-78.5181	Allegheny Formation
41.4300	-78	31	5	-78.5181	Allegheny Formation

ventory samples.

Latitude decimal degrees	Longitude degrees	Longitude minutes	Longitude seconds	Longitude decimal degrees	Formation
40.1217	-79	1	51	-79.0308	Allegheny Formation
40.1217	-79	1	51	-79.0308	Allegheny Formation
40.1217	-79	1	51	-79.0308	Allegheny Formation
40.1217	-79	1	51	-79.0308	Allegheny Formation
40.1217	-79	1	51	-79.0308	Allegheny Formation
39.8933	-78	59	0	-78.9833	Monongahela Group
39.8922	-78	59	4	-78.9844	Monongahela Group
39.8847	-79	0	5	-79.0014	Allegheny Formation
39.9544	-79	0	52	-79.0144	Allegheny Formation
39.8933	-78	59	0	-78.9833	Monongahela Group
39.8922	-78	59	4	-78.9844	Monongahela Group
39.8847	-79	0	5	-79.0014	Allegheny Formation
39.9544	-79	0	52	-79.0144	Allegheny Formation
40.0833	-79	5	48	-79.0967	Allegheny Formation
40.1217	-79	1	51	-79.0308	Allegheny Formation
40.0742	-78	48	20	-78.8056	Allegheny Formation
40.0742	-78	48	20	-78.8056	Allegheny Formation
39.8847	-79	0	5	-79.0014	Monongahela Group
39.8942	-78	59	1	-78.9836	Monongahela Group
40.0742	-78	48	20	-78.8056	Allegheny Formation
41.2765	-78	43	20	-78.7221	Allegheny Formation
41.2765	-78	43	20	-78.7221	Allegheny Formation
41.2765	-78	43	20	-78.7221	Allegheny Formation
41.2765	-78	43	20	-78.7221	Allegheny Formation
41.2726	-78	42	53	-78.7146	Allegheny Formation
40.1292	-80	10	43	-80.1786	Monongahela Group
40.1274	-80	9	2	-80.1505	Monongahela Group

ventory samples.

Latitude decimal degrees	Longitude degrees	Longitude minutes	Longitude seconds	Longitude decimal degrees	Formation
40.1274	-80	9	2	-80.1505	Monongahela Group
40.1274	-80	9	2	-80.1505	Monongahela Group
40.1274	-80	9	2	-80.1505	Monongahela Group
36.1417	-84	23	23	-84.3897	Breathitt Formation
36.5692	-83	52	56	-83.8822	Breathitt Formation
36.4044	-84	55	13	-84.9203	Lee Formation
36.2292	-84	27	30	-84.4583	Breathitt Formation
35.9242	-84	48	30	-84.8083	Lee Formation
35.9822	-84	40	56	-84.6822	Lee Formation
36.1944	-84	28	0	-84.4667	Breathitt Formation
36.5739	-83	53	5	-83.8847	Breathitt Formation
36.5381	-83	52	58	-83.8828	Breathitt Formation
36.5381	-83	52	58	-83.8828	Breathitt Formation
39.4708	-80	12	59	-80.2164	Monongahela Group
38.0314	-81	29	23	-81.4897	Allegheny Formation
38.0300	-81	29	24	-81.4900	Allegheny Formation
37.9978	-81	27	23	-81.4564	Allegheny Formation
38.0044	-81	27	16	-81.4544	Allegheny Formation
38.2767	-81	17	58	-81.2994	Kanawha Formation
38.2533	-81	19	13	-81.3203	Kanawha Formation
38.2850	-81	17	45	-81.2958	Kanawha Formation
38.3175	-80	59	32	-80.9922	Kanawha Formation
38.5014	-80	37	47	-80.6297	Kanawha Formation
38.4878	-80	38	6	-80.6350	Kanawha Formation
37.8150	-82	19	16	-82.3211	Kanawha Formation
38.3078	-80	59	16	-80.9878	Kanawha Formation
38.3078	-80	59	16	-80.9878	Kanawha Formation

ventory samples.

Latitude decimal degrees	Longitude degrees	Longitude minutes	Longitude seconds	Longitude decimal degrees	Formation
38.0400	-81	29	14	-81.4872	Kanawha Formation
38.2131	-81	49	49	-81.8303	Kanawha Formation
38.0003	-81	27	31	-81.4586	Kanawha Formation
38.0003	-81	27	31	-81.4586	Kanawha Formation
38.0003	-81	27	31	-81.4586	Kanawha Formation
38.2094	-81	28	8	-81.4689	Kanawha Formation
38.0503	-82	14	7	-82.2353	Allegheny Formation
38.0503	-82	14	7	-82.2353	Allegheny Formation
38.5286	-80	36	16	-80.6044	Kanawha Formation
38.5219	-80	37	14	-80.6206	Kanawha Formation
38.3078	-80	59	16	-80.9878	Kanawha Formation
38.3000	-81	0	44	-81.0122	Kanawha Formation
38.0403	-81	29	20	-81.4889	Kanawha Formation
37.0250	-81	29	36	-81.4933	Kanawha Formation
37.8286	-82	18	45	-82.3125	Kanawha Formation
37.8714	-82	12	15	-82.2042	Allegheny Formation
37.8700	-82	12	22	-82.2061	Allegheny Formation
39.1931	-80	22	45	-80.3792	Monongahela Group
39.2947	-79	19	4	-79.3178	Conemaugh Formation
39.3686	-79	48	28	-79.8078	Allegheny Formation
38.1614	-81	16	52	-81.2811	Allegheny Formation
37.8475	-82	19	26	-82.3239	Allegheny Formation
38.2131	-81	49	49	-81.8303	Kanawha Formation
37.9464	-81	30	7	-81.5019	Kanawha Formation
38.2067	-81	28	7	-81.4686	Kanawha Formation
38.0417	-81	23	14	-81.3872	Kanawha Formation
38.4297	-80	36	5	-80.6014	Kanawha Formation

ventory samples.

Latitude decimal degrees	Longitude degrees	Longitude minutes	Longitude seconds	Longitude decimal degrees	Formation
38.4306	-80	36	35	-80.6097	Kanawha Formation
39.6589	-80	2	38	-80.0439	Monongahela Group
39.6589	-80	2	38	-80.0439	Monongahela Group
39.6686	-80	1	5	-80.0181	Monongahela Group
39.7042	-80	1	40	-80.0278	Monongahela Group
39.7089	-80	0	35	-80.0097	Monongahela Group
39.1056	-80	16	6	-80.2683	Monongahela Group
39.3200	-79	16	36	-79.2767	Conemaugh Formation
39.3200	-79	16	36	-79.2767	Conemaugh Formation
39.3153	-79	16	47	-79.2797	Allegheny Formation
39.3781	-79	49	3	-79.8175	Allegheny Formation
39.3475	-79	49	37	-79.8269	Allegheny Formation
38.2067	-81	28	7	-81.4686	Kanawha Formation
38.1050	-81	31	53	-81.5314	Kanawha Formation
37.8981	-81	37	24	-81.6233	Allegheny Formation
37.8950	-81	41	25	-81.6903	Allegheny Formation
37.8950	-81	41	21	-81.6892	Allegheny Formation
37.8997	-81	41	28	-81.6911	Kanawha Formation
37.8997	-81	41	28	-81.6911	Kanawha Formation
37.8997	-81	41	28	-81.6911	Kanawha Formation
37.8997	-81	41	28	-81.6911	Kanawha Formation
38.1158	-81	34	30	-81.5750	Kanawha Formation
38.0981	-81	32	42	-81.5450	Kanawha Formation
38.0981	-81	32	42	-81.5450	Kanawha Formation
38.1050	-81	31	53	-81.5314	Kanawha Formation
38.3464	-80	45	29	-80.7581	Kanawha Formation
38.3464	-80	45	29	-80.7581	Kanawha Formation

ventory samples.

Latitude decimal degrees	Longitude degrees	Longitude minutes	Longitude seconds	Longitude decimal degrees	Formation
38.3464	-80	45	29	-80.7581	Kanawha Formation
38.3589	-80	44	41	-80.7447	Kanawha Formation
38.3589	-80	44	41	-80.7447	Kanawha Formation
38.3589	-80	44	41	-80.7447	Kanawha Formation
38.3589	-80	44	41	-80.7447	Kanawha Formation
38.0403	-81	29	20	-81.4889	Kanawha Formation
38.0258	-81	33	30	-81.5583	Allegheny Formation
38.1158	-81	34	30	-81.5750	Kanawha Formation
38.0642	-81	57	31	-81.9586	Kanawha Formation
38.0772	-81	58	29	-81.9747	Kanawha Formation
38.0733	-81	58	55	-81.9819	Allegheny Formation
38.0669	-81	59	18	-81.9883	Allegheny Formation
38.0611	-81	57	38	-81.9606	Kanawha Formation
38.0614	-81	57	38	-81.9606	Kanawha Formation
38.0581	-81	57	56	-81.9656	Allegheny Formation
38.0581	-81	57	56	-81.9656	Kanawha Formation
38.0792	-81	57	35	-81.9597	Kanawha Formation
38.0989	-81	58	37	-81.9769	Kanawha Formation
37.8011	-81	48	58	-81.8161	Kanawha Formation
37.8011	-81	48	58	-81.8161	Kanawha Formation
37.8011	-81	48	58	-81.8161	Kanawha Formation
37.7825	-81	51	16	-81.8544	Kanawha Formation
37.7825	-81	51	16	-81.8544	Kanawha Formation
37.8167	-81	51	32	-81.8589	Kanawha Formation
37.8167	-81	51	32	-81.8589	Kanawha Formation
37.8164	-81	51	45	-81.8625	Kanawha Formation
37.8161	-81	51	54	-81.8650	Allegheny Formation

ventory samples.

Latitude decimal degrees	Longitude degrees	Longitude minutes	Longitude seconds	Longitude decimal degrees	Formation
37.8167	-81	51	37	-81.8603	Kanawha Formation
37.8147	-81	51	57	-81.8658	Allegheny Formation
37.8186	-81	51	32	-81.8589	Kanawha Formation
37.8225	-81	52	20	-81.8722	Kanawha Formation
37.8225	-81	52	20	-81.8722	Kanawha Formation
37.8225	-81	52	20	-81.8722	Kanawha Formation
37.8225	-81	52	20	-81.8722	Kanawha Formation
38.6192	-80	45	17	-80.7547	Kanawha Formation
38.6192	-80	45	17	-80.7547	Kanawha Formation
38.6092	-80	45	17	-80.7547	Kanawha Formation
38.9217	-80	13	19	-80.2219	Allegheny Formation
37.7825	-81	51	16	-81.8544	Kanawha Formation
37.8164	-81	51	45	-81.8625	Kanawha Formation
37.8381	-81	58	12	-81.9700	Kanawha Formation
37.8381	-81	58	12	-81.9700	Kanawha Formation
37.8381	-81	58	12	-81.9700	Kanawha Formation
37.8094	-81	50	9	-81.8358	Kanawha Formation
37.8069	-81	50	8	-81.8356	Kanawha Formation
37.6667	-81	20	0	-81.3333	New River Formation
38.0772	-81	58	29	-81.9747	Kanawha Formation
38.9078	-80	12	7	-80.2019	New River Formation
38.9078	-80	12	7	-80.2019	Kanawha Formation
38.9078	-80	12	7	-80.2019	Allegheny Formation
38.0581	-81	57	56	-81.9656	Kanawha Formation
38.1992	-81	45	55	-81.7653	Kanawha Formation
38.6667	-81	20	0	-81.3333	New River Formation
37.8400	-81	58	27	-81.9742	Kanawha Formation

ventory samples.

Latitude decimal degrees	Longitude degrees	Longitude minutes	Longitude seconds	Longitude decimal degrees	Formation
38.8208	-80	25	25	-80.4236	Kanawha Formation
38.8208	-80	25	25	-80.4236	Allegheny Formation
38.8208	-80	25	25	-80.4236	Allegheny Formation
38.8208	-80	25	25	-80.4236	Allegheny Formation
39.7036	-79	59	7	-79.9853	Monongahela Group
38.3114	-80	50	55	-80.8486	Allegheny Formation
39.6439	-80	2	38	-80.0439	Monongahela Group
39.6439	-80	2	38	-80.0439	Monongahela Group
39.6439	-80	2	38	-80.0439	Monongahela Group
39.2683	-80	28	31	-80.4753	Monongahela Group
38.6822	-80	33	56	-80.5656	Allegheny Formation
38.6822	-80	33	56	-80.5656	Allegheny Formation
37.8628	-81	42	20	-81.7056	Kanawha Formation
37.8628	-81	42	20	-81.7056	Kanawha Formation
37.8628	-81	42	20	-81.7056	Kanawha Formation
37.8628	-81	42	20	-81.7056	Kanawha Formation
37.6667	-81	20	0	-81.3333	New River Formation
37.6667	-82	10	0	-82.1667	Kanawha Formation
38.2517	-81	36	22	-81.6061	Kanawha Formation
39.4681	-80	7	51	-80.1308	Monogahela Group
38.6822	-80	33	56	-80.5656	Kanawha Formation
38.6822	-80	33	56	-80.5656	Allegheny Formation
38.6822	-80	33	56	-80.5656	Allegheny Formation
38.6822	-80	33	56	-80.5656	Allegheny Formation
38.6822	-80	33	56	-80.5656	New River Formation
38.6822	-80	33	56	-80.5656	New River Formation
38.6822	-80	33	56	-80.5656	New River Formation

ventory samples.

Latitude decimal degrees	Longitude degrees	Longitude minutes	Longitude seconds	Longitude decimal degrees	Formation
38.6822	-80	33	56	-80.5656	Allegheny Formation
38.6822	-80	33	56	-80.5656	Allegheny Formation
38.6822	-80	33	56	-80.5656	Allegheny Formation
38.6822	-80	33	56	-80.5656	Conemaugh Formation
39.6439	-80	2	38	-80.0459	Kanawha Formation
39.6439	-80	2	38	-80.0459	Kanawha Formation
39.6439	-80	2	38	-80.0459	Kanawha Formation
39.6439	-80	2	38	-80.0459	Kanawha Formation
39.9081	-80	31	57	-80.5325	Monogahela Group
39.9081	-80	31	57	-80.5325	Monogahela Group
39.8133	-80	35	26	-80.5906	Monogahela Group
39.7317	-80	34	39	-80.5275	Monogahela Group
39.6250	-80	0	0	-80.0000	Monogahela Group
39.3222	-80	13	57	-80.2325	Monogahela Group
39.4681	-80	7	51	-80.1308	Monogahela Group
39.2699	-79	10	12	-79.1700	Allegheny Formation
39.2699	-79	10	12	-79.1700	Allegheny Formation
39.2699	-79	10	12	-79.1700	Allegheny Formation
37.6631	-81	58	0	-81.9667	Kanawha Formation
37.6631	-81	58	0	-81.9667	Kanawha Formation
37.6631	-81	58	0	-81.9667	Kanawha Formation
37.6631	-81	58	0	-81.9667	Kanawha Formation
37.6631	-81	58	0	-81.9667	Kanawha Formation
37.6631	-81	58	0	-81.9667	Kanawha Formation
37.8089	-81	58	0	-81.9667	Kanawha Formation
37.8089	-81	53	42	-81.8950	Kanawha Formation
37.8089	-81	53	42	-81.8950	Kanawha Formation

ventory samples.

Latitude decimal degrees	Longitude degrees	Longitude minutes	Longitude seconds	Longitude decimal degrees	Formation
37.8089	-81	53	42	-81.8950	Kanawha Formation
38.0256	-82	14	57	-82.2492	Allegheny Formation
38.0514	-82	17	29	-82.2914	Kanawha Formation
38.0514	-82	17	29	-82.2914	Kanawha Formation
38.0514	-82	17	29	-82.2914	Kanawha Formation
38.0503	-82	14	7	-82.2353	Allegheny Formation
38.0503	-82	14	7	-82.2353	Allegheny Formation
39.8208	-80	25	25	-80.4236	Allegheny Formation
38.6822	-80	33	56	-80.5656	Kanawha Formation
38.6822	-80	33	56	-80.5656	Kanawha Formation
37.8089	-81	53	42	-81.8950	Kanawha Formation

Coal	Description
	core sample, Hole: 459299
	core sample, Hole: 459299
	core sample, Hole: 459299
	core sample, Hole: 459299
	core sample, Hole: 459299
	core sample, Hole: 459299
	core sample, Hole: 459299
	core sample, Hole: 459299
	core sample, Hole: 459299
	Silo 2 1/2 split coal sample
	Silo 2 1/2 split coal sample
	Silo 4 1/2 split Highwall sample
	Silo 4 1/2 split Highwall sample
Wyodak coal zone	run-of-mine coal sample
Wyodak coal zone	run-of-mine coal sample
Wyodak coal zone	run-of-mine coal sample
Wyodak coal zone	run-of-mine coal sample
Wyodak coal zone	run-of-mine coal sample
Wyodak coal zone	run-of-mine coal sample
Wyodak coal zone	run-of-mine coal sample
Wyodak coal zone	run-of-mine coal sample
Wyodak coal zone	reject coal sample
Wyodak coal zone	reject coal sample
Wyodak coal zone	reject coal sample
Wyodak coal zone	reject coal sample

Coal	Description
Anderson coal	run-of-mine coal sample
Anderson coal	run-of-mine coal sample
Anderson coal	run-of-mine coal sample
Anderson coal	run-of-mine coal sample
Canyon coal	run-of-mine coal sample
Canyon coal	run-of-mine coal sample
Canyon coal	run-of-mine coal sample
Canyon coal	run-of-mine coal sample
Wyodak coal zone	run-of-mine coal sample
Wyodak coal zone	run-of-mine coal sample
Wyodak coal zone	run-of-mine coal sample
Wyodak coal zone	run-of-mine coal sample
Wyodak coal zone	run-of-mine coal sample
Wyodak coal zone	run-of-mine coal sample
Wyodak coal zone	run-of-mine coal sample
Wyodak coal zone	run-of-mine coal sample
Wyodak coal zone	reject coal sample
Anderson coal	run-of-mine coal sample
Wyodak coal zone	7-11A, run-of-mine, R02S0711, 7/11/02
Wyodak coal zone	7-11B, run-of-mine, R02S0711, 7/11/02
Wyodak coal zone	7-12A, run-of-mine, R02S0712, 7/12/02
Wyodak coal zone	7-12B, run-of-mine, R02S0712, 7/12/02
Wyodak coal zone	7-12C, run-of-mine, R02S0712, 7/12/02
Wyodak coal zone	7-13A, run-of-mine, R02S0713, 7/12/02
Wyodak coal zone	7-13B, run-of-mine, R02S0713, 7/12/02
Wyodak coal zone	7-13C, run-of-mine, R02S0713, 7/12/02
Wyodak coal zone	7-14A, run-of-mine, R02S0714, 7/12/02

Coal	Description
Wyodak coal zone	7-14B, run-of-mine, R02S0714, 7/12/02
Wyodak coal zone	7-14C, run-of-mine, R02S0714, 7/12/02
Wyodak coal zone	7-15A, run-of-mine, R02S0715, 7/12/02
Wyodak coal zone	7-15B, run-of-mine, R02S0715, 7/12/02
Wyodak coal zone	7-15C, run-of-mine, R02S0715, 7/12/02
Wyodak coal zone	7-15D, run-of-mine, R02S0715, 7/12/02
Wyodak coal zone	7-16A, run-of-mine, R02S0716, 7/13/02
Wyodak coal zone	7-17A, run-of-mine, R02S0717, 7/13/02
Wyodak coal zone	7-17B, run-of-mine, R02S0717, 7/13/02
Wyodak coal zone	7-17C, run-of-mine, R02S0717, 7/13/02
Wyodak coal zone	605A, run-of-mine, R02S0605A, 6/10/02, 60 day
Wyodak coal zone	609B, run-of-mine, R02S0609, 6/11/02, 60 day
Wyodak coal zone	613B, run-of-mine, R02S0613B, 6/12/02, 60 day
Wyodak coal zone	614A, run-of-mine, R02S0614A, 6/12/02, 60 day
Wyodak coal zone	615, run-of-mine, R02S0615, 6/12/02, 60 day
Wyodak coal zone	616, run-of-mine, R02S0616, 6/13/02, 60 day
Wyodak coal zone	618, run-of-mine, R02S0618, 6/13/02, 60 day
Wyodak coal zone	619, run-of-mine, R02S0619, 6/13/02, 60 day
Wyodak coal zone	633, run-of-mine, CO21A0633, 7/10/02
Wyodak coal zone	633B, run-of-mine, CO21A0633, 7/10/02
Wyodak coal zone	633C, run-of-mine, CO21A0633, 7/10/02
Wyodak coal zone	7-15CD, run-of-mine, R02S0715, 7/12/02
Wyodak coal zone	609BDupe, run-of-mine, R02S0609, 6/11/02, 60 day
Wyodak coal zone	634, run-of-mine, CO22A0634, 7/10/02
Wyodak coal zone	634B, run-of-mine, CO22A0634, 7/10/02
Wyodak coal zone	634C, run-of-mine, CO22A0634, 7/10/02
Wyodak coal zone	634D, run-of-mine, CO22A0634, 7/10/02

Coal	Description
Wyodak coal zone	636, run-of-mine, CO22A0636, 7/11/02
Wyodak coal zone	637, run-of-mine, CO22A0637, 7/11/02
Wyodak coal zone	638, run-of-mine, CO22A0638, 7/11/02
Wyodak coal zone	638B, run-of-mine, CO22A0638, 7/11/02
Wyodak coal zone	638C, run-of-mine, C022A0638, 7/11/02
Wyodak coal zone	545, run-of-mine, CO21A0545, 6/10/02, 60 day
Wyodak coal zone	546, run-of-mine, CO22A0546, 6/11/02, 60 day
Wyodak coal zone	550, run-of-mine, CO22A0550, 6/12/02, 60 day
Wyodak coal zone	551, run-of-mine, CO21A0551, 6/12/02, 60 day
Wyodak coal zone	552, run-of-mine, CO22A0552, 6/12/02, 60 day
Anderson coal	NWMAS A-Anderson coal, run-of-mine
Anderson coal	NWMAS B-Anderson coal, run-of-mine
Anderson coal	NWMAS C-Anderson coal, run-of-mine
Anderson coal	NWMAS D-Anderson coal, run-of-mine
Anderson coal	NWMAS E-Anderson coal, run-of-mine
Anderson coal	NWMAS F-Anderson coal, run-of-mine
Canyon coal	G-HC- Canyon coal, run-of-mine
Canyon coal	H-HC- Canyon coal, run-of-mine
Canyon coal	I-HC- Canyon coal, run-of-mine
Canyon coal	J-HC- Canyon coal, run-of-mine
Canyon coal	K-HC- Canyon coal, run-of-mine
Canyon coal	L-HC- Canyon coal, run-of-mine
Wyodak coal zone	81402 C3 upper, run-of-mine, 10 Kg
Wyodak coal zone	81402 upper 44, run-of-mine, 20Kg.
Wyodak coal zone	81402 C1-2, run-of-mine, 20 Kg.
Wyodak coal zone	81402 middle, run-of-mine, 10Kg
Wyodak coal zone	546 duplicate, run-of-mine, CO22A0546, 6/11/02, 60 day

Coal	Description
Wyodak coal zone	637 duplicate, run-of-mine, CO22A0637, 7/11/02
	channel sample; Deadman D3-1 surface mine ramp 53-55
	channel sample; Deadman D3-1 surface mine ramp 53-55
	channel sample; Deadman D4 surface mine ramp 60-61
	channel sample; Deadman D4-1 highwall miner ramp 16-17
	channel sample; Deadman D4-1 surface mine ramp 12-14
	Mine Id 155, run-of-mine
	Mine Id 155, run-of-mine
	Mine Id 155, run-of-mine
	Mine Id 155, run-of-mine
	Mine Id 365, run-of-mine
	Mine Id 365, run-of-mine
	Southfield Mine, Canon City Field, preparation plant product
	Southfield Mine, Canon City Field, channel sample, parting excluded
	Southfield Mine, Canon City Field, raw coal to preparation plant
	Southfield Mine, Canon City Field, sales product sampled from truck
	New Horizon Mine, Nucla-Naturita Field, channel
	New Horizon Mine, Nucla-Naturita Field, channel, basal coal + partings
	New Horizon Mine, Nucla-Naturita Field, upper 2', channel w/tonsteins
	New Horizon Mine, Nucla-Naturita Field, basal 5', channel/no partings
	King Coal Mine, San Juan River Region, run-of-mine
	King Coal Mine, San Juan River Region, train coal
	King Coal Mine, San Juan River Region, channel sample, A seam
	Twenty Mile Mine, Middle Coal Group, Yampa Field, run-of-mine

Coal	Description
	Twenty Mile Mine, Middle Coal Group, Yampa Field, shipped product
Wadge coal	Seneca II-W Mine, Middle Coal Group, Yampa Field, Wadge bed, run-of-mine
	Seneca II-W Mine, Middle Coal Group, Yampa Field, Auger sample
	Yoast Mine, Middle coal Group, Yampa field, upper "A" coal, upper pit, run-of-mine
nber	Sanborn Creek, Somerset Field, stock pile
	Trapper Mine, Upper Coal Group, Yampa Field, East Ashmore pit, H seam, channel
	Trapper Mine, Upper Coal Group, Yampa Field, H pit, M seam, channel
	Deserado Mine, lower White River Field, B seam, run-of-mine
	Deserado Mine, lower White River Field, sale coal, train loadout, washed
	McClane Canyon Mine, Book Cliffs Field, run-of-mine
nber	Bowie #2 Mine, D bed, Somerset Field, channel sample
nber	Bowie #2 Mine, D bed, Somerset Field, sales
	Trapper Mine, Upper Coal Group, Yampa Field, Derringer pit, Upper Q seam, channel
	Trapper Mine, Upper Coal Group, Yampa Field, Derringer pit, main Q seam, channel
	Trapper Mine, Upper Coal Group, Yampa Field, run-of-mine, 3/1/01
	Colowyo Mine, West pit, "C" bed, channel sample. 12/14/00, 3 bags
	Colowyo Mine, run-of-mine, 12/14/00, 4 bags
	West Elk Mine, Somerset Field, Sale Coal Stockpile, 12/15/00
	King Coal Mine, San Juan River Region, RO52215A, 5/22/01, run-of-mine
	New Horizon Mine, Nucla-Naturita Field, RO52215A, 5/22/01, run-of-mine
nber	Bowie #2 Mine, Somerset Field, RO52215A, 5/23/01, run-of-mine
	West Elk Mine, Somerset Field, RO52319A, 5/23/01, run-of-mine
nber	Sanborn Creek Mine, Somerset Field, RO52320A, 5/23/01, run-of-mine
	McClane Canyon Mine, Book Cliffs Field, RO52417A, 5/24/01, run-of-mine
Wadge coal	Seneca II-W Mine, Middle Coal Group, Yampa Field, Wadge bed, run-of-mine
	Yoast Mine, Middle Coal Group, Yampa field, run-of-mine
	Twenty Mile Foidel Creek Mine, Middle Coal Group, Yampa Field, run-of-mine

Coal	Description
	West Elk Mine, ROM dated 5/17/01, collected 7/13/01 from lab, run-of-mine
	West Elk Mine, ROM dated 7/13/01, collected 7/17/01 from lab (Miss. power split)
	Deserado Mine, Lower White River Field, B seam, ROM large chunk
	Deserado Mine, Lower White River Field, B seam, ROM, prep plant feed coal
	Deserado Mine, Lower White River Field, B seam, sales coal/wash plant conveyor
	Colowyo Mine, East pit, "C" bed, channel sample. 7/13/01, 2 bags
	Colowyo Mine, East pit, "D" bed, channel sample. 6/17/01, 1 bag
	Colowyo Mine, West pit, "F" bed, channel sample. 7/13/01, 1 bag
	Colowyo Mine, West pit, "X" bed, channel sample. 5/16/01, 1 bag
	Colowyo Mine, East pit, "B" bed, channel sample. 7/13/01, 1 bag
	Colowyo Mine, West pit, "X" bed, channel sample. 12/31/01, 2 bags
	Colowyo Mine, West pit, "F" bed, channel sample. 12/31/01, 2 bags
	Trapper Mine, Upper Coal Group, Yampa Field, Derringer pit, R bed, channel
	Trapper Mine, Upper Coal Group, Yampa Field, Derringer Pit, Q bed, run-of-mine
	Lorencito Mine, M Seam, ROM stockpile (13,000 BTU)
	Lorencito Mine, N-A Seam, ROM stockpile (13,100 BTU)
	West Elk Mine, ROM dated 7/13/01, collected 7/17/01 from lab (Miss. power split)
Iron Post coal	14" thick; T24N, R17E, sec. 9, NW, SE, SW, SE, channel
Iron Post coal	13" thick; T25N, R17E, sec. 11, SW, NW, NW, SW, channel
Croweburg coal	16" thick; T26N, R18E, sec.13, NE, SE, NW, NE, channel
Mineral coal	face channel sample
Stiger coal	Farrell-Cooper Mining Co. Liberty Mine, channel
Lower Hartshorne coal	Farrell-Cooper Mining Co. Heavener East Mine, channel
Iron Post coal	17" thick; T25N R17E sec. 33 NW NE NW, channel

Coal	Description
Croweburg coal	17" thick; T25N R18E sec.19 NE SW SE, channel
Danville Coal Member	Riola Mine of Catlin Coal Co., channel
Herrin Coal Member	upper bench, 159.2-161.5 ft.,ISGS Villa Grove #1, channel
Herrin Coal Member	lower bench, 200.6-204.2 ft.,ISGS Villa Grove #1, channel
Springfield Coal Member	220.00-223.75 ft., ISGS Villa Grove #1 core
Murphysboro Coal Member	Creek Paum Mine, 4.40 ft. thick, channel
Murphysboro Coal Member	Creek Paum Mine, 4.30 ft. thick, channel
Murphysboro Coal Member	Creek Paum Mine, 4.42 ft. thick, channel
Herrin Coal Member	Wildcat Hills Mine, 3.67 ft., 0.23 ft. shale excluded, channel
Herrin Coal Member	Wildcat Hills Mine, 3.81 ft., 0.08 ft. shale excluded, channel
Herrin Coal Member	Wildcat Hills Mine, 3.70 ft., 0.11 ft. shale excluded, channel
Herrin Coal Member	Razorback Mine, 7.93 ft., 0.15 ft. shale excluded, channel
Danville Coal Member	SDH-383, 494.4-495.3 ft., core
Hymera Coal Member	SDH-383, 505.7-506.4 ft., core
Herrin Coal Member	SDH-383, 546.3-548.3 ft., core
Springfield Coal Member	SDH-383, 625.6-627.6 ft., core
Houchin Creek Coal Member	SDH-383, 740.4-742.7 ft., core
Survant Coal Member	SDH-383, 791.8-792.8 ft., core
Colchester Coal Member	SDH-383, 867.5-868.4 ft., core
Seeleyville Coal Member	SDH-383, 896.6-897.6 ft., core
Davis Coal Member	SDH-383, 905-907 ft., core
Holland Coal Member	SDH-383, 970.35-971.35 ft., core
Buffaloville Coal Member	SDH-383, 1124-1125 ft., core
Lower Block Coal Member	SDH-383, 1178.2-1179.2 ft., core
uncorrelated coal	SDH-384, 343.7-346.5 ft., core
uncorrelated coal	SDH-384, 383.3-? ft., core
uncorrelated coal	SDH-384, 475.8-479.2 ft., core

Coal	Description
uncorrelated coal	SDH-384, 584.7-586.6 ft., core
uncorrelated coal	SDH-384, 621.95-623.65 ft., core
uncorrelated coal	SDH-384, 633.65-634.9 ft., core
uncorrelated coal	SDH-384, 747.4-749.4 ft., core
uncorrelated coal	SDH-384, 755-757 ft., core
uncorrelated coal	SDH-384, 791.5-792 ft., core
Upper Block Coal Member	face channel sample, 88 cm thick, Eel Mine
Upper Block Coal Member	face channel sample, 88 cm thick, Eel Mine
Upper Block Coal Member	face channel sample, 88 cm thick, Eel Mine
Lower Block Coal Member	85 cm thick, Miller Creek Mine, face channel sample
Lower Block Coal Member	85 cm thick, Miller Creek Mine
Lower Block Coal Member	85 cm thick, Miller Creek Mine
Lower Block Coal Member	85 cm thick, Miller Creek Mine
Lower Block Coal Member	89 cm thick, Miller Creek Mine
Lower Block Coal Member	89 cm thick, Miller Creek Mine
Lower Block Coal Member	89 cm thick, Miller Creek Mine
Lower Block Coal Member	89 cm thick, Miller Creek Mine
Upper Block Coal Member	151 cm thick, Miller Creek Mine
Upper Block Coal Member	151 cm thick, Miller Creek Mine
Upper Block Coal Member	151 cm thick, Miller Creek Mine
Minshall Coal Member	bench sample, 0-63 cm, Rainbow Mine, channel
Minshall Coal Member	bench sample, 0-63 cm, 1.6 float
Minshall Coal Member	bench sample, 63-94 cm, Rainbow Mine
Minshall Coal Member	bench sample, 63-94 cm, 1.6 float
Minshall Coal Member	bench sample, 94-131 cm, Rainbow Mine
Minshall Coal Member	bench sample, 94-131 cm, 1.6 float
Upper Block Coal Member	bench sample, 0-28 cm, Rainbow Mine

Coal	Description
Upper Block Coal Member	bench sample, 0-28 cm, 1.6 float
Upper Block Coal Member	bench sample, 28-53 cm, Rainbow Mine
Upper Block Coal Member	bench sample, 28-53 cm, 1.6 float
Upper Block Coal Member	bench sample, 53-73 cm, Rainbow Mine
Upper Block Coal Member	bench sample, 53-73 cm, 1.6 float
Danville Coal Member	bench sample, 0-33 cm, Farmersburg Mine
Danville Coal Member	bench sample, 0-33 cm, 1.5 float
Danville Coal Member	bench sample, 33-69 cm, Farmersburg Mine
Danville Coal Member	bench sample, 33-69 cm, 1.5 float
Danville Coal Member	bench sample, 69-96 cm, Farmersburg Mine
Danville Coal Member	bench sample, 69-96 cm, 1.5 float
Danville Coal Member	bench sample, 96-117 cm, Farmersburg Mine
Danville Coal Member	bench sample, 96-117 cm, 1.5 float
Lower Block Coal Member	85 cm thick, Miller Creek Mine
Minshall Coal Member	bench sample, 0-63 cm, 1.6 float
Upper Block Coal Member	bench sample, 53-73 cm, 1.6 float
Danville Coal Member	bench sample, 0-34 cm, Farmersburg Mine
Danville Coal Member	bench sample, 0-34 cm, 1.5 float
Danville Coal Member	bench sample, 34-70 cm, Farmersburg Mine
Danville Coal Member	bench sample, 34-70 cm, 1.5 float
Danville Coal Member	bench sample, 70-93 cm, Farmersburg Mine
Danville Coal Member	bench sample, 70-93 cm, 1.5 float
Hymera Coal Member	bench sample, 0-34 cm, Farmersburg Mine
Hymera Coal Member	bench sample, 0-34 cm, 1.5 float
Hymera Coal Member	bench sample, 34-63 cm, Farmersburg Mine
Hymera Coal Member	bench sample, 34-63 cm, 1.5 float
Hymera Coal Member	bench sample, 65-97 cm, Farmersburg Mine

Coal	Description
Hymera Coal Member	bench sample, 65-97 cm, 1.5 float
Danville Coal Member	bench sample, 0-15 cm, Air Quality Mine
Danville Coal Member	bench sample, 0-15 cm, 1.6 float
Danville Coal Member	bench sample, 15-43 cm, Air Quality Mine
Danville Coal Member	bench sample, 15-43 cm, 1.6 float
Danville Coal Member	bench sample, 43-103 cm, Air Quality Mine
Danville Coal Member	bench sample, 43-103 cm, 1.6 float
Danville Coal Member	bench sample, 103-148 cm, Air Quality Mine
Danville Coal Member	bench sample, 103-148 cm, 1.6 float
Danville Coal Member	mineral tailings, raw. Air Quality Mine
Danville Coal Member	mineral tailings, 1.6 float, Air Quality Mine
Mariah Hill Coal Member	bench sample, 0-22 cm, Flint Hill Mine
Mariah Hill Coal Member	bench sample, 0-22 cm, 1.6 float
Mariah Hill Coal Member	bench sample, 22-42 cm, Flint Hill Mine
Mariah Hill Coal Member	bench sample, 22-42 cm, 1.6 float
Mariah Hill Coal Member	bench sample, 44-68 cm, Flint Hill Mine
Mariah Hill Coal Member	bench sample, 44-68 cm, 1.6 float
unnamed coal	bench sample, 0-24 cm, Flint Hill Mine
unnamed coal	bench sample, 0-24 cm, 1.6 float
unnamed coal	bench sample, 24-47 cm, Flint Hill Mine
unnamed coal	bench sample, 24-47 cm, 1.6 float
unnamed coal	bench sample, 47-57 cm, Flint Hill Mine
unnamed coal	bench sample, 47-57 cm, 1.6 float
unnamed coal	bench sample, 57-77 cm, Flint Hill Mine
unnamed coal	bench sample, 57-77 cm, 1.6 float
unnamed coal	bench sample, 0-24 cm, 1.6 float
Danville Coal Member	bench sample, 34-70 cm, Farmersburg Mine

Coal	Description
Hymera Coal Member	bench sample, 34-63 cm, 1.5 float
Lower Block Coal Member	bench sample, 0-31 cm, Miller Creek Mine
Lower Block Coal Member	bench sample, 0-31 cm, 1.6 float
Lower Block Coal Member	bench sample, 33-59 cm, Miller Creek Mine
Lower Block Coal Member	bench sample, 33-59 cm, 1.6 float
Lower Block Coal Member	bench sample, 59-73 cm, Miller Creek Mine
Lower Block Coal Member	bench sample, 59-73 cm, 1.6 float
unnamed coal	bench sample, 0-30 cm, Miller Creek Mine
unnamed coal	bench sample, 0-30 cm, Miller Creek Mine, 1.6 float
unnamed coal	bench sample, 30-49 cm, Miller Creek Mine
unnamed coal	bench sample, 30-49 cm, Miller Creek Mine, 1.6 float
unnamed coal	bench sample, 49-56 cm, Miller Creek Mine
unnamed coal	bench sample, 49-56 cm, Miller Creek Mine, 1.6 float
unnamed coal	bench sample, 56-74 cm, Miller Creek Mine
unnamed coal	bench sample, 56-74 cm, Miller Creek Mine, 1.6 float
prepared coal	pulverized coal, Cully Plant, Mill C1 unit 3, Springfield Coal
prepared coal	pulverized coal, Cully Plant, Mill B1 unit 3. Springfield Coal
prepared coal	pulverized coal, Cully Plant, Mill E unit 3, Springfield Coal
prepared coal	pulverized coal, Cully Plant, Mill B3 unit 2, Springfield Coal
prepared coal	pulverized coal, Cully Plant, Mill A unit 2, Springfield Coal
prepared coal	pulverized coal, GE boiler1, Danville Coal
prepared coal	pulverized coal, GE boiler2, Danville Coal
prepared coal	Air Quality Mine prod, Danville Coal
Springfield Coal Member	Cypress Creek Mine, bench 1, 0-31 cm.
Springfield Coal Member	Cypress Creek Mine, bench 1, 1.5 float
Springfield Coal Member	Cypress Creek Mine, bench 2, 31-40 cm.
Springfield Coal Member	Cypress Creek Mine, bench 2, 1.5 float

Coal	Description
Springfield Coal Member	Cypress Creek Mine, bench 4, 43-83 cm.
Springfield Coal Member	Cypress Creek Mine, bench 4, 1.5 float
Springfield Coal Member	Cypress Creek Mine, bench 5, 83-114 cm.
Springfield Coal Member	Cypress Creek Mine, bench 5, 1.5 float
Springfield Coal Member	Cypress Creek Mine, bench 6, 114-152 cm.
Springfield Coal Member	Cypress Creek Mine, bench 6, 1.5 float
Lower Block Coal Member	bench sample, 33-59 cm, Miller Creek Mine
Springfield Coal Member	Cypress Creek Mine, bench 4, 43-83 cm.
fly ash	GE plant boiler2 baghouse2 fly ash, Danville Coal
fly ash	GE plant boiler2 baghouse4 fly ash, Danville Coal
fly ash	GE plant boiler2 baghouse6 fly ash, Danville Coal
fly ash	GE plant boiler2 baghouse8 fly ash, Danville Coal
fly ash	GE plant boiler1 baghouse1 fly ash, Danville Coal
fly ash	GE plant boiler1 baghouse3 fly ash, Danville Coal
fly ash	GE plant boiler1 baghouse5 fly ash, Danville Coal
fly ash	GE plant boiler1 baghouse7 fly ash, Danville Coal
hopper ash	GE plant unit 1, rear pass hopper, Danville Coal
fly ash	Culley Plant, Unit3 economizer east fly ash, Springfield Coal
fly ash	Culley Plant, Unit3 economizer west fly ash, Springfield Coal
fly ash	Culley Plant, Unit2 economizer east fly ash, Springfield Coal
gypsum	Culley Plant, Unit2+3 FGD Gypsum, Springfield Coal
fly ash	GE plant boiler2 baghouse4 fly ash, Danville Coal
Lower Block Coal Member	bench sample, 0-30 cm, Saline City Mine
Lower Block Coal Member	bench sample, 0-30 cm, 1.6 float
Lower Block Coal Member	bench sample, 30-52 cm, Saline City Mine
Lower Block Coal Member	bench sample, 30-52 cm, 1.6 float
Lower Block Coal Member	bench sample, 52-86 cm, Saline City Mine

Coal	Description
Lower Block Coal Member	bench sample, 52-86 cm, 1.6 float
Lower Block Coal Member	bench sample, 86-110 cm, Saline City Mine
Lower Block Coal Member	bench sample, 86-110 cm, 1.6 float
unnamed coal	bench sample, 0-26 cm, Saline City Mine
unnamed coal	bench sample, 0-26 cm, 1.6 float
unnamed coal	bench sample, 26-48 cm, Saline City Mine
unnamed coal	bench sample, 26-48 cm, 1.6 float
unnamed coal	bench sample, 50-62 cm, Saline City Mine
unnamed coal	bench sample, 50-62 cm, 1.6 float
Lower Block Coal Member	bench sample, 0-30 cm, Saline City Mine
Hymera Coal Member	bench channel sample, 0-27 cm, Somerville Mine
Hymera Coal Member	bench channel sample, 0-27 cm, 1.55 float
Hymera Coal Member	bench channel sample, 27-61 cm, Somerville Mine
Hymera Coal Member	bench channel sample, 27-61 cm, 1.55 float
Hymera Coal Member	bench channel sample, 61-89 cm, Somerville Mine
Hymera Coal Member	bench channel sample, 61-89 cm, 1.55 float
Hymera Coal Member	face channel sample, 0-89 cm, Somerville Mine
Hymera Coal Member	face channel sample, 0-89 cm, 1.55 float
Springfield Coal Member	bench channel sample, 0-33 cm, Somerville Mine
Springfield Coal Member	bench channel sample, 0-33 cm, 1.55 float
Springfield Coal Member	bench channel sample, 33-74 cm, Somerville Mine
Springfield Coal Member	bench channel sample, 33-74 cm, 1.55 float
Springfield Coal Member	bench channel sample, 74-103 cm, Somerville Mine
Springfield Coal Member	bench channel sample, 74-103 cm, 1.55 float
Springfield Coal Member	bench channel sample, 103-143 cm, Somerville Mine
Springfield Coal Member	bench channel sample, 103-143 cm, 1.55 float
Hymera Coal Member	face channel sample, 0-89 cm, 1.55 float

Coal	Description
Springfield Coal Member	bench channel sample, 103-143 cm, Somerville Mine
Springfield Coal Member	bench sample, 0-56.4 cm thick, Wabash Mine, raw
Springfield Coal Member	0-56.4 cm thick, Wabash Mine, float
Springfield Coal Member	bench sample, 56.4 - 97.5 cm thick, Wabash Mine, raw
Springfield Coal Member	56.4 - 97.5 cm thick, Wabash Mine float
Springfield Coal Member	bench sample, 97.5 - 140.2 cm thick, Wabash Mine, raw
Springfield Coal Member	97.5 - 140.2 cm thick, Wabash Mine, float
Springfield Coal Member	bench sample, 140.2 - 198.1 cm thick, Wabash Mine, raw
Springfield Coal Member	140.2 - 198.1 cm thick, Wabash Mine, float
Danville Coal Member	bench sample, 0 - 16 cm thick, Air Quality Mine
Danville Coal Member	bench sample, 19 - 51 cm thick, Air Quality Mine
Danville Coal Member	bench sample, 51 - 84 cm thick, Air Quality Mine
Danville Coal Member	bench sample, 84 - 138 cm thick, Air Quality Mine
Upper Block Coal Member	bench sample, 0 - 2 cm thick, Billings Mine
Upper Block Coal Member	bench sample, 2 - 23 cm thick, Billings Mine
Upper Block Coal Member	bench sample, 23 - 40 cm thick, Billings Mine
Upper Block Coal Member	bench sample, 40 - 54 cm thick, Billings Mine
Lower Block Coal Member	bench sample, 0 - 16 cm thick, Billings Mine
Lower Block Coal Member	bench sample, 16 - 31 cm thick, Billings Mine
Lower Block Coal Member	bench sample, 31 - 43 cm thick, Billings Mine
Lower Block Coal Member	bench sample, 44 - 53 cm thick, Billings Mine
Buffaloville Coal Member	bench sample, bench sample, 0 - 21 cm thick, Midway Mine
Buffaloville Coal Member	bench sample, 30 - 43 cm thick, Midway Mine
Buffaloville Coal Member	bench sample, 72 - 85 cm thick, Midway Mine
Buffaloville Coal Member	bench sample, 85 - 105 cm thick, Midway Mine
Springfield Coal Member	bench sample, Franciscon Mine, 0-24.3 raw
Springfield Coal Member	Franciscon Mine, 0-24.3 float

Coal	Description
Springfield Coal Member	bench sample, Franciscon Mine, 24.3-60.96 raw
Springfield Coal Member	Franciscon Mine, 24.3-60.96 float
Springfield Coal Member	bench sample, Franciscon Mine, 60.96-103.6 raw
Springfield Coal Member	Franciscon Mine, 60.96-103.6 float
Springfield Coal Member	bench sample, Franciscon Mine, 103.6-146.3 raw
Springfield Coal Member	Franciscon Mine, 103.6-146.3 float
Seeleyville Coal Member	Black Beauty corehole 33-H8, 447.7-448.7 raw
Seeleyville Coal Member	Black Beauty corehole 33-H8, 447.7-448.7 float
Seeleyville Coal Member	Black Beauty corehole 33-H8, 448.7-449.7 raw
Seeleyville Coal Member	Black Beauty corehole 33-H8, 448.7-449.7 float
Seeleyville Coal Member	Black Beauty corehole 33-H8, 449.7-450.7 raw
Seeleyville Coal Member	Black Beauty corehole 33-H8, 449.7-450.7 float
Seeleyville Coal Member	Black Beauty corehole 33-H8, 450.7-451.7 raw
Seeleyville Coal Member	Black Beauty corehole 33-H8, 450.7-451.7 float
Seeleyville Coal Member	Black Beauty corehole 33-H8, 452.5-453.5 raw
Seeleyville Coal Member	Black Beauty corehole 33-H8, 452.5-453.5 float
Seeleyville Coal Member	Black Beauty corehole 33-H8, 453.5-454.5 raw
Seeleyville Coal Member	Black Beauty corehole 33-H8, 453.5-454.5 float
Seeleyville Coal Member	Black Beauty corehole 33-H8, 454.5-455.5 raw
Seeleyville Coal Member	Black Beauty corehole 33-H8, 454.5-455.5 float
Seeleyville Coal Member	Black Beauty corehole 33-H8, 455.5-456.5 raw
Seeleyville Coal Member	Black Beauty corehole 33-H8, 455.5-456.5 float
Upper Millersburg Coal Member	bench sample, Franciscon Mine, 0-21.3 raw
Upper Millersburg Coal Member	Franciscon Mine, 0-21.3 float
Upper Millersburg Coal Member	bench sample, Franciscon Mine, 21.3-39.6 raw
Upper Millersburg Coal Member	Franciscon Mine, 21.3-39.6 float
Upper Millersburg Coal Member	bench sample, Franciscon Mine, 9.6-57.9 raw

Coal	Description
Upper Millersburg Coal Member	Franciscon Mine, 39.6-57.9 float
Upper Millersburg Coal Member	bench sample, Franciscon Mine, 0-33.5 raw
Upper Millersburg Coal Member	Franciscon Mine, 0-33.5 float
Upper Millersburg Coal Member	bench sample, Franciscon Mine, 33.5-64 raw
Upper Millersburg Coal Member	Franciscon Mine, 33.5-64 float
Upper Millersburg Coal Member	bench sample, Franciscon Mine, 64-94.5 raw
Upper Millersburg Coal Member	Franciscon Mine, 64-94.5 float
Upper Millersburg Coal Member	bench sample, Franciscon Mine, 94.5-118.9 raw
Upper Millersburg Coal Member	Franciscon Mine, 94.5-118.9 float
Pirtle Coal Member	bench sample, Franciscon Mine, 30 raw
Pirtle coal	Franciscon Mine, 30 float
Big Run coal	Depth 133.5 to 136.8 ft, samp thick 3.3 ft., core
Briar Hill coal	Depth 1146.07 to 1148.12 ft, samp thick 2.05 ft., core
Baker coal	Depth 1086.8 to 1088.7 ft, samp thick 1.9 ft., core
Springfield coal	Depth 1217.92 to 1219.52 ft, top bench, samp thick 1.6 ft., core
Springfield coal	Depth 1219.52 to 1221.02 ft, middle bench, samp thick 1.5 ft., core
Springfield coal	Depth 1221.02 to 1222.52 ft, bottom bench, samp thick 1.5 ft., core
Springfield coal	Depth 1137 to 1137.91 ft, roof rock, samp thick .91 ft., core
uncorrelated coal	Depth1069.8 to 1071.6 ft, samp thick 1.8 ft., core
Baker coal	Depth 1013.9 to 1015.8 ft, top bench, samp thick 1.9 ft., core
Baker coal	Depth 1015.8 to 1017.6 ft, middle bench., core
Baker coal	Depth 1017.6 to 1019 ft, bottom bench., core
Springfield coal	Depth 1137.91 to 1139.91 ft, top bench., core
Springfield coal	Depth 1139.91 to 1141.79 ft, middle bench., core
Springfield coal	Depth 1141.79 to 1142.38 ft, bottom bench., core
Springfield coal	Depth 1137 to 1137.91 ft, roof rock, samp thick 0.91 ft., core
Davis coal	Depth 1007.11 to 1009.8 ft, samp thick 2.7 ft., core

Coal	Description
Davis coal	Depth coal bed, Depth 1006.8 to 1007.11 ft, roof rock, samp thick 0.31 ft., core
Survant coal	Depth 825.65 to 827.5 ft, top bench, samp thick 1.85 ft., core
Survant coal	Depth Depth 827.5 to 829.4 ft, bottom bench, samp thick 1.9 ft., core
Springfield coal	Depth 784.2 to 786.1 ft, top bench, samp thick 1.9 ft., core
Springfield coal	Depth 786.1 to 788.04 ft, middle bench, samp thick 1.94 ft., core
Springfield coal	Depth 788.04 to 789.35 ft bottom bench, samp thick 1.31 ft., core
Springfield coal	Depth 782.1 to 784 ft, roof rock, samp thick 1.9 ft., core
Colchester coal	Depth 927 to 928 ft, sampthick 1.0 ft., core
Colchester coal	Depth 924.8 to 926 ft, roof rock, samp thick 1.2 ft., core
Herrin coal	Depth 673.77 to 675.65 ft, top bench, samp thick 1.88 ft., core
Herrin coal	Depth 675.65 to 677.55 ft, top middle bench, samp thick 1.85 ft., core
Herrin coal	Depth 677.55 to 678.88 ft, middle bench, samp thick 1.33 ft., core
Herrin coal	Depth 678.88 to 680.18 ft, bottom bench, samp thick 1.3 ft., core
prepared coal	E Ky. PC Cooper Plant, unit 2, pulverized coal
prepared coal	E Ky. PC Cooper Plant, unit 2, pulverized reject
prepared coal	E Ky. PC Cooper Plant, unit 2, coal feed, 11/20/01
prepared coal	E Ky. PC Cooper Plant, unit 2, coal feed, 11/21/01
prepared coal	E Ky. PC Cooper Plant, unit 2, coal feed, 11/22/01
prepared coal	E Ky. PC Cooper Plant, unit 2, coal feed, 11/28/01
prepared coal	E Ky. PC Cooper Plant, unit 2, coal feed, 11/29/01
prepared coal	E Ky. PC Cooper Plant, unit 2, coal feed, 11/30/01
Dean (Fireclay) coal	Bob Gray Mtn. Mine, face channel, 44.3 in.
Dean (Fireclay) coal	Bob Gray Mtn. Mine, bench channel, 6.7 in., top
Dean (Fireclay) coal	Bob Gray Mtn. Mine, bench channel, 7.8 in.

Coal	Description
Dean (Fireclay) coal	Bob Gray Mtn. Mine, bench channel, 9.1 in.
Dean (Fireclay) coal	Bob Gray Mtn. Mine, bench channel, 6.3 in.
Dean (Fireclay) coal	Bob Gray Mtn. Mine, bench channel, 6.7 in.
Dean (Fireclay) coal	Bob Gray Mtn. Mine, bench channel, 3.7 in., btm.
prepared coal	E Ky. PC Cooper Plant, unit 2, pulverized reject
Dean (Fireclay) coal	Bob Gray Mtn. Mine, face channel, 44.3 in.
fly ash	E Ky. PC Cooper Plant, unit 2, economizer fly ash,bin 30
fly ash	E Ky. PC Cooper Plant, unit 2, mechanical fly ash, bin 28, row 1
fly ash	E Ky. PC Cooper Plant, unit 2, mechanical fly ash, bin 26, row 1
fly ash	E Ky. PC Cooper Plant, unit 2, mechanical fly ash, bin 24, row 1
fly ash	E Ky. PC Cooper Plant, unit 2, mechanical fly ash, bin 22, row 1
fly ash	E Ky. PC Cooper Plant, unit 2, mechanical fly ash, bin 20, row 2
fly ash	E Ky. PC Cooper Plant, unit 2, mechanical fly ash, bin 18, row 2
fly ash	E Ky. PC Cooper Plant, unit 2, mechanical fly ash, bin 16, row 2
fly ash	E Ky. PC Cooper Plant, unit 2, mechanical fly ash, bin 14, row 2
fly ash	E Ky. PC Cooper Plant, unit 2, ESP fly ash, bin 12, row 1
fly ash	E Ky. PC Cooper Plant, unit 2, ESP fly ash, bin 9, row 1
fly ash	E Ky. PC Cooper Plant, unit 2, ESP fly ash, bin 8, row 2
fly ash	E Ky. PC Cooper Plant, unit 2, ESP fly ash, bin 5, row 2
fly ash	E Ky. PC Cooper Plant, unit 2, ESP fly ash, bin 4, row 3
fly ash	E Ky. PC Cooper Plant, unit 2, ESP fly ash, bin 1, row 3
bottom ash	E Ky. PC Cooper Plant, unit 2, bottom ash
fly ash	E Ky. PC Cooper Plant, unit 2, mechanical fly ash, bin 24, row 1, dup.
fly ash	E Ky. PC Cooper Plant, unit 2, ESP fly ash, bin 8, row 2, dup.
Lower Kittanning coal	0-0.4 ft thick out of .8ft, lower bench of lower split, channel
Lower Kittanning coal	0.4-0.8 ft thick out of .8ft, upper bench of lower split, channel
Lower Kittanning coal	3.6 ft thick, channel

Coal	Description
Lower Kittanning coal	4 ft thick, channel
Lower Kittanning coal	4 ft thick, channel
Lower Kittanning coal	4 ft thick, channel
Lower Kittanning coal	4 ft thick, channel
Lower Kittanning coal	4 ft thick, channel
Sewickley coal	1.15 ft thick, channel
Redstone coal	3.6 ft thick, channel
Morantown coal	4.325 ft thick, channel
Lower Freeport coal	2.8 ft thick, channel
Sewickley coal	1.15 ft thick, channel
Redstone coal	3.6 ft thick, channel
Morantown coal	4.325 ft thick, channel
Lower Freeport coal	2.8 ft thick, channel
Upper Kittanning coal	4.0 ft thick, channel
Lower Kittanning coal	4.0 ft thick, channel
	Blend of Lower Kittanning, Upper Kittanning & Morantown, 12.325 ft
	Blend of Lower Kittanning, Upper Kittanning & Morantown, 12.325 ft
Pittsburgh coal	bottom bench, 2.6 ft., channel
Blue Lick coal	Blue Lick with rider, 5.95 ft, channel
	Blend of bottom bench of Pittsburgh, Lower Kittanning, Redstone, & Blue Lick, 14.34 ft
Lower Kittanning coal	2.67ft. thick., Mechanically separated, fine-size (< 1-1/2 in) fraction, representing most marketab
Lower Kittanning coal	2.67ft. thick., Mechanically separated, coarse-size (> 1-1/2 in) fraction or "middlings," representi
Lower Kittanning coal	2.67ft. thick, run-of-mine from conveyor belt
Lower Kittanning coal	2.67ft. thick, Mechanically separated, fine-size (< 1-1/2 in) fraction, representing most marketab
Lower Kittanning coal	2.30ft. thick., channel from highwall face, about 75 ft (22.9 m) east of northernmost adit (manwa
Pittsburgh coal	6.2ft thick. (includes 0.8 ft roof coal and 5.4 ft main seam), channel from highwall face
Pittsburgh coal	Approximately 6.3ft thick. (includes 0.8 ft roof coal and 5.5 ft main seam), run-of-mine stockpile

Coal	Description
Pittsburgh coal	Approximately 6.3ft thick. (includes 0.8 ft roof coal and 5.5 ft main seam), run-of-mine conveyo
Pittsburgh coal	Approximately 6.3ft thick(includes 0.8 ft roof coal and 5.5 ft main seam), washed stockpile
Pittsburgh coal	Approximately 6.3ft thick.(includes 0.8 ft roof coal and 5.5 ft main seam), refuse from washed s
Jellico coal	35.5" thick, channel
Mingo coal	28.5" thick, channel
Nemo coal	22" thick, channel
Pewee coal	29" thick, channel
Richland coal	34" thick, channel
Rex coal	(Catoosa), 31" thick, channel
Walnut Mountain	26" thick, channel
	26" thick, channel
Mingo coal	D2, 22" thick, channel
Mingo coal	D1, 15" thick, channel
Sewickley coal	face channel sample 6.25 ft thick
No. 6 Block coal	lower split. face channel sample, 5.65 ft thick
No. 6 Block coal	upper split face channel sample 5.72 ft thick
No. 5 Block coal	face channel sample 6.50 ft thick
Little No. 5 Block coal	face channel sample 3.00 ft thick
Stockton coal	face channel sample 7.37 ft thick
Stockton coal	face channel sample 6.50 ft thick
Stockton coal	face channel sample 6.64 ft thick
Stockton coal	face channel sample 1.50 ft thick
Coalburg coal	face channel sample 6.29 ft thick
Coalburg coal	face channel sample 7.76 ft thick
Coalburg coal	bench face channel sample 4.32 ft thick
Coalburg coal	lower middle split face channel sample 1.12 ft thick
Coalburg coal	upper (A) split face channel sample 2.42 ft thick

Coal	Description
Winifrede coal	upper split face channel sample 2.80 ft thick
Coalburg coal	full face channel sample 4.62 ft thick
Stockton coal	middle split face channel sample 2.40 ft thick
Stockton coal	lower split upper bench face channel sample 2.95 ft thick
Stockton coal	lower split lower bench face channel sample 2.25 ft thick
Williamson coal	full face channel sample 1.97 ft thick
No. 5 Block coal	full face channel sample from core 6.70 ft thick
Coalburg coal	full face channel sample from core 2.97 ft thick
Coalburg coal	face channel sample 5.72 ft thick
Coalburg coal	face channel sample 5.89 ft thick
Coalburg coal	face channel sample 4.25 ft thick
Winifrede coal	face channel sample 4.00 ft thick
Winifrede coal	lower split face channel sample 2.45 ft thick
Coalburg coal	upper split face channel sample 2.75 ft thick
Coalburg coal	face channel sample 4.75 ft thick
No. 6 Block coal	lower split face channel sample 2.85 ft thick
No. 6 Block coal	upper split face channel sample 7.53 ft thick
Redstone coal	full face channel sample 6.48 ft thick
Bakerstown coal	full face channel sample 3.87 ft thick
Upper Freeport coal	full face channel sample 4.14 ft thick
No. 5 Block coal	face bench channel sample 2.45 ft thick
No. 5 Block coal	full face channel sample 2.20 ft thick
Stockton coal	full face channel sample 3.22 ft thick
Winifrede coal	face bench channel sample 5.17 ft thick
Cedar Grove coal	full face channel sample 3.00 ft thick
Powellton coal	full face channel sample 3.65 ft thick
Coalburg coal	full face channel sample with partings 8.25 ft thick

Coal	Description
Winifrede coal	full face channel sample 4.50 ft thick
Waynesburg coal	upper bench channel sample 3.05 ft thick
Waynesburg coal	lower bench channel sample 4.41 ft thick
Sewickley coal	full face channel sample 4.57 ft thick
Sewickley coal	upper bench face channel sample 5.55 ft thick
Sewickley coal	full face channel sample 4.41 ft thick
Redstone coal	full face channel sample 5.55 ft thick
Bakerstown coal	upper bench channel sample 1.53 ft thick
Bakerstown coal	lower bench channel sample 2.53 ft thick
Upper Freeport coal	full face channel sample 3.43 ft thick
Upper Freeport coal	full face channel sample 4.17 ft thick
Upper Freeport coal	lower bench face channel sample 4.50 ft thick
Cedar Grove coal	full face channel sample 3.00 ft thick
Stockton coal	full channel sample from core 2.20 ft thick
No. 6 Block coal	full face channel sample 4.83 ft thick
No. 5 Block coal	face bench channel sample 1.00 ft thick (5.92-6.92 ft from Base)
Upper No. 5 Block coal	full face channel sample 3.75 ft thick
Stockton coal	Top split channel sample 1.70 ft thick (8.88-10.58 ft from Base)
Stockton coal	middle split channel 2.88 ft thick (5.54-8.42 ft from Base)
Stockton coal	lower middle split channel 2.17 ft thick (1.08-3.25 ft from Base)
Stockton coal	lower split channel 1.08 ft thick (0.00-1.08 ft from Base)
Coalburg coal	full channel sample from core 3.31 ft thick
Coalburg coal	full channel sample from core 5.80 ft thick
Stockton coal	full channel sample from core 2.45 ft thick
Coalburg coal	full channel sample from core 5.70 ft thick
Coalburg coal	bench channel sample from core 5.00 ft thick
Coalburg coal	bench channel sample from core 2.29 ft thick

Coal	Description
Coalburg coal	bench channel sample from core 4.50 ft thick
Coalburg coal	face bench channel sample 2.04 ft thick
Coalburg coal	face bench channel sample 4.00 ft thick
Coalburg coal	face bench channel sample 2.50 ft thick
Coalburg coal	face bench channel sample 2.50 ft thick
Winifrede coal	face bench channel sample 1.70 ft thick
No. 5 Block coal	full face channel sample 2.10 ft thick
Coalburg coal	full channel sample from core 3.31 ft thick
Stockton coal	upper split full face channel sample 5.05 ft thick
Coalburg coal	upper split full face channel sample 2.25 ft thick
No. 5 Block coal	full face channel sample 4.21 ft thick
No. 6 Block coal	full face channel sample 6.65 ft thick
Stockton coal	upper split full face channel sample 5.35 ft thick
Stockton coal	middle split full face channel sample 1.43 ft thick
No. 5 Block coal	full face channel sample 4.90 ft thick
Coalburg coal	upper split full face channel sample 3.85 ft thick
Coalburg coal	lower split full face channel sample 3.15 ft thick
Coalburg coal	full face channel sample 4.11 ft thick
Coalburg coal	lower bench full face channel sample 2.43 ft thick
Coalburg coal	middle bench full face channel sample 3.29 ft thick
Coalburg coal	upper bench full face channel sample 4.31 ft thick
Coalburg coal	lower bench face channel sample 6.05 ft thick
Coalburg coal	upper bench face channel sample 6.65 ft thick
Stockton coal	lower split bench face channel sample 1.38 ft thick
Stockton coal	bench face channel sample 4.26 ft thick
Stockton coal	full face channel sample 6.35 ft thick
Upper No. 5 Block coal	full face channel sample 3.97 ft thick

Coal	Description
Stockton coal	rider coal, face channel sample 2.79 ft thick
No. 5 Block coal	full face channel sample 4.30 ft thick
Stockton coal	upper split face channel sample 1.30 ft thick
Coalburg coal	lower split full face channel sample 4.55 ft thick
Coalburg coal	upper split lower bench full face channel sample 4.55 ft thick.
Coalburg coal	upper split middle bench full face channel sample 3.77 ft thick.
Coalburg coal	upper split upper bench full face channel sample 2.65 ft thick.
Coalburg coal	lower bench face channel sample 2.96 ft thick
Coalburg coal	upper bench face channel sample 3.85 ft thick
Stockton coal	upper bench face channel sample 2.42 ft thick
Middle Kittanning coal	full face channel sample 5.12 ft thick
Coalburg coal	upper bench face channel sample 6.65 ft thick
Stockton coal	full face channel sample 6.35 ft thick
Cedar Grove coal	lower split full face channel with partings sample 1.70 ft thick
Dean (Fireclay) coal	full face channel with partings sample 4.35 ft thick
Cedar Grove coal	upper split full face channel With partings sample 2.00 ft thick
Winifrede coal	full face channel sample 1.42 ft thick
Winifrede coal	full face bench channel sample 1.83 ft thick
Sewell coal	full channel with partings sample from core 2.70 ft thick
Coalburg coal	bench face channel sample 2.93 ft thick
Sewell coal	full channel from confidentrial core 3.31 ft thick location approx.
No. 2 Gas coal	full channel sample from core 3.56 ft thick
Upper Kittanning coal	full channel sample from core 3.36 ft thick
Coalburg coal	bench channel sample 1.13 ft thick (6.75-7.88 ft from Base)
Eagle coal	full face channel 4.50 ft thick
Welch coal	full channel from confidentrial core 2.30 ft thick location approx.
Peerless coal	full face channel 2.10 ft thick

Coal	Description
No. 2 Gas coal	full channel sample from core 2.29 ft thick
Middle Kittanning coal	full channel sample from core 1.98 ft thick
Lower Kittanning coal	upper bench channel sample from core 2.28 ft thick
Lower Kittanning coal	lower bench channel sample from core 2.10 ft thick
Redstone coal	full face channel sample 4.35 ft thick
Middle Kittanning coal	full face channel sample 3.67 ft thick
Sewickley coal	channel sample from core 5.40 ft thick
Redstone coal	channel sample from core 2.70 ft thick
Pittsburgh coal	channel sample from core 8.50 ft thick
Pittsburgh coal	full face channel sample 5.60 ft thick
No. 5 Block coal	lower bench sample from core 5.90 ft thick (0.00-5.90 ft)
No. 5 Block coal	upper bench sample from core 7.01 ft thick (7.56-14.57 ft)
Stockton coal	channel sample from core 5.10 ft thick
Little Chilton coal	channel sample from core 4.25 ft thick
No. 2 Gas coal	channel sample from core 3.29 ft thick
Lower Powellton coal	channel sample from core 2.38 ft thick
Sewell coal	full channel from confidentrial core 2.45 ft thick location approx.
Powellton coal	full channel from confidentrial core 3.70 ft thick location approx.
Stockton coal	bench channel sample 2.80 ft thick
Pittsburgh coal	8.20 ft thick full channel sample I-79 Fairmont exit bridge
Stockton coal	Newville core 2.64 ft full channel sample
Stockton coal	Newville core 1.20 ft bench sample
Little No. 5 Block coal	Newville core 0.85 ft full channel sample
Lower Kittanning coal	Newville core 6.07 ft full channel sample with partings
Sewell coal	Newville core 2.01 ft full channel sample
Sewell coal	Newville core 3.60 ft full channel sample
Sewell coal	Newville core 2.84 ft full channel sample

Coal	Description
Middle Kittanning coal	Newville core 1.51 ft lower split sample
Middle Kittanning coal	Newville core 3.00 ft middle split sample without parting
Upper Kittanning coal	Newville core 0.93 ft full channel sample
Brush Creek coal	Newville core 1.62 ft full channel sample
Lower Mercer coal	Mylan Park core 1.00 ft thick full channel
Upper Mercer coal	Mylan Park core 0.75 ft thick full channel
Quakertown coal	Mylan Park core 0.83 ft thick lower split, channel
Quakertown coal	Mylan Park core 0.75 ft thick upper split, channel
Sewickley coal	confidentrial core sample 5.30 ft full channel sample
Waynesburg coal	confidentrial core sample 3.10 ft full channel sample
Waynesburg coal	confidentrial core sample 7.07 ft full channel sample
Sewickley coal	confidentrial core sample 3.95 ft full channel sample
Pittsburgh coal	8.58 ft thick full channel sample Morgantown Mall Section
Pittsburgh coal	6.90 ft thick full channel sample I-79 AT RT 279 Section
Pittsburgh coal	8.20 ft thick full channel sample I-79 Fairmont Exit Bridge
Lower Freeport coal	USGS#2 core 1.80 ft thick full channel
Upper Freeport coal	USGS#2 core 5.50 ft thick lower bench channel
Lower Kittanning coal	USGS#2 core 5.10 ft thick upper bench, channel
Coalburg coal	1.42 ft thick Bottom bench White Flame surface mine, channel
Coalburg coal	1.88 ft thick lower middle bench White Flame surface mine, channel
Coalburg coal	1.00 ft thick middle middle bench White Flame surface mine, channel
Coalburg coal	0.95 ft thick upper middle bench White Flame surface mine, channel
Coalburg coal	0.85 ft thick upper bench White Flame surface mine, channel
Coalburg coal	1.25 ft thick Top Rash coal White Flame surface mine, channel
Coalburg coal	0.90 ft thick upper bench Elkay surface mine, channel
Coalburg coal	2.20 ft thick Top Rash roal Elkay surface mine, channel
Coalburg coal	1.50 ft thick middle bench Elkay surface mine, channel

Coal	Description
Coalburg coal	1.05 ft thick Bottom bench Elkay surface mine, channel
No. 5 Block coal	2.38 ft thick C1 bench Pen Coal surface mine, channel
Coalburg coal	0.80 ft thick upper A bench Pen Coal surface mine, channel
Coalburg coal	1.16 ft thick middle B bench Pen Coal surface mine, channel
Coalburg coal	1.85 ft thick lower C bench Pen Coal surface mine, channel
Upper Freeport coal	USGS#7 core 1.94 ft thick full channel sample
Upper No. 5 Block coal	USGS#7 core 0.83 ft thick full channel sample
Clarion coal	Rocky Parsons core 1.02 ft thick full channel sample
Chilton coal	Newville core 1.50 ft full channel sample
Coalburg coal	Newville core 7.75 ft full channel sample with partings
Coalburg coal	2.20 ft thick Top Rash coal Elkay surface Mine, channel

Table 2. -- Contents of major and minor oxides in 525ºC ash for 729 National Coal Quality Inventory
[blank space indicates no data or not analyzed]

Job number	Laboratory number	Field number	State	County	Formation
Northern Great Plains Province					
ERP00101	E-173222	44-23513	Wyoming	Campbell	Ft. Union Formation
ERP00101	E-173223	44-23514	Wyoming	Campbell	Ft. Union Formation
ERP00101	E-173224	44-23515	Wyoming	Campbell	Ft. Union Formation
ERP00101	E-173225	44-23516	Wyoming	Campbell	Ft. Union Formation
ERP00101	E-173226	44-23517	Wyoming	Campbell	Ft. Union Formation
ERP00101	E-173227	44-23518	Wyoming	Campbell	Ft. Union Formation
ERP00101	E-173228	44-23519	Wyoming	Campbell	Ft. Union Formation
ERP00101	E-173229	44-23520	Wyoming	Campbell	Ft. Union Formation
ERP00101	E-173230	44-23521	Wyoming	Campbell	Ft. Union Formation
ERP00101	E-173231	Silo 2A	Wyoming	Campbell	Ft. Union Formation
ERP00101	E-173232	Silo 2B	Wyoming	Campbell	Ft. Union Formation
ERP00101	E-173233	Silo 4A	Wyoming	Campbell	Ft. Union Formation
ERP00101	E-173234	Silo 4B	Wyoming	Campbell	Ft. Union Formation
ERP00302	E-207028	106A516	Wyoming	Campbell	Ft. Union Formation
ERP00302	E-207029	106B516	Wyoming	Campbell	Ft. Union Formation
ERP00302	E-207030	106C516	Wyoming	Campbell	Ft. Union Formation
ERP00302	E-207031	106D516	Wyoming	Campbell	Ft. Union Formation
ERP00302	E-207032	102A516	Wyoming	Campbell	Ft. Union Formation
ERP00302	E-207033	102B516	Wyoming	Campbell	Ft. Union Formation
ERP00302	E-207034	102C516	Wyoming	Campbell	Ft. Union Formation
ERP00302	E-207035	102D516	Wyoming	Campbell	Ft. Union Formation
ERP00302	E-207036	107REJECT48516	Wyoming	Converse	Ft. Union Formation
ERP00302	E-207037	107REJECT35516	Wyoming	Converse	Ft. Union Formation
ERP00302	E-207038	107REJECT516	Wyoming	Converse	Ft. Union Formation

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Job number	Laboratory number	Field number	State	County	Formation
ERP00302	E-207039	107B516PRB	Wyoming	Converse	Ft. Union Formation
ERP00302	E-207040	ANDERSONA516	Wyoming	Converse	Ft. Union Formation
ERP00302	E-207041	ANDERSONB516	Wyoming	Converse	Ft. Union Formation
ERP00302	E-207042	ANDERSONC516	Wyoming	Converse	Ft. Union Formation
ERP00302	E-207043	ANDERSOND516	Wyoming	Converse	Ft. Union Formation
ERP00302	E-207044	CANYONA516	Wyoming	Converse	Ft. Union Formation
ERP00302	E-207045	CANYONB516	Wyoming	Converse	Ft. Union Formation
ERP00302	E-207046	CANYONC516	Wyoming	Converse	Ft. Union Formation
ERP00302	E-207047	CANYOND516	Wyoming	Converse	Ft. Union Formation
ERP00302	E-207048	C3UA515	Wyoming	Campbell	Ft. Union Formation
ERP00302	E-207049	C3UB515	Wyoming	Campbell	Ft. Union Formation
ERP00302	E-207050	C3UC515	Wyoming	Campbell	Ft. Union Formation
ERP00302	E-207051	C3UD515	Wyoming	Campbell	Ft. Union Formation
ERP00302	E-207052	C1-2MA515	Wyoming	Campbell	Ft. Union Formation
ERP00302	E-207053	C1-2MB515	Wyoming	Campbell	Ft. Union Formation
ERP00302	E-207054	C1-2MC515	Wyoming	Campbell	Ft. Union Formation
ERP00302	E-207055	C1-2MD515	Wyoming	Campbell	Ft. Union Formation
ERP00302	E-207056	107REJECT48516	Wyoming	Converse	Ft. Union Formation
ERP00302	E-207057	ANDERSONC516	Wyoming	Converse	Ft. Union Formation
ERP00357	E-217253	7-11A	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217254	7-11B	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217255	7-12A	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217256	7-12B	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217257	7-12C	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217258	7-13A	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217259	7-13B	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217260	7-13C	Wyoming	Campbell	Ft. Union Formation

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Job number	Laboratory number	Field number	State	County	Formation
ERP00357	E-217261	7-14A	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217262	7-14B	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217263	7-14C	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217264	7-15A	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217265	7-15B	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217266	7-15C	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217267	7-15D	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217268	7-16B	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217269	7-17A	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217270	7-17B	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217271	7-17C	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217272	605A	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217273	609B	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217274	613B	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217275	614A	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217276	615	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217277	616	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217278	618	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217279	619	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217280	633	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217281	633B	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217282	633C	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217283	7-15C dup	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217284	609B dup	Wyoming	Campbell	Ft. Union Formation
ERP00358	E-217285	634	Wyoming	Campbell	Ft. Union Formation
ERP00358	E-217286	634B	Wyoming	Campbell	Ft. Union Formation
ERP00358	E-217287	634C	Wyoming	Campbell	Ft. Union Formation

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Job number	Laboratory number	Field number	State	County	Formation
ERP00358	E-217288	634D	Wyoming	Campbell	Ft. Union Formation
ERP00358	E-217289	636	Wyoming	Campbell	Ft. Union Formation
ERP00358	E-217290	637	Wyoming	Campbell	Ft. Union Formation
ERP00358	E-217291	638	Wyoming	Campbell	Ft. Union Formation
ERP00358	E-217292	638B	Wyoming	Campbell	Ft. Union Formation
ERP00358	E-217293	638C	Wyoming	Campbell	Ft. Union Formation
ERP00358	E-217294	545	Wyoming	Campbell	Ft. Union Formation
ERP00358	E-217295	546	Wyoming	Campbell	Ft. Union Formation
ERP00358	E-217296	550	Wyoming	Campbell	Ft. Union Formation
ERP00358	E-217297	551	Wyoming	Campbell	Ft. Union Formation
ERP00358	E-217298	552	Wyoming	Campbell	Ft. Union Formation
ERP00358	E-217299	81402A	Wyoming	Converse	Ft. Union Formation
ERP00358	E-217300	81402B	Wyoming	Converse	Ft. Union Formation
ERP00358	E-217301	81402C	Wyoming	Converse	Ft. Union Formation
ERP00358	E-217302	81402D	Wyoming	Converse	Ft. Union Formation
ERP00358	E-217303	81402E	Wyoming	Converse	Ft. Union Formation
ERP00358	E-217304	81402F	Wyoming	Converse	Ft. Union Formation
ERP00358	E-217305	81402GHC	Wyoming	Converse	Ft. Union Formation
ERP00358	E-217306	81402HHC	Wyoming	Converse	Ft. Union Formation
ERP00358	E-217307	81402IHC	Wyoming	Converse	Ft. Union Formation
ERP00358	E-217308	81402JHC	Wyoming	Converse	Ft. Union Formation
ERP00358	E-217309	81402KHC	Wyoming	Converse	Ft. Union Formation
ERP00358	E-217310	81402LHC	Wyoming	Converse	Ft. Union Formation
ERP00358	E-217311	81402C3UPPER	Wyoming	Campbell	Ft. Union Formation
ERP00358	E-217312	81402UPPER44	Wyoming	Campbell	Ft. Union Formation
ERP00358	E-217313	81402C1-2	Wyoming	Campbell	Ft. Union Formation
ERP00358	E-217314	81402MIDDLE	Wyoming	Campbell	Ft. Union Formation

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Job number	Laboratory number	Field number	State	County	Formation
ERP00358	E-217315	546 dup	Wyoming	Campbell	Ft. Union Formation
ERP00358	E-217316	637 dup	Wyoming	Campbell	Ft. Union Formation
Rocky Mountain Province					
ERP00404	E-224222	717JB1	Wyoming	Sweetwater	Ft. Union Formation
ERP00404	E-224223	717JB2	Wyoming	Sweetwater	Ft. Union Formation
ERP00404	E-224224	717JB3	Wyoming	Sweetwater	Ft. Union Formation
ERP00404	E-224225	717JB4	Wyoming	Sweetwater	Ft. Union Formation
ERP00404	E-224226	717JB5	Wyoming	Sweetwater	Ft. Union Formation
ERP00404	E-224227	717155A	Wyoming	Lincoln	Adaville Formation
ERP00404	E-224228	717155B	Wyoming	Lincoln	Adaville Formation
ERP00404	E-224229	717155C	Wyoming	Lincoln	Adaville Formation
ERP00404	E-224230	717155D	Wyoming	Lincoln	Adaville Formation
ERP00404	E-224231	717365A	Wyoming	Lincoln	Adaville Formation
ERP00404	E-224232	717365B	Wyoming	Lincoln	Adaville Formation
ERP00150	E-186364	19117-SF-1	Colorado	Fremont	Vermejo Formation
ERP00150	E-186365	19118-SF-2	Colorado	Fremont	Vermejo Formation
ERP00150	E-186366	19119-SF-3	Colorado	Fremont	Vermejo Formation
ERP00150	E-186367	19120-SF-4	Colorado	Fremont	Vermejo Formation
ERP00150	E-186368	19324-NH-1	Colorado	Montrose	Dakota Sandstone
ERP00150	E-186369	19326-NH-2	Colorado	Montrose	Dakota Sandstone
ERP00150	E-186370	19328-NH-3	Colorado	Montrose	Dakota Sandstone
ERP00150	E-186371	19330-NH-4	Colorado	Montrose	Dakota Sandstone
ERP00150	E-186372	19332-KC-1	Colorado	La Plata	Menefee Formation
ERP00150	E-186373	19334-KC-2	Colorado	La Plata	Menefee Formation
ERP00150	E-186374	19336-KC-3	Colorado	La Plata	Menefee Formation

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Job number	Laboratory number	Field number	State	County	Formation
ERP00150	E-186375	19338-T-1	Colorado	Routt	Williams Fork Formation
ERP00150	E-186376	19340-T-2	Colorado	Routt	Williams Fork Formation
ERP00150	E-186377	19342-W-ROM	Colorado	Routt	Williams Fork Formation
ERP00150	E-186378	19344-S2W-A	Colorado	Routt	Williams Fork Formation
ERP00150	E-186379	19347-Y-1	Colorado	Routt	Williams Fork Formation
ERP00150	E-186380	20473-SC-1	Colorado	Delta	Mesaverde Fm., Bowie Shale Mer
ERP00150	E-186381	20474-TREA-H	Colorado	Moffat	Williams Fork Formation
ERP00150	E-186382	20475-TR-H-M	Colorado	Moffat	Williams Fork Formation
ERP00150	E-186383	20476-DS1-RM	Colorado	Rio Blanco	Mesaverde Formation
ERP00150	E-186384	20477-DS-1-S	Colorado	Rio Blanco	Mesaverde Formation
ERP00150	E-186385	20478-MC1-RM	Colorado	Garfield	Mesaverde Formation
ERP00150	E-186386	20479-BW1-CH	Colorado	Delta	Mesaverde Fm., Bowie Shale Mer
ERP00150	E-186387	20480-BW1-S	Colorado	Delta	Mesaverde Fm., Bowie Shale Mer
ERP00188	E-190603	TR-DR1-QU	Colorado	Moffat	Williams Fork Formation
ERP00188	E-190604	TR-DR2-QM	Colorado	Moffat	Williams Fork Formation
ERP00188	E-190605	Trapper-ROM	Colorado	Moffat	Williams Fork Formation
ERP00188	E-190606	CWO-W-CH	Colorado	Moffat	Williams Fork Formation
ERP00188	E-190607	CWO-ROM	Colorado	Moffat	Williams Fork Formation
ERP00188	E-190608	1-WE-Sales	Colorado	Gunnison	Mesaverde Formation
ERP00188	E-190609	San1-KC	Colorado	La Plata	Menefee Formation
ERP00188	E-190610	San2-NH	Colorado	Montrose	Dakota Sandstone
ERP00188	E-190611	San3-BW2	Colorado	Delta	Mesaverde Fm., Bowie Shale Mer
ERP00188	E-190612	San4-WE	Colorado	Gunnison	Mesaverde Formation
ERP00188	E-190613	San5-SB	Colorado	Delta	Mesaverde Fm., Bowie Shale Mer
ERP00188	E-190614	San6-MC	Colorado	Garfield	Mesaverde Formation
ERP00188	E-190615	Sen2W-01-ROM	Colorado	Routt	Williams Fork Formation
ERP00188	E-190616	Y-01-ROM	Colorado	Routt	Williams Fork Formation

Table 2. -- Contents of major and minor oxides in 525ºC ash for 729 National Coal Quality Inventory
[blank space indicates no data or not analyzed]

Job number	Laboratory number	Field number	State	County	Formation
ERP00188	E-190617	FC-01-ROM	Colorado	Routt	Williams Fork Formation
ERP00276	E-203760	20451	Colorado	Gunnison	Mesaverde Formation
ERP00276	E-203761	WEM MCC	Colorado	Gunnison	Mesaverde Formation
ERP00276	E-203762	DES-01-01	Colorado	Rio Blanco	Mesaverde Formation
ERP00276	E-203763	DES-02-01	Colorado	Rio Blanco	Mesaverde Formation
ERP00276	E-203764	DES-03-01	Colorado	Rio Blanco	Mesaverde Formation
ERP00276	E-203765	CWO-01-01	Colorado	Moffat	Williams Fork Formation, C seam
ERP00276	E-203766	CWO-02-01	Colorado	Moffat	Williams Fork Formation, D seam
ERP00276	E-203767	CWO-03-01	Colorado	Moffat	Williams Fork Formation, F seam
ERP00276	E-203768	CWO-04-01	Colorado	Moffat	Williams Fork Formation, X seam
ERP00276	E-203769	CWO-05-01	Colorado	Moffat	Williams Fork Formation, B seam
ERP00276	E-203770	CWO-06-01	Colorado	Moffat	Williams Fork Formation, X bed
ERP00276	E-203771	CWO-07-01	Colorado	Moffat	Williams Fork Formation, F bed
ERP00276	E-203772	TRDR-RCHAN	Colorado	Moffat	Williams Fork Formation
ERP00276	E-203773	TRDR-QROM	Colorado	Moffat	Williams Fork Formation
ERP00276	E-203774	LOR-M-01-02	Colorado	Las Animas	Raton Formation
ERP00276	E-203775	LOR-NA-01-02	Colorado	Las Animas	Raton Formation
ERP00276	E-203776	WEM MCC2	Colorado	Gunnison	Mesaverde Formation
Interior Province					
EA52	E-000990	96-C-1H	Oklahoma	Rogers	Senora Formation
EA52	E-000991	96-C-3H	Oklahoma	Nowata	Senora Formation
EA52	E-000992	96-C-4H	Oklahoma	Craig	Senora Formation
ERP00113	E-177446	OKLA-1	Oklahoma	Okmulgee	Senora Formation
ERP00141	E-186010	OPL1143	Oklahoma	Haskell	McAlester Formation
ERP00141	E-186011	OPL1144	Oklahoma	LeFlore	Hartshorne Sandstone

Table 2. -- Contents of major and minor oxides in 525ºC ash for 729 National Coal Quality Inventory
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Job number	Laboratory number	Field number	State	County	Formation
ERP00449	E-242780	OPL-1183	Oklahoma	Nowata	Senora Formation
ERP00449	E-242781	OPL-1184	Oklahoma	Craig	Senora Formation
EA05	E-000037	C34943	Illinois	Vermilion	Carbondale Formation
EB71	E-003207	C33863	Illinois	Douglas	Carbondale Formation
EB71	E-003208	C33864	Illinois	Douglas	Carbondale Formation
EB71	E-003209	C33865	Illinois	Douglas	Carbondale Formation
ERP00048	E-138332	C36488	Illinois	Jackson	Tradewater Formation
ERP00048	E-138333	C36489	Illinois	Jackson	Tradewater Formation
ERP00048	E-138334	C36490	Illinois	Jackson	Tradewater Formation
ERP00048	E-138335	C36491	Illinois	Gallatin	Carbondale Formation
ERP00048	E-138336	C36492	Illinois	Gallatin	Carbondale Formation
ERP00048	E-138337	C36493	Illinois	Gallatin	Carbondale Formation
ERP00048	E-138338	C36494	Illinois	Jackson	Carbondale Formation
EB71	E-003186	98126-1	Indiana	Posey	Dugger Formation
EB71	E-003187	98126-2	Indiana	Posey	Dugger Formation
EB71	E-003188	98126-3	Indiana	Posey	Dugger Formation
EB71	E-003189	98126-4	Indiana	Posey	Petersburg Formation
EB71	E-003190	98126-5	Indiana	Posey	Petersburg Formation
EB71	E-003191	98126-6	Indiana	Posey	Petersburg Formation
EB71	E-003192	98126-7	Indiana	Posey	Petersburg Formation
EB71	E-003193	98126-8	Indiana	Posey	Staunton Formation
EB71	E-003194	98126-9	Indiana	Posey	Staunton Formation
EB71	E-003195	98126-10	Indiana	Posey	Staunton Formation
EB71	E-003196	98126-11	Indiana	Posey	Staunton Formation
EB71	E-003197	98126-12	Indiana	Posey	Brazil Formation
EB71	E-003198	98126-13	Indiana	Posey	uncorrelated
EB71	E-003199	98126-14	Indiana	Posey	uncorrelated

Table 2. -- Contents of major and minor oxides in 525ºC ash for 729 National Coal Quality Inventory
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Job number	Laboratory number	Field number	State	County	Formation
EB71	E-003200	98126-15	Indiana	Posey	uncorrelated
EB71	E-003201	98126-16	Indiana	Posey	uncorrelated
EB71	E-003202	98126-17	Indiana	Posey	uncorrelated
EB71	E-003203	98126-18	Indiana	Posey	uncorrelated
EB71	E-003204	98126-19	Indiana	Posey	uncorrelated
EB71	E-003205	98126-20	Indiana	Posey	uncorrelated
EB71	E-003206	98126-21	Indiana	Posey	uncorrelated
ERP00238	E-200392	980813B1	Indiana	Clay	Brazil Formation
ERP00238	E-200393	980813B2	Indiana	Clay	Brazil Formation
ERP00238	E-200394	980813B3	Indiana	Clay	Brazil Formation
ERP00238	E-200395	981130A1	Indiana	Greene	Brazil Formation
ERP00238	E-200396	981130A2	Indiana	Greene	Brazil Formation
ERP00238	E-200397	981130A3	Indiana	Greene	Brazil Formation
ERP00238	E-200398	981130A4	Indiana	Greene	Brazil Formation
ERP00238	E-200399	981207A1	Indiana	Greene	Brazil Formation
ERP00238	E-200400	981207A2	Indiana	Greene	Brazil Formation
ERP00238	E-200401	981207A3	Indiana	Greene	Brazil Formation
ERP00238	E-200402	981207A4	Indiana	Greene	Brazil Formation
ERP00238	E-200403	981207B1	Indiana	Greene	Brazil Formation
ERP00238	E-200404	981207B2	Indiana	Greene	Brazil Formation
ERP00238	E-200405	981207B4	Indiana	Greene	Brazil Formation
ERP00238	E-200406	10803A1,0-63	Indiana	Parke	Brazil Formation
ERP00238	E-200407	10803A1,1.6	Indiana	Parke	Brazil Formation
ERP00238	E-200408	10803A2,63-94	Indiana	Parke	Brazil Formation
ERP00238	E-200409	10803A2,1.6	Indiana	Parke	Brazil Formation
ERP00238	E-200410	10803A3,94-131	Indiana	Parke	Brazil Formation
ERP00238	E-200411	10803A3,1.6	Indiana	Parke	Brazil Formation

Table 2. -- Contents of major and minor oxides in 525ºC ash for 729 National Coal Quality Inventory
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Job number	Laboratory number	Field number	State	County	Formation
ERP00238	E-200412	10803B1,0-28	Indiana	Parke	Brazil Formation
ERP00238	E-200413	10803B1,1.6	Indiana	Parke	Brazil Formation
ERP00238	E-200414	10803B2,28-53	Indiana	Parke	Brazil Formation
ERP00238	E-200415	10803B2,1.6	Indiana	Parke	Brazil Formation
ERP00238	E-200416	10803B3,53-73	Indiana	Parke	Brazil Formation
ERP00238	E-200417	10803B3,1.6	Indiana	Parke	Brazil Formation
ERP00238	E-200418	10724C1,0-33	Indiana	Sullivan	Dugger Formation
ERP00238	E-200419	10724C1,1.5	Indiana	Sullivan	Dugger Formation
ERP00238	E-200420	10724C2,33-69	Indiana	Sullivan	Dugger Formation
ERP00238	E-200421	10724C2,1.5	Indiana	Sullivan	Dugger Formation
ERP00238	E-200422	10724C3,69-96	Indiana	Sullivan	Dugger Formation
ERP00238	E-200423	10724C3,1.5	Indiana	Sullivan	Dugger Formation
ERP00238	E-200424	10724C4,96-117	Indiana	Sullivan	Dugger Formation
ERP00238	E-200425	10724C4,1.5	Indiana	Sullivan	Dugger Formation
ERP00238	E-200426	981130A3D	Indiana	Greene	Brazil Formation
ERP00238	E-200427	10803A1,1.6D	Indiana	Parke	Brazil Formation
ERP00238	E-200428	10803B3,1.6D	Indiana	Parke	Brazil Formation
ERP00239	E-200429	10724B1,0-34	Indiana	Sullivan	Dugger Formation
ERP00239	E-200430	10724B1,1.5	Indiana	Sullivan	Dugger Formation
ERP00239	E-200431	10724B2,34-70	Indiana	Sullivan	Dugger Formation
ERP00239	E-200432	10724B2,1.5	Indiana	Sullivan	Dugger Formation
ERP00239	E-200433	10724B3,70-93	Indiana	Sullivan	Dugger Formation
ERP00239	E-200434	10724B3,1.5	Indiana	Sullivan	Dugger Formation
ERP00239	E-200435	107241,0-34	Indiana	Sullivan	Dugger Formation
ERP00239	E-200436	107241,1.5	Indiana	Sullivan	Dugger Formation
ERP00239	E-200437	107242,34-63	Indiana	Sullivan	Dugger Formation
ERP00239	E-200438	107242,1.5	Indiana	Sullivan	Dugger Formation

Table 2. -- Contents of major and minor oxides in 525ºC ash for 729 National Coal Quality Inventory
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Job number	Laboratory number	Field number	State	County	Formation
ERP00239	E-200439	107243,65-97	Indiana	Sullivan	Dugger Formation
ERP00239	E-200440	107243,1.5	Indiana	Sullivan	Dugger Formation
ERP00239	E-200441	11006A1,0-15	Indiana	Knox	Dugger Formation
ERP00239	E-200442	11006A1,1.6	Indiana	Knox	Dugger Formation
ERP00239	E-200443	11006A2,15-43	Indiana	Knox	Dugger Formation
ERP00239	E-200444	11006A2,1.6	Indiana	Knox	Dugger Formation
ERP00239	E-200445	11006A3,43-103	Indiana	Knox	Dugger Formation
ERP00239	E-200446	11006A3,1.6	Indiana	Knox	Dugger Formation
ERP00239	E-200447	11006A4,103-148	Indiana	Knox	Dugger Formation
ERP00239	E-200448	11006A4, 1.6	Indiana	Knox	Dugger Formation
ERP00239	E-200449	11006AQ, MTRaw	Indiana	Knox	Dugger Formation
ERP00239	E-200450	11006AQ, MT1.6	Indiana	Knox	Dugger Formation
ERP00239	E-200451	11027A1,0-22	Indiana	Spencer	Mansfield Formation
ERP00239	E-200452	11027A1,1.6	Indiana	Spencer	Mansfield Formation
ERP00239	E-200453	11027A2,22-42	Indiana	Spencer	Mansfield Formation
ERP00239	E-200454	11027A2,1.6	Indiana	Spencer	Mansfield Formation
ERP00239	E-200455	11027A3,44-68	Indiana	Spencer	Mansfield Formation
ERP00239	E-200456	11027A3,1.6	Indiana	Spencer	Mansfield Formation
ERP00239	E-200457	11106A1,0-24	Indiana	Spencer	Brazil Formation
ERP00239	E-200458	11106A1,1.6	Indiana	Spencer	Brazil Formation
ERP00239	E-200459	11106A2,24-47	Indiana	Spencer	Brazil Formation
ERP00239	E-200460	11106A2,1.6	Indiana	Spencer	Brazil Formation
ERP00239	E-200461	11106A3,47-57	Indiana	Spencer	Brazil Formation
ERP00239	E-200462	11106A3,1.6	Indiana	Spencer	Brazil Formation
ERP00239	E-200463	11106A4,57-77	Indiana	Spencer	Brazil Formation
ERP00239	E-200464	11106A4,1.6	Indiana	Spencer	Brazil Formation
ERP00239	E-200465	11106A1,1.6D	Indiana	Spencer	Brazil Formation

Table 2. -- Contents of major and minor oxides in 525ºC ash for 729 National Coal Quality Inventory
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Job number	Laboratory number	Field number	State	County	Formation
ERP00239	E-200466	10724B2,34-70D	Indiana	Sullivan	Dugger Formation
ERP00239	E-200467	107242,1.5D	Indiana	Sullivan	Dugger Formation
ERP00255	E-201895	10807A1	Indiana	Greene	Brazil Formation
ERP00255	E-201896	10807A1,1.6	Indiana	Greene	Brazil Formation
ERP00255	E-201897	10807A2	Indiana	Greene	Brazil Formation
ERP00255	E-201898	10807A2,1.6	Indiana	Greene	Brazil Formation
ERP00255	E-201899	10807A3	Indiana	Greene	Brazil Formation
ERP00255	E-201900	10807A3,1.6	Indiana	Greene	Brazil Formation
ERP00255	E-201901	10807B1	Indiana	Greene	Mansfield Formation
ERP00255	E-201902	10807B1,1.6	Indiana	Greene	Mansfield Formation
ERP00255	E-201903	10807B2	Indiana	Greene	Mansfield Formation
ERP00255	E-201904	10807B2,1.6	Indiana	Greene	Mansfield Formation
ERP00255	E-201905	10807B3	Indiana	Greene	Mansfield Formation
ERP00255	E-201906	10807B3,1.6	Indiana	Greene	Mansfield Formation
ERP00255	E-201907	10807B4	Indiana	Greene	Mansfield Formation
ERP00255	E-201908	10807B4,1.6	Indiana	Greene	Mansfield Formation
ERP00255	E-201909	CulleyMillB3	Indiana	Spencer	
ERP00255	E-201910	CulleyMillC3	Indiana	Spencer	
ERP00255	E-201911	CulleyMillE3	Indiana	Spencer	
ERP00255	E-201912	CulleyMillB2	Indiana	Spencer	
ERP00255	E-201913	CulleyMillA2	Indiana	Spencer	
ERP00255	E-201914	GEboiler1	Indiana	Knox	
ERP00255	E-201915	GEboiler2	Indiana	Knox	
ERP00255	E-201916	AQProduct	Indiana	Knox	
ERP00255	E-201917	11113A1	Indiana	Warrick	Petersburg Formation
ERP00255	E-201918	11113A1,1.5	Indiana	Warrick	Petersburg Formation
ERP00255	E-201919	11113A2	Indiana	Warrick	Petersburg Formation

Table 2. -- Contents of major and minor oxides in 525ºC ash for 729 National Coal Quality Inventory
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Job number	Laboratory number	Field number	State	County	Formation
ERP00255	E-201920	11113A2,1.5	Indiana	Warrick	Petersburg Formation
ERP00255	E-201921	11113A4	Indiana	Warrick	Petersburg Formation
ERP00255	E-201922	11113A4,1.5	Indiana	Warrick	Petersburg Formation
ERP00255	E-201923	11113A5	Indiana	Warrick	Petersburg Formation
ERP00255	E-201924	11113A5,1.5	Indiana	Warrick	Petersburg Formation
ERP00255	E-201925	11113A6	Indiana	Warrick	Petersburg Formation
ERP00255	E-201926	11113A6,1.5	Indiana	Warrick	Petersburg Formation
ERP00255	E-201927	10807A2D	Indiana	Greene	Brazil Formation
ERP00255	E-201928	11113A4D	Indiana	Warrick	Petersburg Formation
ERP00256	E-201929	GEboiler2-2	Indiana	Knox	
ERP00256	E-201930	GEboiler2-4	Indiana	Knox	
ERP00256	E-201931	GEboiler2-6	Indiana	Knox	
ERP00256	E-201932	GEboiler2-8	Indiana	Knox	
ERP00256	E-201933	GEboiler1-1	Indiana	Knox	
ERP00256	E-201934	GEboiler1-3	Indiana	Knox	
ERP00256	E-201935	GEboiler1-5	Indiana	Knox	
ERP00256	E-201936	GEboiler1-7	Indiana	Knox	
ERP00256	E-201937	Geunit1-rph	Indiana	Knox	
ERP00256	E-201938	CulleyUnit3E	Indiana	Spencer	
ERP00256	E-201939	CulleyUnit3W	Indiana	Spencer	
ERP00256	E-201940	CulleyUnit2E	Indiana	Spencer	
ERP00256	E-201941	Culley2+3FGD	Indiana	Spencer	
ERP00256	E-201942	GEboiler2-4D	Indiana	Knox	
ERP00277	E-203777	10803C1,0-30	Indiana	Clay	Brazil Formation
ERP00277	E-203778	10803C1,1.6	Indiana	Clay	Brazil Formation
ERP00277	E-203779	10803C2,30-52	Indiana	Clay	Brazil Formation
ERP00277	E-203780	10803C2,1.6	Indiana	Clay	Brazil Formation

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Job number	Laboratory number	Field number	State	County	Formation
ERP00277	E-203781	10803C3,52-86	Indiana	Clay	Brazil Formation
ERP00277	E-203782	10803C3,1.6	Indiana	Clay	Brazil Formation
ERP00277	E-203783	10803C4,86-110	Indiana	Clay	Brazil Formation
ERP00277	E-203784	10803C4,1.6	Indiana	Clay	Brazil Formation
ERP00277	E-203785	10724D1,0-26	Indiana	Clay	Mansfield Formation
ERP00277	E-203786	10724D1,1.5	Indiana	Clay	Mansfield Formation
ERP00277	E-203787	10724D2,26-48	Indiana	Clay	Mansfield Formation
ERP00277	E-203788	10724D2,1.5	Indiana	Clay	Mansfield Formation
ERP00277	E-203789	10724D3,50-62	Indiana	Clay	Mansfield Formation
ERP00277	E-203790	10724D3,1.5	Indiana	Clay	Mansfield Formation
ERP00277	E-203791	10803C1,0-30D	Indiana	Clay	Brazil Formation
ERP00313	E-209604	205241 0-27	Indiana	Gibson	Dugger Formation
ERP00313	E-209605	205241 Float	Indiana	Gibson	Dugger Formation
ERP00313	E-209606	205242 27-61	Indiana	Gibson	Dugger Formation
ERP00313	E-209607	205242 Float	Indiana	Gibson	Dugger Formation
ERP00313	E-209608	205243 61-89	Indiana	Gibson	Dugger Formation
ERP00313	E-209609	205243 Float	Indiana	Gibson	Dugger Formation
ERP00313	E-209610	20524FC 0-89	Indiana	Gibson	Dugger Formation
ERP00313	E-209611	20524FC Float	Indiana	Gibson	Dugger Formation
ERP00313	E-209612	205291 0-33	Indiana	Gibson	Petersburg Formation
ERP00313	E-209613	205291 Float	Indiana	Gibson	Petersburg Formation
ERP00313	E-209614	205292 33-74	Indiana	Gibson	Petersburg Formation
ERP00313	E-209615	205292 Float	Indiana	Gibson	Petersburg Formation
ERP00313	E-209616	205293 74-103	Indiana	Gibson	Petersburg Formation
ERP00313	E-209617	205293 Float	Indiana	Gibson	Petersburg Formation
ERP00313	E-209618	205294 103-143	Indiana	Gibson	Petersburg Formation
ERP00313	E-209619	205294 Float	Indiana	Gibson	Petersburg Formation

Table 2. -- Contents of major and minor oxides in 525ºC ash for 729 National Coal Quality Inventory
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Job number	Laboratory number	Field number	State	County	Formation
ERP00313	E-209620	20524FC FloatD	Indiana	Gibson	Dugger Formation
ERP00313	E-209621	205294 103-143D	Indiana	Gibson	Petersburg Formation
ERP00426	E-229090	20031009-1R	Indiana	Gibson	Petersburg Formation
ERP00426	E-229091	20031009-1F	Indiana	Gibson	Petersburg Formation
ERP00426	E-229092	20031009-2R	Indiana	Gibson	Petersburg Formation
ERP00426	E-229093	20031009-2F	Indiana	Gibson	Petersburg Formation
ERP00426	E-229094	20031009-3R	Indiana	Gibson	Petersburg Formation
ERP00426	E-229095	20031009-3F	Indiana	Gibson	Petersburg Formation
ERP00426	E-229096	20031009-4R	Indiana	Gibson	Petersburg Formation
ERP00426	E-229097	20031009-4F	Indiana	Gibson	Petersburg Formation
ERP00426	E-229098	20030214-1	Indiana	Knox	Dugger Formation
ERP00426	E-229099	20030214-2	Indiana	Knox	Dugger Formation
ERP00426	E-229100	20030214-3	Indiana	Knox	Dugger Formation
ERP00426	E-229101	20030214-4	Indiana	Knox	Dugger Formation
ERP00426	E-229102	20030321-A1	Indiana	Daviess	Brazil Formation
ERP00426	E-229103	20030321-A2	Indiana	Daviess	Brazil Formation
ERP00426	E-229104	20030321-A3	Indiana	Daviess	Brazil Formation
ERP00426	E-229105	20030321-A4	Indiana	Daviess	Brazil Formation
ERP00426	E-229106	20030321-B1	Indiana	Daviess	Brazil Formation
ERP00426	E-229107	20030321-B2	Indiana	Daviess	Brazil Formation
ERP00426	E-229108	20030321-B3	Indiana	Daviess	Brazil Formation
ERP00426	E-229109	20030321-B4	Indiana	Daviess	Brazil Formation
ERP00426	E-229110	20030321-C1	Indiana	Daviess	Brazil Formation
ERP00426	E-229111	20030321-C2	Indiana	Daviess	Brazil Formation
ERP00426	E-229113	20030321-C4	Indiana	Daviess	Brazil Formation
ERP00426	E-229114	20030321-C5	Indiana	Daviess	Brazil Formation
ERP00434	E-230453	20031028D-1R	Indiana	Gibson	Petersburg Formation

Table 2. -- Contents of major and minor oxides in 525ºC ash for 729 National Coal Quality Inventory
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Job number	Laboratory number	Field number	State	County	Formation
ERP00434	E-230454	20031028D-1F	Indiana	Gibson	Petersburg Formation
ERP00434	E-230455	20031028D-2R	Indiana	Gibson	Petersburg Formation
ERP00434	E-230456	20031028D-2F	Indiana	Gibson	Petersburg Formation
ERP00434	E-230457	20031028D-3R	Indiana	Gibson	Petersburg Formation
ERP00434	E-230458	20031028D-3F	Indiana	Gibson	Petersburg Formation
ERP00434	E-230459	20031028D-4R	Indiana	Gibson	Petersburg Formation
ERP00434	E-230460	20031028D-4F	Indiana	Gibson	Petersburg Formation
ERP00434	E-230461	2698001-R	Indiana	Gibson	Staunton Formation
ERP00434	E-230462	2698002-F	Indiana	Gibson	Staunton Formation
ERP00434	E-230463	2698004-R	Indiana	Gibson	Staunton Formation
ERP00434	E-230464	2698005-F	Indiana	Gibson	Staunton Formation
ERP00434	E-230465	2698007-R	Indiana	Gibson	Staunton Formation
ERP00434	E-230466	2698008-F	Indiana	Gibson	Staunton Formation
ERP00434	E-230467	2698010-R	Indiana	Gibson	Staunton Formation
ERP00434	E-230468	2698011-F	Indiana	Gibson	Staunton Formation
ERP00434	E-230469	2698013-R	Indiana	Gibson	Staunton Formation
ERP00434	E-230470	2698014-F	Indiana	Gibson	Staunton Formation
ERP00434	E-230471	2698016-R	Indiana	Gibson	Staunton Formation
ERP00434	E-230472	2698017-F	Indiana	Gibson	Staunton Formation
ERP00434	E-230473	2698019-R	Indiana	Gibson	Staunton Formation
ERP00434	E-230474	2698020-F	Indiana	Gibson	Staunton Formation
ERP00434	E-230475	2698022-R	Indiana	Gibson	Staunton Formation
ERP00434	E-230476	2698023-F	Indiana	Gibson	Staunton Formation
ERP00434	E-230477	20031028A-1R	Indiana	Gibson	Dugger Formation
ERP00434	E-230478	20031028A-1F	Indiana	Gibson	Dugger Formation
ERP00434	E-230479	20031028A-2R	Indiana	Gibson	Dugger Formation
ERP00434	E-230480	20031028A-2F	Indiana	Gibson	Dugger Formation

Table 2. -- Contents of major and minor oxides in 525ºC ash for 729 National Coal Quality Inventory
[blank space indicates no data or not analyzed]

Job number	Laboratory number	Field number	State	County	Formation
ERP00434	E-230481	20031028A-3R	Indiana	Gibson	Dugger Formation
ERP00434	E-230482	20031028A-3F	Indiana	Gibson	Dugger Formation
ERP00434	E-230483	20031028B-1R	Indiana	Gibson	Dugger Formation
ERP00434	E-230484	20031028B-1F	Indiana	Gibson	Dugger Formation
ERP00434	E-230485	20031028B-2R	Indiana	Gibson	Dugger Formation
ERP00434	E-230486	20031028B-2F	Indiana	Gibson	Dugger Formation
ERP00434	E-230487	20031028B-3R	Indiana	Gibson	Dugger Formation
ERP00434	E-230488	20031028B-3F	Indiana	Gibson	Dugger Formation
ERP00434	E-230489	20031028B-4R	Indiana	Gibson	Dugger Formation
ERP00434	E-230490	20031028B-4F	Indiana	Gibson	Dugger Formation
ERP00434	E-230491	20031028C	Indiana	Gibson	Shelburn Formation
ERP00434	E-230492	20031028C	Indiana	Gibson	Shelburn Formation
ERP00650	06500001	BigRun1	Kentucky	Ohio	Unknown
ERP00650	06500002	DC0410WKY10	Kentucky	Webster	Carbondale Formation
ERP00650	06500003	DC0410WKY13Ba	Kentucky	Webster	Shelburn Formation
ERP00650	06500004	DC0410WKY9A	Kentucky	Webster	Carbondale Formation
ERP00650	06500005	DC0410WKY9B	Kentucky	Webster	Carbondale Formation
ERP00650	06500006	DC0410WKY9C	Kentucky	Webster	Carbondale Formation
ERP00650	06500007	DC0410WKY9RR	Kentucky	Webster	Carbondale Formation
ERP00650	06500008	DC049WKY10	Kentucky	Webster	Carbondale Formation
ERP00650	06500009	DC049WKY13A	Kentucky	Webster	Shelburn Formation
ERP00650	06500010	DC049WKY13B	Kentucky	Webster	Shelburn Formation
ERP00650	06500011	DC049WKY13C	Kentucky	Webster	Shelburn Formation
ERP00650	06500012	DC049WKY9A	Kentucky	Webster	Carbondale Formation
ERP00650	06500013	DC049WKY9B	Kentucky	Webster	Carbondale Formation
ERP00650	06500014	DC049WKY9C	Kentucky	Webster	Carbondale Formation
ERP00650	06500015	DC049WKY9RR	Kentucky	Webster	Carbondale Formation

Table 2. -- Contents of major and minor oxides in 525ºC ash for 729 National Coal Quality Inventory
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Job number	Laboratory number	Field number	State	County	Formation
ERP00650	06500016	P42WKY6Davis	Kentucky	Hopkins	Carbondale Formation
ERP00650	06500017	P42WKY6DavisRF	Kentucky	Hopkins	Carbondale Formation
ERP00650	06500018	P42WKY8B1	Kentucky	Hopkins	Carbondale Formation
ERP00650	06500019	P42WKY8B2	Kentucky	Hopkins	Carbondale Formation
ERP00650	06500020	P42WKY9A	Kentucky	Hopkins	Carbondale Formation
ERP00650	06500021	P42WKY9B	Kentucky	Hopkins	Carbondale Formation
ERP00650	06500022	P42WKY9C	Kentucky	Hopkins	Carbondale Formation
ERP00650	06500023	P42WKY9RR	Kentucky	Hopkins	Carbondale Formation
ERP00650	06500024	P42WKYColch	Kentucky	Hopkins	Carbondale Formation
ERP00650	06500025	P42WKYColchRR	Kentucky	Hopkins	Carbondale Formation
ERP00650	06500026	P42WKY11A	Kentucky	Hopkins	Shelburn Formation
ERP00650	06500027	P42WKY11B	Kentucky	Hopkins	Shelburn Formation
ERP00650	06500028	P42WKY11C	Kentucky	Hopkins	Shelburn Formation
ERP00650	06500029	P42WKY11D	Kentucky	Hopkins	Shelburn Formation
Eastern Province					
ERP00249	E-201622	92789C	Kentucky	Pulaski	
ERP00249	E-201623	92790C	Kentucky	Pulaski	
ERP00249	E-201624	92807C	Kentucky	Pulaski	
ERP00249	E-201625	92808C	Kentucky	Pulaski	
ERP00249	E-201626	92809C	Kentucky	Pulaski	
ERP00249	E-201627	92810C	Kentucky	Pulaski	
ERP00249	E-201628	92811C	Kentucky	Pulaski	
ERP00249	E-201629	92812C	Kentucky	Pulaski	
ERP00249	E-201630	5498C	Kentucky	Knox	Breathitt Formation
ERP00249	E-201631	5499C	Kentucky	Knox	Breathitt Formation

Table 2. -- Contents of major and minor oxides in 525ºC ash for 729 National Coal Quality Inventory
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Job number	Laboratory number	Field number	State	County	Formation
ERP00249	E-201632	5500C	Kentucky	Knox	Breathitt Formation
ERP00249	E-201633	5501C	Kentucky	Knox	Breathitt Formation
ERP00249	E-201634	5502C	Kentucky	Knox	Breathitt Formation
ERP00249	E-201635	5503C	Kentucky	Knox	Breathitt Formation
ERP00249	E-201636	5504C	Kentucky	Knox	Breathitt Formation
ERP00249	E-201637	92790D	Kentucky	Pulaski	
ERP00249	E-201638	5498D	Kentucky	Knox	Breathitt Formation
ERP00250	E-201639	92791A	Kentucky	Pulaski	
ERP00250	E-201640	92792A	Kentucky	Pulaski	
ERP00250	E-201641	92793A	Kentucky	Pulaski	
ERP00250	E-201642	92794A	Kentucky	Pulaski	
ERP00250	E-201643	92795A	Kentucky	Pulaski	
ERP00250	E-201644	92796A	Kentucky	Pulaski	
ERP00250	E-201645	92797A	Kentucky	Pulaski	
ERP00250	E-201646	92798A	Kentucky	Pulaski	
ERP00250	E-201647	92799A	Kentucky	Pulaski	
ERP00250	E-201648	92800A	Kentucky	Pulaski	
ERP00250	E-201649	92801A	Kentucky	Pulaski	
ERP00250	E-201650	92802A	Kentucky	Pulaski	
ERP00250	E-201651	92803A	Kentucky	Pulaski	
ERP00250	E-201652	92804A	Kentucky	Pulaski	
ERP00250	E-201653	92805A	Kentucky	Pulaski	
ERP00250	E-201654	92806A	Kentucky	Pulaski	
ERP00250	E-201655	92794D	Kentucky	Pulaski	
ERP00250	E-201656	92802D	Kentucky	Pulaski	
ERP00423	E-227705	PAS 1321-1	Pennsylvania	Elk	Allegheny Formation
ERP00423	E-227706	PAS 1321-2	Pennsylvania	Elk	Allegheny Formation

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Job number	Laboratory number	Field number	State	County	Formation
ERP00423	E-227707	PAS 1322	Pennsylvania	Elk	Allegheny Formation
ERP00423	E-227708	PAS 1400	Pennsylvania	Somerset	Allegheny Formation
ERP00423	E-227709	PAS 1401	Pennsylvania	Somerset	Allegheny Formation
ERP00423	E-227710	PAS 1402	Pennsylvania	Somerset	Allegheny Formation
ERP00423	E-227711	PAS 1403	Pennsylvania	Somerset	Allegheny Formation
ERP00423	E-227712	PAS 1404	Pennsylvania	Somerset	Allegheny Formation
ERP00423	E-227713	PAS 1405	Pennsylvania	Somerset	Monongahela Group
ERP00423	E-227714	PAS 1406	Pennsylvania	Somerset	Monongahela Group
ERP00423	E-227715	PAS 1407	Pennsylvania	Somerset	Allegheny Formation
ERP00423	E-227716	PAS 1408	Pennsylvania	Somerset	Allegheny Formation
ERP00423	E-227717	PAS 1409	Pennsylvania	Somerset	Monongahela Group
ERP00423	E-227718	PAS 1410	Pennsylvania	Somerset	Monongahela Group
ERP00423	E-227719	PAS 1411	Pennsylvania	Somerset	Allegheny Formation
ERP00423	E-227720	PAS 1412	Pennsylvania	Somerset	Allegheny Formation
ERP00423	E-227721	PAS 1413	Pennsylvania	Somerset	Allegheny Formation
ERP00423	E-227722	PAS 1414	Pennsylvania	Somerset	Allegheny Formation
ERP00423	E-227723	PAS 1415	Pennsylvania	Somerset	Allegheny Formation
ERP00423	E-227724	PAS 1416	Pennsylvania	Somerset	Allegheny Formation
ERP00423	E-227725	PAS 1417	Pennsylvania	Somerset	Monongahela Group
ERP00423	E-227726	PAS 1418	Pennsylvania	Somerset	Monongahela Group
ERP00423	E-227727	PAS 1419	Pennsylvania	Somerset	Allegheny Formation
ERP00427	E-229115	PAS 1420	Pennsylvania	Elk	Allegheny Formation
ERP00427	E-229116	PAS 1421	Pennsylvania	Elk	Allegheny Formation
ERP00427	E-229117	PAS 1422	Pennsylvania	Elk	Allegheny Formation
ERP00427	E-229118	PAS 1423	Pennsylvania	Elk	Allegheny Formation
ERP00427	E-229119	PAS 1424	Pennsylvania	Elk	Allegheny Formation
ERP00427	E-229120	PAS 1425	Pennsylvania	Washington	Monongahela Group

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Job number	Laboratory number	Field number	State	County	Formation
ERP00427	E-229121	PAS 1426	Pennsylvania	Washington	Monongahela Group
ERP00427	E-229122	PAS 1427	Pennsylvania	Washington	Monongahela Group
ERP00427	E-229123	PAS 1428	Pennsylvania	Washington	Monongahela Group
ERP00427	E-229124	PAS 1429	Pennsylvania	Washington	Monongahela Group
ERP00424	E-227728	DUN-413	Tennessee	Anderson	Breathitt Formation
ERP00424	E-227729	EAG-68	Tennessee	Claiborne	Breathitt Formation
ERP00424	E-227730	NEM-2041	Tennessee	Fentress	Lee Formation
ERP00424	E-227731	PEW-2438	Tennessee	Scott	Breathitt Formation
ERP00424	E-227732	RICH-51	Tennessee	Cumberland	Lee Formation
ERP00424	E-227733	CAR-0315	Tennessee	Morgan	Lee Formation
ERP00424	E-227734	WAL-2182	Tennessee	Scott	Breathitt Formation
ERP00424	E-227735	STR-1389	Tennessee	Claiborne	Breathitt Formation
ERP00424	E-227736	EAG-96S TOP	Tennessee	Claiborne	Breathitt Formation
ERP00424	E-227737	EAG-96S BTM	Tennessee	Claiborne	Breathitt Formation
ERP00063	E-141556	WVGS#18883	West Virginia	Marion	Monongahela Group
ERP00063	E-141557	WVGS#18493	West Virginia	Boone	Allegheny Formation
ERP00063	E-141558	WVGS#18505	West Virginia	Boone	Allegheny Formation
ERP00063	E-141559	WVGS#18471	West Virginia	Boone	Allegheny Formation
ERP00063	E-141560	WVGS#18485	West Virginia	Kanawha	Allegheny Formation
ERP00063	E-141561	WVGS#18879	West Virginia	Kanawha	Kanawha Formation
ERP00063	E-141562	WVGS#18882	West Virginia	Kanawha	Kanawha Formation
ERP00063	E-141563	WVGS#18881	West Virginia	Kanawha	Kanawha Formation
ERP00063	E-141564	WVGS#18919	West Virginia	Nicholas	Kanawha Formation
ERP00063	E-141565	WVGS#18852	West Virginia	Webster	Kanawha Formation
ERP00063	E-141566	WVGS#18854	West Virginia	Webster	Kanawha Formation
ERP00063	E-141567	WVGS#18245	West Virginia	Mingo	Kanawha Formation
ERP00063	E-141568	WVGS#18926	West Virginia	Nicholas	Kanawha Formation

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Job number	Laboratory number	Field number	State	County	Formation
ERP00063	E-141569	WVGS#18923	West Virginia	Nicholas	Kanawha Formation
ERP00063	E-141570	WVGS#18609	West Virginia	Boone	Kanawha Formation
ERP00063	E-141571	WVGS#18340	West Virginia	Kanawha	Kanawha Formation
ERP00063	E-141572	WVGS#18456	West Virginia	Kanawha	Kanawha Formation
ERP00063	E-141573	WVGS#18457	West Virginia	Kanawha	Kanawha Formation
ERP00063	E-141574	WVGS#18458	West Virginia	Kanawha	Kanawha Formation
ERP00063	E-141575	WVGS#18443	West Virginia	Kanawha	Kanawha Formation
ERP00063	E-141576	WVGS#18423	West Virginia	Wayne	Allegheny Formation
ERP00063	E-141577	WVGS#18436	West Virginia	Wayne	Allegheny Formation
ERP00063	E-141578	WVGS#18847	West Virginia	Webster	Kanawha Formation
ERP00063	E-141579	WVGS#18850	West Virginia	Webster	Kanawha Formation
ERP00063	E-141580	WVGS#18928	West Virginia	Nicholas	Kanawha Formation
ERP00063	E-141581	WVGS#18907	West Virginia	Nicholas	Kanawha Formation
ERP00063	E-141582	WVGS#18611	West Virginia	Boone	Kanawha Formation
ERP00063	E-141583	WVGS#18596	West Virginia	Boone	Kanawha Formation
ERP00063	E-141584	WVGS#18265	West Virginia	Mingo	Kanawha Formation
ERP00063	E-141585	WVGS#18300	West Virginia	Mingo	Allegheny Formation
ERP00063	E-141586	WVGS#18308	West Virginia	Mingo	Allegheny Formation
ERP00075	E-159650	WVGS#18858	West Virginia	Harrison	Monongahela Group
ERP00075	E-159651	WVGS#18855	West Virginia	Grant	Conemaugh Formation
ERP00075	E-159652	WVGS#18869	West Virginia	Preston	Allegheny Formation
ERP00075	E-159653	WVGS#1184	West Virginia	Fayette	Allegheny Formation
ERP00075	E-159654	WVGS#18218	West Virginia	Mingo	Allegheny Formation
ERP00075	E-159655	WVGS#18327	West Virginia	Kanawha	Kanawha Formation
ERP00075	E-159656	WVGS#11497	West Virginia	Raleigh	Kanawha Formation
ERP00075	E-159657	WVGS#18449	West Virginia	Kanawha	Kanawha Formation
ERP00075	E-159658	WVGS#9696	West Virginia	Kanawha	Kanawha Formation

Table 2. -- Contents of major and minor oxides in 525ºC ash for 729 National Coal Quality Inventory
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Job number	Laboratory number	Field number	State	County	Formation
ERP00075	E-159659	WVGS#15952	West Virginia	Webster	Kanawha Formation
ERP00075	E-159660	WVGS#15986	West Virginia	Webster	Kanawha Formation
ERP00075	E-159661	WVGS#18873	West Virginia	Monongalia	Monongahela Group
ERP00075	E-159662	WVGS#18875	West Virginia	Monongalia	Monongahela Group
ERP00075	E-159663	WVGS#18857	West Virginia	Monongalia	Monongahela Group
ERP00075	E-159664	WVGS#18865	West Virginia	Monongalia	Monongahela Group
ERP00075	E-159665	WVGS#18862	West Virginia	Monongalia	Monongahela Group
ERP00075	E-159666	WVGS#18859	West Virginia	Harrison	Monongahela Group
ERP00075	E-159667	WVGS#18866	West Virginia	Grant	Conemaugh Formation
ERP00075	E-159668	WVGS#18867	West Virginia	Grant	Conemaugh Formation
ERP00075	E-159669	WVGS#18868	West Virginia	Grant	Allegheny Formation
ERP00075	E-159670	WVGS#18872	West Virginia	Preston	Allegheny Formation
ERP00075	E-159671	WVGS#18870	West Virginia	Preston	Allegheny Formation
ERP00075	E-159672	WVGS#18449B	West Virginia	Kanawha	Kanawha Formation
ERP00076	E-159673	WVGS#18904	West Virginia	Boone	Kanawha Formation
ERP00076	E-159674	WVGS#11506	West Virginia	Boone	Allegheny Formation
ERP00076	E-159675	WVGS#11505	West Virginia	Boone	Allegheny Formation
ERP00076	E-159676	WVGS#11503	West Virginia	Boone	Allegheny Formation
ERP00076	E-159677	WVGS#11502	West Virginia	Boone	Kanawha Formation
ERP00076	E-159678	WVGS#11500	West Virginia	Boone	Kanawha Formation
ERP00076	E-159679	WVGS#11499	West Virginia	Boone	Kanawha Formation
ERP00076	E-159680	WVGS#11498	West Virginia	Boone	Kanawha Formation
ERP00076	E-159681	WVGS#18902	West Virginia	Boone	Kanawha Formation
ERP00076	E-159682	WVGS#18903	West Virginia	Boone	Kanawha Formation
ERP00076	E-159683	WVGS#18991	West Virginia	Boone	Kanawha Formation
ERP00076	E-159684	WVGS#18905	West Virginia	Boone	Kanawha Formation
ERP00076	E-159685	WVGS#7798	West Virginia	Nicholas	Kanawha Formation

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Job number	Laboratory number	Field number	State	County	Formation
ERP00076	E-159686	WVGS#7767	West Virginia	Nicholas	Kanawha Formation
ERP00076	E-159687	WVGS#7796	West Virginia	Nicholas	Kanawha Formation
ERP00076	E-159688	WVGS#7784	West Virginia	Nicholas	Kanawha Formation
ERP00076	E-159689	WVGS#7782	West Virginia	Nicholas	Kanawha Formation
ERP00076	E-159690	WVGS#7775	West Virginia	Nicholas	Kanawha Formation
ERP00076	E-159691	WVGS#7792	West Virginia	Nicholas	Kanawha Formation
ERP00076	E-159692	WVGS#18610	West Virginia	Boone	Kanawha Formation
ERP00076	E-159693	WVGS#9697	West Virginia	Boone	Allegheny Formation
ERP00076	E-159694	WVGS#18902B	West Virginia	Boone	Kanawha Formation
ERP00128	E-183433	WVGS#19478	West Virginia	Boone	Kanawha Formation
ERP00128	E-183434	WVGS#19479	West Virginia	Lincoln	Kanawha Formation
ERP00128	E-183435	WVGS#19483	West Virginia	Lincoln	Allegheny Formation
ERP00128	E-183436	WVGS#19484	West Virginia	Lincoln	Allegheny Formation
ERP00128	E-183437	WVGS#19485	West Virginia	Boone	Kanawha Formation
ERP00128	E-183438	WVGS#19486	West Virginia	Boone	Kanawha Formation
ERP00128	E-183439	WVGS#19488	West Virginia	Boone	Allegheny Formation
ERP00128	E-183440	WVGS#19489	West Virginia	Boone	Kanawha Formation
ERP00128	E-183441	WVGS#19491	West Virginia	Boone	Kanawha Formation
ERP00128	E-183442	WVGS#19492	West Virginia	Lincoln	Kanawha Formation
ERP00128	E-183443	WVGS#19588	West Virginia	Logan	Kanawha Formation
ERP00128	E-183444	WVGS#19589	West Virginia	Logan	Kanawha Formation
ERP00128	E-183445	WVGS#19590	West Virginia	Logan	Kanawha Formation
ERP00128	E-183446	WVGS#19591	West Virginia	Logan	Kanawha Formation
ERP00128	E-183447	WVGS#19593A	West Virginia	Logan	Kanawha Formation
ERP00128	E-183448	WVGS#19594	West Virginia	Logan	Kanawha Formation
ERP00128	E-183449	WVGS#19595	West Virginia	Logan	Kanawha Formation
ERP00128	E-183450	WVGS#19596A	West Virginia	Logan	Kanawha Formation

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Job number	Laboratory number	Field number	State	County	Formation
ERP00128	E-183451	WVGS#19597	West Virginia	Logan	Allegheny Formation
ERP00128	E-183452	WVGS#19598	West Virginia	Logan	Kanawha Formation
ERP00128	E-183453	WVGS#19599	West Virginia	Logan	Allegheny Formation
ERP00128	E-183454	WVGS#19600	West Virginia	Logan	Kanawha Formation
ERP00128	E-183455	WVGS#19601	West Virginia	Logan	Kanawha Formation
ERP00128	E-183456	WVGS#19602	West Virginia	Logan	Kanawha Formation
ERP00128	E-183457	WVGS#19603	West Virginia	Logan	Kanawha Formation
ERP00128	E-183458	WVGS#19604	West Virginia	Logan	Kanawha Formation
ERP00128	E-183459	WVGS#19633	West Virginia	Braxton	Kanawha Formation
ERP00128	E-183460	WVGS#19634	West Virginia	Braxton	Kanawha Formation
ERP00128	E-183461	WVGS#20000	West Virginia	Braxton	Kanawha Formation
ERP00128	E-183462	WVGS#20001	West Virginia	Upshur	Allegheny Formation
ERP00128	E-183463	WVGS#19593B	West Virginia	Logan	Kanawha Formation
ERP00128	E-183464	WVGS#19596B	West Virginia	Logan	Kanawha Formation
ERP00369	E-218036	WVGS#20003	West Virginia	Logan	Kanawha Formation
ERP00369	E-218037	WVGS#20009	West Virginia	Logan	Kanawha Formation
ERP00369	E-218038	WVGS#20008	West Virginia	Logan	Kanawha Formation
ERP00369	E-218039	WVGS#20048	West Virginia	Logan	Kanawha Formation
ERP00369	E-218040	WVGS#20047	West Virginia	Logan	Kanawha Formation
ERP00369	E-218041	WVGS#21554	West Virginia	Raleigh	New River Formation
ERP00369	E-218042	WVGS#19481	West Virginia	Lincoln	Kanawha Formation
ERP00369	E-218043	WVGS#21517	West Virginia	Upshur	New River Formation
ERP00369	E-218044	WVGS#21509	West Virginia	Upshur	Kanawha Formation
ERP00369	E-218045	WVGS#21536	West Virginia	Upshur	Allegheny Formation
ERP00369	E-218046	WVGS#19490	West Virginia	Boone	Kanawha Formation
ERP00369	E-218047	WVGS#21626	West Virginia	Boone	Kanawha Formation
ERP00369	E-218048	WVGS#21547	West Virginia	Raleigh	New River Formation

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Job number	Laboratory number	Field number	State	County	Formation
ERP00369	E-218049	WVGS#21692	West Virginia	Logan	Kanawha Formation
ERP00369	E-218050	WVGS#21724	West Virginia	Lewis	Kanawha Formation
ERP00369	E-218051	WVGS#21983	West Virginia	Lewis	Allegheny Formation
ERP00369	E-218052	WVGS#21966	West Virginia	Lewis	Allegheny Formation
ERP00369	E-218053	WVGS#21965	West Virginia	Lewis	Allegheny Formation
ERP00369	E-218054	WVGS#21700	West Virginia	Monongalia	Monongahela Group
ERP00369	E-218055	WVGS#9687	West Virginia	Nicholas	Allegheny Formation
ERP00369	E-218056	WVGS#25242	West Virginia	Monongalia	Monongahela Group
ERP00369	E-218057	WVGS#25239	West Virginia	Monongalia	Monongahela Group
ERP00369	E-218058	WVGS#25237	West Virginia	Monongalia	Monongahela Group
ERP00369	E-218059	WVGS#22193	West Virginia	Harrison	Monongahela Group
ERP00369	E-218060	WVGS#22169	West Virginia	Braxton	Allegheny Formation
ERP00369	E-218061	WVGS#22167	West Virginia	Braxton	Allegheny Formation
ERP00369	E-218062	WVGS#22066	West Virginia	Boone	Kanawha Formation
ERP00369	E-218063	WVGS#22295	West Virginia	Boone	Kanawha Formation
ERP00369	E-218064	WVGS#22280	West Virginia	Boone	Kanawha Formation
ERP00369	E-218065	WVGS#22188	West Virginia	Boone	Kanawha Formation
ERP00369	E-218066	WVGS#21673	West Virginia	Raleigh	New River Formation
ERP00369	E-218067	WVGS#22126	West Virginia	Mingo	Kanawha Formation
ERP00369	E-218068	WVGS#22100	West Virginia	Kanawha	Kanawha Formation
ERP00454	E-245990	WVGS#28476D	West Virginia	Marion	Monogahela Group
ERP00454	E-245991	WVGS#22047	West Virginia	Braxton	Kanawha Formation
ERP00454	E-245992	WVGS#22049	West Virginia	Braxton	Allegheny Formation
ERP00454	E-245993	WVGS#22140	West Virginia	Braxton	Allegheny Formation
ERP00454	E-245994	WVGS#22186	West Virginia	Braxton	Allegheny Formation
ERP00454	E-245995	WVGS#22205	West Virginia	Braxton	New River Formation
ERP00454	E-245996	WVGS#22215	West Virginia	Braxton	New River Formation

Table 2. -- Contents of major and minor oxides in 525ºC ash for 729 National Coal Quality Inventory
[blank space indicates no data or not analyzed]

Job number	Laboratory number	Field number	State	County	Formation
ERP00454	E-245997	WVGS#22225	West Virginia	Braxton	New River Formation
ERP00454	E-245998	WVGS#22253	West Virginia	Braxton	Allegheny Formation
ERP00454	E-245999	WVGS#22254	West Virginia	Braxton	Allegheny Formation
ERP00454	E-246000	WVGS#22256	West Virginia	Braxton	Allegheny Formation
ERP00454	E-246001	WVGS#22264	West Virginia	Braxton	Conemaugh Formation
ERP00454	E-246002	WVGS#25150	West Virginia	Monongalia	Kanawha Formation
ERP00454	E-246003	WVGS#25151	West Virginia	Monongalia	Kanawha Formation
ERP00454	E-246004	WVGS#25190	West Virginia	Monongalia	Kanawha Formation
ERP00454	E-246005	WVGS#25192	West Virginia	Monongalia	Kanawha Formation
ERP00454	E-246006	WVGS#28252	West Virginia	Marshall	Monogahela Group
ERP00454	E-246007	WVGS#28261	West Virginia	Marshall	Monogahela Group
ERP00454	E-246008	WVGS#28293	West Virginia	Marshall	Monogahela Group
ERP00454	E-246009	WVGS#28347	West Virginia	Marshall	Monogahela Group
ERP00454	E-246010	WVGS#28451	West Virginia	Monongalia	Monogahela Group
ERP00454	E-246011	WVGS#28452	West Virginia	Harrison	Monogahela Group
ERP00454	E-246012	WVGS#28476	West Virginia	Marion	Monogahela Group
ERP00455	E-246013	WVGS#16733	West Virginia	Grant	Allegheny Formation
ERP00455	E-246014	WVGS#16748	West Virginia	Grant	Allegheny Formation
ERP00455	E-246015	WVGS#16760	West Virginia	Grant	Allegheny Formation
ERP00455	E-246016	WVGS#17242	West Virginia	Mingo	Kanawha Formation
ERP00455	E-246017	WVGS#17243	West Virginia	Mingo	Kanawha Formation
ERP00455	E-246018	WVGS#17245	West Virginia	Mingo	Kanawha Formation
ERP00455	E-246019	WVGS#17246	West Virginia	Mingo	Kanawha Formation
ERP00455	E-246020	WVGS#17247	West Virginia	Mingo	Kanawha Formation
ERP00455	E-246021	WVGS#17248	West Virginia	Mingo	Kanawha Formation
ERP00455	E-246022	WVGS#17259	West Virginia	Logan	Kanawha Formation
ERP00455	E-246023	WVGS#17261	West Virginia	Logan	Kanawha Formation

Table 2. -- Contents of major and minor oxides in 525ºC ash for 729 National Coal Quality Inventory
[blank space indicates no data or not analyzed]

Job number	Laboratory number	Field number	State	County	Formation
ERP00455	E-246024	WVGS#17262	West Virginia	Logan	Kanawha Formation
ERP00455	E-246025	WVGS#17264	West Virginia	Logan	Kanawha Formation
ERP00455	E-246026	WVGS#18052	West Virginia	Wayne	Allegheny Formation
ERP00455	E-246027	WVGS#18055	West Virginia	Wayne	Kanawha Formation
ERP00455	E-246028	WVGS#18057	West Virginia	Wayne	Kanawha Formation
ERP00455	E-246029	WVGS#18059	West Virginia	Wayne	Kanawha Formation
ERP00455	E-246030	WVGS#18406	West Virginia	Wayne	Allegheny Formation
ERP00455	E-246031	WVGS#18408	West Virginia	Wayne	Allegheny Formation
ERP00455	E-246032	WVGS#21939	West Virginia	Lewis	Allegheny Formation
ERP00455	E-246033	WVGS#22014	West Virginia	Braxton	Kanawha Formation
ERP00455	E-246034	WVGS#22038	West Virginia	Braxton	Kanawha Formation
ERP00455	E-246035	WVGS#17261D	West Virginia	Logan	Kanawha Formation

/ samples.

Coal	Ash % (525°C)	SiO_2/ash (%)	Al_2O_3/ash (%)	CaO/ash (%)	MgO/ash (%)	Na_2O/ash (%)	K_2O/ash (%)	Fe_2O_3/ash (%)
	14.00	33.7	14.8	5.70	1.10	0.76	0.64	4.4
	18.10	47.4	22.6	6.70	1.40	0.40	0.80	2.5
	4.30	25.1	11.6	26.60	4.30	1.70	0.16	4.0
	3.90	19.1	14.0	26.20	4.40	1.80	0.17	4.7
	3.60	13.8	14.8	25.00	4.60	1.90	0.16	5.2
	3.90	14.7	11.5	23.20	4.10	1.70	0.15	9.2
	7.30	27.7	20.0	16.80	2.80	0.98	0.49	3.5
	6.80	29.3	18.4	16.60	2.90	1.00	0.64	3.6
	35.70	62.8	21.9	2.10	0.94	0.27	1.70	1.7
	4.60	22.5	13.5	21.20	3.60	2.30	0.35	4.2
	4.60	23.6	14.0	22.20	3.70	1.80	0.35	4.3
	4.50	22.1	11.5	23.50	3.80	1.40	0.20	4.2
	4.60	22.7	11.6	24.60	4.00	1.50	0.20	4.5
Wyodak coal zone	5.65	27.7	15.0	24.60	3.70	1.40	0.25	4.9
Wyodak coal zone	6.53	29.1	15.6	22.40	3.50	1.50	0.30	4.7
Wyodak coal zone	5.65	26.9	15.2	24.80	3.80	1.60	0.29	4.9
Wyodak coal zone	6.08	30.0	15.9	14.30	3.60	1.40	0.36	4.8
Wyodak coal zone	6.42	30.3	18.0	20.10	3.50	1.30	0.45	5.6
Wyodak coal zone	7.44	30.9	18.2	19.30	3.40	1.30	0.45	5.7
Wyodak coal zone	6.30	27.0	16.5	20.70	3.50	1.30	0.36	5.3
Wyodak coal zone	6.90	30.5	16.1	19.80	3.40	1.30	0.48	5.1
Wyodak coal zone	5.62	29.0	15.8	25.00	4.50	1.50	0.34	5.0
Wyodak coal zone	5.37	27.7	15.1	24.80	4.20	1.60	0.28	4.6
Wyodak coal zone	5.37	26.3	14.5	23.70	4.10	1.50	0.26	4.8

/ samples.

Coal	Ash % (525°C)	SiO_2/ash (%)	Al_2O_3/ash (%)	CaO/ash (%)	MgO/ash (%)	Na_2O/ash (%)	K_2O/ash (%)	Fe_2O_3/ash (%)
Wyodak coal zone	6.67	26.5	14.8	21.80	3.90	1.40	0.35	4.4
Anderson coal	14.00	53.0	14.8	9.50	2.70	0.47	1.60	5.1
Anderson coal	17.40	55.3	14.8	9.30	2.70	0.43	1.80	5.5
Anderson coal	14.00	45.9	13.7	13.90	3.50	0.47	1.40	5.2
Anderson coal	13.90	49.5	13.6	11.80	3.00	0.45	1.50	4.9
Canyon coal	6.33	28.6	14.8	22.40	5.70	1.50	0.44	6.4
Canyon coal	6.84	37.4	14.4	16.20	4.20	1.40	0.65	6.8
Canyon coal	7.67	38.2	14.2	16.40	4.20	1.30	0.71	6.4
Canyon coal	8.32	37.8	14.4	16.80	4.30	1.10	0.68	5.3
Wyodak coal zone	7.68	23.6	14.1	19.40	2.80	1.40	0.34	7.6
Wyodak coal zone	9.89	28.2	15.2	15.40	2.30	1.10	0.52	7.7
Wyodak coal zone	6.72	19.3	12.3	19.20	3.10	1.30	0.26	10.0
Wyodak coal zone	8.14	23.7	14.6	19.50	2.90	1.20	0.34	7.9
Wyodak coal zone	5.66	22.8	14.1	22.80	4.60	1.70	0.23	6.4
Wyodak coal zone	6.25	26.3	14.4	23.00	4.40	1.70	0.24	7.2
Wyodak coal zone	5.25	24.9	14.5	23.10	4.50	1.60	0.21	7.1
Wyodak coal zone	5.42	27.7	14.2	22.70	4.40	1.70	0.22	6.6
Wyodak coal zone	5.53	28.9	15.1	21.90	3.90	1.50	0.38	4.5
Anderson coal	14.70	50.4	14.0	10.20	2.80	0.48	1.60	4.7
Wyodak coal zone	6.55	32.5	17.0	20.10	3.71	1.36	0.51	4.9
Wyodak coal zone	6.59	33.3	17.2	19.10	3.70	1.30	0.53	4.9
Wyodak coal zone	6.31	32.4	18.5	20.90	3.82	1.39	0.40	5.5
Wyodak coal zone	6.50	31.6	17.7	20.60	3.61	1.42	0.39	5.3
Wyodak coal zone	5.93	28.6	15.3	22.20	3.82	1.56	0.30	5.6
Wyodak coal zone	6.14	27.5	16.4	21.90	3.94	1.56	0.27	5.4
Wyodak coal zone	5.51	27.2	16.4	21.70	3.88	1.54	0.28	5.4
Wyodak coal zone	6.12	26.4	16.3	23.40	4.16	1.62	0.26	5.4

/ samples.

Coal	Ash % (525°C)	SiO_2/ash (%)	Al_2O_3/ash (%)	CaO/ash (%)	MgO/ash (%)	Na_2O/ash (%)	K_2O/ash (%)	Fe_2O_3/ash (%)
Wyodak coal zone	6.27	29.7	16.5	22.50	3.89	1.51	0.31	5.4
Wyodak coal zone	6.19	29.2	16.6	21.80	3.85	1.57	0.30	5.2
Wyodak coal zone	6.30	28.0	16.1	22.70	4.05	1.44	0.29	5.4
Wyodak coal zone	5.40	25.8	15.5	22.90	4.14	1.64	0.23	5.4
Wyodak coal zone	5.48	26.6	15.7	24.40	4.22	1.61	0.23	5.5
Wyodak coal zone	5.57	27.0	15.5	23.20	4.06	1.68	0.23	5.2
Wyodak coal zone	5.44	27.4	15.7	22.80	4.06	1.69	0.24	5.5
Wyodak coal zone	5.78	27.7	16.1	22.10	3.95	1.54	0.26	5.4
Wyodak coal zone	5.72	27.9	15.6	21.50	3.99	1.59	0.30	5.2
Wyodak coal zone	5.76	28.9	15.5	21.90	3.90	1.60	0.28	5.6
Wyodak coal zone	5.79	29.4	15.6	21.50	3.92	1.56	0.30	5.3
Wyodak coal zone	5.41	28.9	15.8	22.50	4.33	1.49	0.31	4.6
Wyodak coal zone	5.41	29.8	15.4	22.20	4.32	1.53	0.34	4.5
Wyodak coal zone	5.51	28.8	15.7	22.60	4.33	1.60	0.31	4.9
Wyodak coal zone	5.38	28.4	16.0	22.50	4.43	1.62	0.30	5.1
Wyodak coal zone	6.06	32.4	17.4	19.80	3.96	1.25	0.47	4.5
Wyodak coal zone	5.46	31.4	16.4	22.60	4.40	1.44	0.37	4.7
Wyodak coal zone	5.44	30.0	16.1	21.80	4.28	1.49	0.35	4.7
Wyodak coal zone	5.72	31.0	16.6	20.50	4.12	1.42	0.38	4.8
Wyodak coal zone	6.74	32.9	19.5	17.80	3.64	1.30	0.49	5.6
Wyodak coal zone	6.56	33.8	19.4	19.00	3.81	1.31	0.47	6.1
Wyodak coal zone	6.48	36.5	19.5	18.20	3.70	1.27	0.49	5.9
Wyodak coal zone	5.81	29.8	16.5	23.20	4.17	1.60	0.27	5.8
Wyodak coal zone	5.29	31.6	15.7	23.80	4.55	1.53	0.35	4.9
Wyodak coal zone	6.27	32.5	18.3	19.00	3.63	1.39	0.36	5.7
Wyodak coal zone	6.14	32.1	18.3	20.60	3.82	1.33	0.34	5.5
Wyodak coal zone	6.10	31.1	17.9	19.20	3.70	1.36	0.32	5.3

/ samples.

Coal	Ash % (525°C)	SiO_2/ash (%)	Al_2O_3/ash (%)	CaO/ash (%)	MgO/ash (%)	Na_2O/ash (%)	K_2O/ash (%)	Fe_2O_3/ash (%)
Wyodak coal zone	6.22	32.4	18.1	19.40	3.68	1.34	0.31	5.2
Wyodak coal zone	6.35	35.5	18.9	18.40	3.50	1.30	0.41	5.4
Wyodak coal zone	6.30	33.4	18.6	19.10	3.70	1.37	0.32	5.7
Wyodak coal zone	6.16	32.3	18.4	18.90	3.74	1.34	0.32	5.8
Wyodak coal zone	6.37	33.3	18.5	19.70	3.81	1.35	0.31	5.8
Wyodak coal zone	6.08	33.1	18.5	19.90	3.90	1.34	0.29	5.9
Wyodak coal zone	5.58	28.5	16.7	22.00	4.06	1.60	0.16	5.0
Wyodak coal zone	5.53	27.8	16.5	21.70	4.09	1.65	0.14	5.0
Wyodak coal zone	5.52	27.1	16.6	23.10	4.32	1.64	0.14	5.3
Wyodak coal zone	5.63	27.2	16.0	21.60	4.12	1.55	0.16	5.4
Wyodak coal zone	5.66	30.9	17.6	21.00	3.96	1.58	0.18	5.5
Anderson coal	7.20	29.5	13.4	21.50	5.64	0.94	0.47	5.6
Anderson coal	6.52	28.6	12.8	23.60	6.12	1.01	0.32	5.3
Anderson coal	6.91	33.4	12.5	21.60	5.52	0.93	0.32	4.3
Anderson coal	7.01	36.0	12.4	22.30	5.71	0.90	0.34	4.7
Anderson coal	6.99	31.7	12.4	21.20	5.52	0.86	0.31	5.2
Anderson coal	7.38	33.8	12.5	20.90	5.32	0.90	0.33	5.2
Canyon coal	7.32	40.0	17.4	15.30	4.33	1.50	0.47	6.3
Canyon coal	6.58	36.2	17.3	16.80	4.62	1.64	0.42	5.9
Canyon coal	6.57	35.8	16.8	16.70	4.61	1.57	0.36	7.5
Canyon coal	6.34	35.7	16.7	16.60	4.67	1.56	0.33	6.1
Canyon coal	6.74	35.4	17.2	16.80	4.62	1.66	0.41	6.1
Canyon coal	7.08	37.3	17.3	16.60	4.64	1.55	0.50	6.1
Wyodak coal zone	9.72	34.1	17.8	14.30	2.86	1.26	0.54	7.1
Wyodak coal zone	9.12	32.9	16.9	16.50	3.16	1.38	0.43	6.8
Wyodak coal zone	6.43	29.3	14.8	19.80	4.35	1.75	0.12	6.1
Wyodak coal zone	6.13	25.4	14.8	22.40	4.76	1.88	0.06	6.4

/ samples.

Coal	Ash % (525°C)	SiO_2/ash (%)	Al_2O_3/ash (%)	CaO/ash (%)	MgO/ash (%)	Na_2O/ash (%)	K_2O/ash (%)	Fe_2O_3/ash (%)
Wyodak coal zone	5.70	27.8	16.2	21.70	4.10	1.63	0.13	4.9
Wyodak coal zone	6.26	31.4	18.0	19.00	3.70	1.35	0.23	5.5
	9.97	43.8	13.1	6.94	2.40	4.43	0.64	4.7
	8.99	43.9	11.7	9.06	3.59	2.99	0.32	4.5
	5.76	29.5	9.2	14.00	6.26	0.50	0.17	7.9
	11.20	55.7	12.4	4.44	1.33	3.05	0.27	3.5
	9.86	53.8	14.0	3.81	1.07	3.86	0.37	4.9
	3.11	33.8	11.6	12.00	5.08	4.15	0.24	2.6
	4.65	37.6	22.9	8.38	3.32	2.44	0.14	2.0
	3.73	30.6	18.8	11.60	4.62	3.30	0.17	2.1
	3.44	35.8	13.4	11.40	4.60	3.35	0.28	3.3
	4.86	49.1	18.8	2.06	0.49	0.04	0.42	12.3
	7.02	66.9	14.3	1.34	0.44	0.03	0.75	8.5
	9.20	57.7	14.4	8.40	0.47	1.70	0.20	4.1
	13.90	43.6	12.4	11.60	0.72	1.50	0.34	15.9
	28.90	63.8	19.7	2.80	0.81	1.10	1.10	5.7
	8.60	54.7	14.0	9.40	0.64	1.80	0.29	5.4
	13.00	42.7	12.4	12.70	0.78	1.60	0.36	14.0
	36.30	61.2	27.6	1.10	0.93	0.13	2.30	2.8
	40.70	59.4	26.1	0.58	0.49	0.15	0.84	4.4
	13.30	56.3	32.5	0.91	0.21	0.20	0.22	1.1
	7.20	56.0	28.6	0.77	0.53	0.38	0.36	7.8
	4.70	42.8	31.0	6.80	0.39	0.26	0.08	6.5
	6.40	53.5	28.7	0.73	0.31	0.60	0.30	12.3

/ samples.

Coal	Ash % (525°C)	SiO_2/ash (%)	Al_2O_3/ash (%)	CaO/ash (%)	MgO/ash (%)	Na_2O/ash (%)	K_2O/ash (%)	Fe_2O_3/ash (%)
	8.70	42.7	24.5	5.40	1.40	1.40	0.66	3.5
	8.00	44.5	29.9	9.40	2.60	1.40	0.77	3.4
Wadge coal	8.50	51.1	22.1	6.90	1.80	0.28	0.81	3.3
	14.00	59.1	21.0	3.40	1.50	0.98	1.20	2.3
	13.60	53.3	23.5	5.10	1.30	0.30	1.30	2.5
nber	8.50	53.8	22.6	3.30	1.70	4.10	0.99	6.8
	4.70	26.9	17.3	18.80	2.30	0.29	0.09	5.5
	8.50	42.3	19.8	10.60	2.70	0.35	0.94	4.5
	16.20	55.0	24.2	5.00	1.70	1.20	0.63	2.6
	10.50	48.6	23.2	6.40	2.30	1.60	0.39	4.0
	11.80	63.5	28.7	1.10	0.43	0.48	0.52	1.1
nber	3.80	34.2	29.3	10.60	1.20	1.10	0.08	8.0
nber	6.10	41.2	29.9	5.60	1.10	1.60	0.17	7.2
	6.00	43.4	19.2	9.60	2.40	0.22	0.48	4.2
	7.10	41.3	24.3	9.00	2.10	0.14	0.44	3.9
	6.70	43.0	18.1	11.40	2.90	0.26	0.42	4.1
	8.80	45.3	24.9	7.10	1.50	0.52	1.20	2.6
	6.40	43.4	24.5	6.20	1.10	1.60	0.44	2.9
	8.00	49.9	26.0	2.20	1.60	2.40	0.53	5.4
	7.30	55.4	25.9	0.86	0.49	2.60	0.61	6.0
	21.40	60.0	28.3	0.51	0.49	0.46	0.93	4.4
nber	7.30	49.4	24.2	3.90	1.30	0.11	1.10	7.2
	7.20	46.3	29.2	3.80	1.30	0.95	0.40	5.6
nber	9.80	55.2	21.4	3.30	2.10	2.80	0.58	5.7
	10.90	56.7	30.6	1.70	0.47	3.10	0.37	2.0
Wadge coal	17.20	64.6	17.7	3.40	1.30	0.35	1.40	2.3
	8.10	45.4	24.8	6.30	1.50	1.10	0.79	3.2

/ samples.

Coal	Ash % (525°C)	SiO_2/ash (%)	Al_2O_3/ash (%)	CaO/ash (%)	MgO/ash (%)	Na_2O/ash (%)	K_2O/ash (%)	Fe_2O_3/ash (%)
	10.30	51.6	24.9	4.70	1.40	1.10	1.20	3.7
	5.60	45.5	24.1	2.70	1.20	2.30	0.81	5.1
	5.20	45.2	25.4	3.00	1.30	2.20	0.67	6.3
	14.20	57.1	21.4	3.90	1.80	0.81	0.91	3.9
	11.90	56.4	22.6	2.90	1.70	0.84	0.89	2.6
	7.00	47.5	23.1	5.60	2.10	1.70	0.42	3.5
	1.30	24.1	19.3	11.40	1.50	3.40	0.16	4.3
	2.80	39.4	29.9	6.20	1.30	1.80	0.24	3.3
	2.70	37.5	21.9	6.80	1.50	1.50	0.36	5.2
	4.30	39.1	21.2	7.40	1.40	4.40	0.45	4.3
	1.80	43.2	15.4	8.70	2.60	2.70	1.40	5.7
	3.10	33.6	22.8	9.00	1.60	5.60	0.28	5.4
	2.30	28.7	21.8	11.40	1.90	2.20	0.21	5.0
	3.20	35.8	12.2	9.80	2.80	0.32	0.82	7.3
	4.10	36.2	21.9	11.00	3.10	0.63	0.43	4.6
	7.00	40.0	21.8	10.80	1.90	0.29	1.50	5.0
	7.60	37.6	23.7	10.00	1.90	0.32	1.10	6.0
	4.70	48.9	27.2	3.50	1.40	2.20	0.77	7.0
Iron Post coal	6.50	8.9	5.5	5.10	0.40	0.24	0.53	74.0
Iron Post coal	6.90	16.0	7.0	19.00	0.52	0.34	0.86	38.0
Croweburg coal	7.90	29.0	12.0	24.00	1.00	0.32	1.70	15.0
Mineral coal	8.00	14.7	7.6	20.20	1.40	0.43	0.79	30.4
Stiger coal	9.40	11.2	8.3	13.40	1.00	0.16	0.56	50.5
Lower Hartshorne coal	10.80	16.8	9.2	15.00	9.80	1.10	0.93	23.1

/ samples.

Coal	Ash % (525°C)	SiO_2/ash (%)	Al_2O_3/ash (%)	CaO/ash (%)	MgO/ash (%)	Na_2O/ash (%)	K_2O/ash (%)	Fe_2O_3/ash (%)
Iron Post coal	5.93	21.6	8.3	19.20	0.59	0.51	0.86	34.7
Croweburg coal	6.94	41.7	17.2	22.40	1.33	0.44	2.49	3.9
Danville Coal Member	18.00	44.0	19.0	7.20	0.96	0.88	2.00	23.0
Herrin Coal Member	13.90	32.0	14.0	4.50	1.20	0.49	2.60	31.0
Herrin Coal Member	10.10	47.0	25.0	2.00	0.96	0.84	2.50	6.3
Springfield Coal Member	19.90	32.0	12.0	4.30	0.51	0.46	1.70	35.0
Murphysboro Coal Member	7.50	29.7	16.5	0.88	0.68	0.14	2.30	26.0
Murphysboro Coal Member	8.20	37.2	19.1	0.64	0.73	0.11	2.40	41.7
Murphysboro Coal Member	6.80	36.2	17.1	1.00	0.66	0.13	2.20	33.2
Herrin Coal Member	12.20	39.8	19.7	1.80	0.75	0.12	2.20	34.2
Herrin Coal Member	12.20	47.7	21.6	1.30	0.67	0.17	2.20	28.2
Herrin Coal Member	12.10	41.8	19.4	2.60	1.30	0.18	2.10	22.8
Herrin Coal Member	9.40	42.0	18.8	9.00	1.30	0.18	1.70	20.4
Danville Coal Member	11.40	34.0	15.0	6.50	0.87	0.76	2.00	29.0
Hymera Coal Member	22.90	41.0	16.0	3.60	0.78	0.77	2.10	26.0
Herrin Coal Member	10.10	38.0	17.0	4.30	0.68	0.77	1.90	28.0
Springfield Coal Member	16.00	23.0	9.3	4.80	0.32	0.33	0.90	49.0
Houchin Creek Coal Member	15.60	47.0	17.0	1.90	0.84	0.77	2.40	21.0
Survant Coal Member	12.10	46.0	23.0	2.50	1.00	0.86	2.60	15.0
Colchester Coal Member	24.10	28.0	11.0	6.20	0.54	0.38	1.10	37.0
Seeleyville Coal Member	12.10	19.0	8.5	5.40	0.45	0.46	1.00	47.0
Davis Coal Member	15.40	19.0	10.0	6.00	0.40	0.33	0.94	52.0
Holland Coal Member	20.90	32.0	14.0	1.30	0.85	0.71	2.60	42.0
Buffaloville Coal Member	8.90	11.0	5.6	7.90	0.33	0.39	0.11	54.0
Lower Block Coal Member	14.30	42.0	22.0	2.50	0.52	0.83	2.10	21.0
uncorrelated coal	11.20	41.0	19.0	4.50	1.10	0.96	2.80	19.0
uncorrelated coal	9.30	35.0	17.0	1.30	0.64	0.70	1.70	32.0

/ samples.

Coal	Ash % (525°C)	SiO_2/ash (%)	Al_2O_3/ash (%)	CaO/ash (%)	MgO/ash (%)	Na_2O/ash (%)	K_2O/ash (%)	Fe_2O_3/ash (%)
uncorrelated coal	20.20	21.0	9.2	9.20	0.44	0.37	1.10	40.0
uncorrelated coal	17.70	39.0	14.0	7.00	0.79	0.72	2.30	16.0
uncorrelated coal	14.60	25.0	15.0	1.80	0.37	0.58	1.20	49.0
uncorrelated coal	11.00	33.0	18.0	0.47	0.57	1.20	1.90	28.0
uncorrelated coal	7.10	45.0	24.0	1.20	0.67	2.10	2.20	9.2
uncorrelated coal	13.10	28.0	13.0	6.90	0.49	0.75	1.50	32.0
uncorrelated coal	17.90	29.0	12.0	3.30	0.43	0.48	1.30	40.0
Upper Block Coal Member	2.20	49.3	27.6	1.43	0.60	0.92	1.26	12.8
Upper Block Coal Member	6.70	50.2	23.3	9.48	0.52	0.43	1.52	3.9
Upper Block Coal Member	7.80	54.7	28.3	1.93	0.57	0.40	1.11	5.2
Lower Block Coal Member	4.90	35.6	18.3	0.49	0.37	0.41	1.35	39.1
Lower Block Coal Member	7.10	50.1	23.7	0.46	0.51	0.46	2.07	17.9
Lower Block Coal Member	4.00	47.8	24.0	0.56	0.21	0.41	0.50	21.3
Lower Block Coal Member	5.60	40.4	28.9	0.68	0.32	0.40	0.68	21.2
Lower Block Coal Member	4.40	34.6	18.0	6.18	0.58	0.90	1.53	33.3
Lower Block Coal Member	7.80	59.3	24.6	2.53	0.55	0.70	2.06	5.1
Lower Block Coal Member	5.00	33.5	19.3	2.82	0.33	0.96	0.82	36.2
Lower Block Coal Member	4.80	48.0	30.6	1.22	0.32	0.86	0.63	10.9
Upper Block Coal Member	6.30	50.7	23.7	2.11	0.44	0.20	1.41	15.2
Upper Block Coal Member	17.70	52.6	33.8	1.62	0.66	0.20	1.54	4.4
Upper Block Coal Member	14.70	31.6	24.7	6.42	0.53	0.19	1.19	26.2
Minshall Coal Member	9.10	19.4	10.1	0.53	0.33	0.09	0.68	62.5
Minshall Coal Member	8.00	19.8	11.0	0.50	0.35	0.09	0.71	64.0
Minshall Coal Member	7.10	11.8	8.9	0.66	0.19	0.08	0.16	71.3
Minshall Coal Member	3.80	19.0	14.8	0.94	0.38	0.11	0.20	60.2
Minshall Coal Member	10.30	38.9	28.7	0.53	0.56	0.15	2.02	24.0
Minshall Coal Member	9.90	40.6	29.4	0.46	0.57	0.16	2.09	21.0

/ samples.

Coal	Ash % (525°C)	SiO_2/ash (%)	Al_2O_3/ash (%)	CaO/ash (%)	MgO/ash (%)	Na_2O/ash (%)	K_2O/ash (%)	Fe_2O_3/ash (%)
Upper Block Coal Member	6.60	26.3	22.0	2.80	0.31	0.13	0.68	40.1
Upper Block Coal Member	4.60	31.1	28.1	2.72	0.39	0.18	0.86	24.8
Upper Block Coal Member	4.70	11.8	9.5	4.83	0.20	0.12	0.45	62.9
Upper Block Coal Member	2.80	17.2	14.3	5.10	0.31	0.18	0.73	49.9
Upper Block Coal Member	4.80	23.8	17.8	1.76	0.40	0.12	1.21	47.7
Upper Block Coal Member	3.50	32.1	23.0	1.99	0.59	0.18	1.86	31.0
Danville Coal Member	4.70	41.1	20.6	8.39	0.75	0.26	2.06	16.1
Danville Coal Member	3.80	49.2	23.0	2.22	0.76	0.28	2.54	15.6
Danville Coal Member	11.60	55.4	23.4	1.38	1.15	0.27	2.94	8.6
Danville Coal Member	10.90	56.1	23.7	0.51	1.16	0.27	3.04	8.2
Danville Coal Member	13.00	56.1	23.3	0.62	1.30	0.28	3.06	10.5
Danville Coal Member	12.80	58.2	23.8	0.47	1.34	0.28	3.16	7.5
Danville Coal Member	8.40	54.1	24.2	0.82	1.38	0.26	2.80	13.8
Danville Coal Member	7.10	55.7	25.2	0.85	1.39	0.29	2.90	11.1
Lower Block Coal Member	3.80	53.4	26.3	0.66	0.24	0.46	0.55	14.4
Minshall Coal Member	8.00	21.6	11.5	0.49	0.35	0.08	0.76	64.1
Upper Block Coal Member	3.50	34.0	24.2	2.08	0.61	0.18	1.91	32.4
Danville Coal Member	5.40	47.3	23.4	3.70	0.88	0.34	2.40	15.1
Danville Coal Member	4.70	53.6	24.9	1.30	0.98	0.31	2.80	12.5
Danville Coal Member	12.80	55.2	24.5	1.70	1.30	0.32	3.00	9.9
Danville Coal Member	12.00	57.6	25.7	0.75	1.40	0.33	3.30	6.1
Danville Coal Member	8.90	54.7	24.6	0.75	1.40	0.31	2.90	12.5
Danville Coal Member	8.10	55.1	24.5	0.59	1.40	0.31	2.90	13.0
Hymera Coal Member	13.00	35.7	12.3	2.90	0.56	0.50	1.40	45.4
Hymera Coal Member	7.10	23.4	9.1	3.00	0.38	0.33	0.88	60.9
Hymera Coal Member	7.50	28.8	13.6	2.40	0.46	0.39	1.20	41.0
Hymera Coal Member	6.40	33.8	14.7	1.40	0.48	0.44	1.40	42.5

/ samples.

Coal	Ash % (525°C)	SiO_2/ash (%)	Al_2O_3/ash (%)	CaO/ash (%)	MgO/ash (%)	Na_2O/ash (%)	K_2O/ash (%)	Fe_2O_3/ash (%)
Hymera Coal Member	16.80	49.5	17.9	1.80	1.10	0.52	2.70	17.7
Hymera Coal Member	14.30	54.1	19.6	0.94	1.20	0.57	3.00	19.3
Danville Coal Member	20.90	64.2	20.4	0.63	1.80	1.40	3.60	6.7
Danville Coal Member	8.20	53.4	21.1	0.52	1.30	1.20	3.90	8.1
Danville Coal Member	12.30	63.2	25.3	1.10	1.50	1.00	3.40	4.5
Danville Coal Member	11.90	67.0	26.5	0.38	1.40	1.00	3.50	4.1
Danville Coal Member	6.60	51.3	24.5	6.30	1.30	0.91	3.10	4.2
Danville Coal Member	5.70	59.4	27.7	1.10	1.40	0.96	3.80	4.1
Danville Coal Member	7.50	51.0	23.5	3.10	1.60	0.88	2.90	9.3
Danville Coal Member	6.80	56.8	25.4	0.89	1.60	0.93	3.20	6.5
Danville Coal Member	33.60	53.2	21.8	3.40	2.40	0.78	3.40	7.8
Danville Coal Member	10.00	57.9	25.3	0.97	1.60	1.10	3.60	5.6
Mariah Hill Coal Member	3.00	36.3	27.3	10.70	0.32	0.88	0.62	10.0
Mariah Hill Coal Member	1.90	42.7	34.9	2.10	0.26	1.20	0.49	9.0
Mariah Hill Coal Member	3.00	25.4	19.4	23.50	0.31	0.96	0.36	9.4
Mariah Hill Coal Member	1.30	43.7	34.1	1.50	0.35	1.70	0.72	10.8
Mariah Hill Coal Member	6.90	43.1	29.9	7.50	0.89	0.75	3.00	6.0
Mariah Hill Coal Member	5.00	48.7	34.1	0.73	0.93	1.00	3.50	6.2
unnamed coal	9.70	33.2	11.9	1.30	0.22	0.44	0.70	44.8
unnamed coal	7.40	41.9	14.8	0.65	0.19	0.56	0.66	37.3
unnamed coal	3.90	27.8	18.5	3.90	0.18	0.80	0.14	42.5
unnamed coal	3.30	38.1	20.1	2.20	0.16	1.10	0.13	42.6
unnamed coal	6.30	37.6	32.2	2.50	0.16	0.67	0.22	21.0
unnamed coal	5.60	41.2	34.6	0.64	0.17	0.80	0.27	14.1
unnamed coal	10.10	45.0	33.0	1.10	0.50	0.64	1.20	17.5
unnamed coal	9.90	47.6	33.9	0.98	0.56	0.66	1.50	16.6
unnamed coal	7.50	43.1	15.5	0.55	0.19	0.56	0.71	33.9

/ samples.

Coal	Ash % (525°C)	SiO_2/ash (%)	Al_2O_3/ash (%)	CaO/ash (%)	MgO/ash (%)	Na_2O/ash (%)	K_2O/ash (%)	Fe_2O_3/ash (%)
Danville Coal Member	13.00	50.6	23.0	2.10	1.30	0.29	3.10	10.0
Hymera Coal Member	6.70	35.8	16.7	1.10	0.55	0.40	1.60	45.4
Lower Block Coal Member	4.44	47.8	24.1	0.99	0.71	0.39	2.00	5.3
Lower Block Coal Member	4.05	54.2	26.2	0.63	0.76	0.43	2.50	4.8
Lower Block Coal Member	3.90	53.8	29.2	1.20	0.40	0.40	1.00	6.1
Lower Block Coal Member	3.38	53.6	30.2	0.77	0.42	0.39	0.78	4.5
Lower Block Coal Member	5.20	39.0	28.2	0.79	0.31	0.35	0.57	16.1
Lower Block Coal Member	4.61	43.9	31.5	0.70	0.32	0.37	0.66	9.2
unnamed coal	5.03	30.9	16.6	0.84	0.52	0.72	1.70	33.1
unnamed coal	4.00	31.1	17.3	0.68	0.49	0.91	1.70	38.5
unnamed coal	8.77	54.3	29.3	0.35	0.38	0.56	1.30	5.6
unnamed coal	9.18	57.7	31.0	0.30	0.39	0.54	1.20	3.0
unnamed coal	4.98	44.0	28.8	0.73	0.55	0.73	1.30	14.5
unnamed coal	4.34	47.4	33.0	0.53	0.53	0.92	1.60	5.8
unnamed coal	9.69	27.3	19.1	0.29	0.27	0.46	0.82	16.3
unnamed coal	5.90	46.1	31.8	0.34	0.43	0.72	1.40	11.4
prepared coal	16.50	35.6	15.7	7.00	0.92	0.57	2.50	25.0
prepared coal	14.20	34.8	15.6	7.90	0.95	0.59	2.10	26.3
prepared coal	13.30	34.7	14.9	7.30	0.88	0.51	2.00	25.7
prepared coal	14.30	32.1	14.5	7.60	0.84	0.54	2.00	22.8
prepared coal	15.40	33.1	14.8	7.40	0.89	0.52	2.10	26.6
prepared coal	9.94	51.7	21.7	1.40	1.30	1.00	3.00	5.8
prepared coal	10.40	54.8	22.4	1.30	1.40	1.30	3.40	4.9
prepared coal	9.84	54.1	23.0	1.30	1.40	1.20	3.20	5.7
Springfield Coal Member	13.20	29.9	12.7	7.80	0.72	0.42	1.80	30.4
Springfield Coal Member	9.11	40.4	17.0	3.40	0.91	0.58	2.30	23.9
Springfield Coal Member	13.00	45.7	20.1	8.70	0.85	0.58	2.20	7.1

/ samples.

Coal	Ash % (525°C)	SiO_2/ash (%)	Al_2O_3/ash (%)	CaO/ash (%)	MgO/ash (%)	Na_2O/ash (%)	K_2O/ash (%)	Fe_2O_3/ash (%)
Springfield Coal Member	9.86	47.9	20.7	4.60	0.83	0.64	2.30	9.7
Springfield Coal Member	11.60	20.3	11.9	6.20	0.35	0.44	0.97	51.0
Springfield Coal Member	5.97	38.9	23.1	3.90	0.54	0.88	1.90	18.8
Springfield Coal Member	15.50	23.3	11.9	1.30	0.52	0.40	1.60	49.8
Springfield Coal Member	7.52	43.3	23.7	0.79	0.92	0.82	2.90	18.4
Springfield Coal Member	14.30	46.9	19.8	1.50	1.10	0.63	2.90	15.8
Springfield Coal Member	11.70	48.2	20.7	0.45	1.10	0.69	3.00	16.1
Lower Block Coal Member	3.91	51.5	28.3	1.10	0.38	0.42	0.78	6.3
Springfield Coal Member	11.50	21.7	12.3	5.40	0.34	0.41	1.00	46.6
fly ash	77.30	59.4	23.6	2.30	1.50	0.94	3.30	8.8
fly ash	69.50	58.9	22.7	4.00	1.40	0.95	3.00	9.2
fly ash	76.50	56.1	21.7	3.00	1.40	0.96	2.90	9.0
fly ash	81.50	62.9	25.1	1.30	1.50	1.10	3.50	5.5
fly ash	73.30	63.7	25.8	1.70	1.50	1.10	3.60	6.0
fly ash	74.10	58.8	24.0	1.70	1.40	1.00	3.40	5.6
fly ash	64.40	54.5	22.5	6.00	1.40	0.78	2.90	9.6
fly ash	72.50	57.9	23.4	2.60	1.40	1.00	3.40	7.1
hopper ash	98.10	58.0	22.6	1.60	1.30	1.00	3.10	11.7
fly ash	95.70	41.9	17.6	8.50	1.00	0.55	2.40	27.6
fly ash	95.90	40.5	17.0	9.40	0.99	0.49	2.40	30.7
fly ash	96.10	44.6	19.6	8.60	1.20	0.59	2.80	28.9
gypsum	77.30	1.7	0.3	45.80	0.06	<0.01	0.07	0.4
fly ash	76.80	54.6	20.5	4.50	1.40	0.89	2.70	11.3
Lower Block Coal Member	2.47	33.4	20.9	0.80	0.41	0.20	0.72	26.8
Lower Block Coal Member	1.72	51.2	30.8	1.10	0.62	0.23	1.10	3.4
Lower Block Coal Member	3.06	40.5	22.8	0.84	0.40	0.20	1.20	28.5
Lower Block Coal Member	2.81	53.4	29.6	0.68	0.47	0.21	1.60	7.2

/ samples.

Coal	Ash % (525°C)	SiO_2/ash (%)	Al_2O_3/ash (%)	CaO/ash (%)	MgO/ash (%)	Na_2O/ash (%)	K_2O/ash (%)	Fe_2O_3/ash (%)
Lower Block Coal Member	7.09	57.1	26.0	0.40	0.51	0.19	1.70	9.6
Lower Block Coal Member	6.19	54.8	27.1	0.34	0.44	0.19	1.70	4.4
Lower Block Coal Member	11.00	17.9	11.8	0.22	0.17	0.07	0.24	55.4
Lower Block Coal Member	5.69	42.0	30.2	0.69	0.38	0.15	0.60	12.4
unnamed coal	2.73	26.1	16.5	1.00	0.42	0.50	0.54	44.3
unnamed coal	2.26	28.3	19.0	1.60	0.51	0.63	0.68	38.8
unnamed coal	3.56	21.5	15.0	0.68	0.39	0.46	0.55	55.0
unnamed coal	2.74	32.4	23.6	1.00	0.79	0.58	0.97	31.7
unnamed coal	5.64	21.0	14.3	0.61	0.60	0.33	0.96	42.6
unnamed coal	4.12	31.4	20.5	1.10	0.95	0.50	1.70	20.6
Lower Block Coal Member	2.35	39.8	24.7	0.92	0.47	0.20	0.93	21.5
Hymera Coal Member	13.00	46.0	28.5	0.33	1.00	0.26	3.00	13.0
Hymera Coal Member	11.60	43.6	27.4	0.28	0.96	0.24	2.80	11.7
Hymera Coal Member	8.70	43.3	26.0	0.57	0.86	0.28	2.10	13.4
Hymera Coal Member	8.20	42.9	26.1	0.47	0.80	0.24	2.10	10.7
Hymera Coal Member	9.72	49.3	23.4	0.36	1.00	0.20	2.40	13.5
Hymera Coal Member	9.16	50.0	24.2	0.53	0.90	0.20	2.40	13.0
Hymera Coal Member	13.80	45.4	28.4	1.00	1.00	0.26	2.60	10.0
Hymera Coal Member	11.10	45.6	28.5	0.91	1.00	0.25	2.70	12.6
Springfield Coal Member	12.40	35.0	17.6	2.40	0.82	0.50	2.60	27.5
Springfield Coal Member	9.38	43.1	22.0	1.20	1.10	0.59	3.10	20.7
Springfield Coal Member	5.59	36.8	22.9	4.80	0.76	0.73	2.40	19.6
Springfield Coal Member	4.97	40.8	25.2	1.50	0.85	0.81	2.80	18.1
Springfield Coal Member	15.90	28.6	12.9	1.80	0.46	0.35	1.60	43.4
Springfield Coal Member	6.67	38.3	21.1	2.70	0.61	0.57	1.90	24.4
Springfield Coal Member	11.40	43.3	18.0	3.80	1.00	0.68	3.00	16.2
Springfield Coal Member	9.76	50.9	20.9	1.70	1.10	0.73	3.50	15.0

/ samples.

Coal	Ash % (525°C)	SiO_2/ash (%)	Al_2O_3/ash (%)	CaO/ash (%)	MgO/ash (%)	Na_2O/ash (%)	K_2O/ash (%)	Fe_2O_3/ash (%)
Hymera Coal Member	11.50	46.3	29.0	0.85	0.97	0.24	2.70	12.7
Springfield Coal Member	11.40	45.2	18.6	4.30	1.00	0.68	3.10	18.6
Springfield Coal Member	6.55	38.4	19.2	3.44	0.65	1.08	2.01	24.7
Springfield Coal Member	5.58	37.5	18.4	3.05	0.76	1.50	2.08	26.8
Springfield Coal Member	3.18	38.1	22.4	3.55	0.48	2.23	1.50	20.3
Springfield Coal Member	2.92	37.6	21.7	1.79	0.56	2.50	1.50	23.8
Springfield Coal Member	4.64	47.4	25.4	0.88	0.90	1.57	2.96	12.3
Springfield Coal Member	4.67	48.4	25.8	0.87	0.97	1.52	3.26	10.7
Springfield Coal Member	5.90	51.6	24.1	0.88	1.22	1.37	3.11	9.0
Springfield Coal Member	6.28	52.9	24.2	0.73	1.29	1.41	3.16	8.8
Danville Coal Member	17.80	58.1	19.4	2.93	1.53	1.33	3.45	4.6
Danville Coal Member	14.60	55.4	22.5	3.10	1.20	0.92	3.38	2.7
Danville Coal Member	12.10	58.8	22.9	1.59	1.56	1.10	3.50	3.6
Danville Coal Member	8.95	46.1	19.9	8.78	1.31	1.02	2.50	6.9
Upper Block Coal Member	33.30	64.0	23.1	0.44	0.69	0.24	2.05	2.4
Upper Block Coal Member	10.10	62.0	23.3	0.52	0.54	0.22	1.52	6.5
Upper Block Coal Member	4.30	46.5	29.3	0.86	0.53	0.28	1.05	12.0
Upper Block Coal Member	5.47	45.2	26.9	0.73	0.62	0.25	1.87	16.5
Lower Block Coal Member	2.53	48.5	23.3	2.75	0.83	0.87	1.86	5.6
Lower Block Coal Member	4.66	53.8	23.3	0.71	0.58	0.60	2.50	10.2
Lower Block Coal Member	6.65	60.4	27.3	0.63	0.67	0.55	2.45	1.5
Lower Block Coal Member	10.00	29.2	16.0	0.35	0.26	0.47	0.86	44.3
Buffaloville Coal Member	13.70	37.9	16.3	0.57	0.73	0.26	1.72	37.1
Buffaloville Coal Member	11.40	52.4	23.0	0.46	0.61	0.15	1.78	12.4
Buffaloville Coal Member	26.80	53.2	30.7	0.56	0.41	0.14	1.16	7.4
Buffaloville Coal Member	10.80	41.7	20.1	0.46	0.32	0.13	1.01	35.3
Springfield Coal Member	8.54	52.5	20.7	2.52	1.08	0.83	3.14	13.2

/ samples.

Coal	Ash % (525°C)	SiO_2/ash (%)	Al_2O_3/ash (%)	CaO/ash (%)	MgO/ash (%)	Na_2O/ash (%)	K_2O/ash (%)	Fe_2O_3/ash (%)
Springfield Coal Member	8.58	55.9	21.8	1.33	1.30	0.81	3.51	13.3
Springfield Coal Member	7.93	54.9	24.6	3.07	1.00	0.87	2.61	10.3
Springfield Coal Member	6.51	53.4	25.6	2.31	0.99	0.97	2.39	10.8
Springfield Coal Member	8.72	28.6	14.7	11.40	0.72	0.72	1.68	29.6
Springfield Coal Member	5.70	45.4	24.0	3.11	1.02	1.06	2.66	18.7
Springfield Coal Member	8.64	48.9	22.7	1.60	1.38	0.80	3.10	18.2
Springfield Coal Member	8.16	49.9	23.1	1.36	1.30	0.83	3.23	16.5
Seeleyville Coal Member	4.08	51.1	28.0	0.43	0.71	0.81	2.29	13.0
Seeleyville Coal Member	4.05	51.9	27.8	0.50	0.69	0.77	2.30	12.0
Seeleyville Coal Member	6.31	43.0	26.7	0.70	0.50	0.54	1.25	22.5
Seeleyville Coal Member	5.74	41.2	27.6	0.76	0.40	0.56	1.04	21.5
Seeleyville Coal Member	18.30	42.8	21.0	0.09	0.98	0.47	2.83	27.8
Seeleyville Coal Member	12.40	49.6	21.1	0.21	1.22	0.76	3.18	19.1
Seeleyville Coal Member	56.70	59.2	23.3	0.10	1.04	0.54	3.90	10.8
Seeleyville Coal Member	22.80	46.6	24.1	0.34	0.83	0.39	2.16	23.9
Seeleyville Coal Member	12.00	28.0	12.2	4.87	0.41	0.28	1.07	47.8
Seeleyville Coal Member	7.82	32.1	17.7	1.01	0.22	0.35	0.52	46.3
Seeleyville Coal Member	11.30	25.9	13.1	10.40	0.43	0.42	1.22	39.6
Seeleyville Coal Member	6.97	36.5	17.8	1.51	0.53	0.55	1.63	39.5
Seeleyville Coal Member	10.00	37.6	16.0	5.35	0.66	0.45	2.00	33.3
Seeleyville Coal Member	7.13	48.1	20.4	1.28	0.83	0.64	2.67	21.6
Seeleyville Coal Member	10.50	34.6	15.8	3.87	0.49	0.34	1.49	41.1
Seeleyville Coal Member	7.71	38.9	18.0	0.76	0.54	0.44	1.62	37.6
Upper Millersburg Coal Member	18.20	27.4	11.1	1.47	0.64	0.45	1.67	55.4
Upper Millersburg Coal Member	11.30	47.6	20.1	0.79	1.16	0.84	3.00	27.5
Upper Millersburg Coal Member	6.39	39.0	19.4	4.31	0.85	0.61	2.15	28.6
Upper Millersburg Coal Member	6.01	40.1	19.4	0.92	1.03	0.67	2.34	31.6

/ samples.

Coal	Ash % (525°C)	SiO_2/ash (%)	Al_2O_3/ash (%)	CaO/ash (%)	MgO/ash (%)	Na_2O/ash (%)	K_2O/ash (%)	Fe_2O_3/ash (%)
Upper Millersburg Coal Member	12.50	48.2	20.8	1.73	1.13	0.75	2.89	23.0
Upper Millersburg Coal Member	9.59	47.0	24.4	0.44	1.14	0.56	2.91	19.0
Upper Millersburg Coal Member	11.40	43.9	19.3	1.99	0.61	0.39	1.68	31.3
Upper Millersburg Coal Member	10.50	43.3	19.2	0.31	0.56	0.46	1.65	33.2
Upper Millersburg Coal Member	22.10	46.3	11.2	5.57	0.27	0.22	0.70	34.1
Upper Millersburg Coal Member	8.08	40.3	16.3	0.78	0.49	0.45	1.56	38.0
Upper Millersburg Coal Member	7.83	39.3	22.1	5.50	0.55	0.61	1.29	24.9
Upper Millersburg Coal Member	6.76	41.1	22.3	1.64	0.57	0.67	1.48	27.6
Upper Millersburg Coal Member	9.82	46.6	18.9	4.40	0.54	0.47	1.86	22.6
Upper Millersburg Coal Member	8.48	45.7	18.8	2.38	0.52	0.47	1.85	26.0
Pirtle Coal Member	10.60	30.2	14.6	4.31	0.69	0.24	1.96	43.0
Pirtle coal	9.47	29.1	14.1	2.52	0.62	0.23	1.84	48.5
Big Run coal	7.87	45.2	18.8	3.16	0.75	1.01	2.09	23.5
Briar Hill coal	13.59	43.6	19.6	1.73	0.96	1.30	2.79	26.1
Baker coal	72.47	53.8	20.3	3.19	1.76	2.38	2.88	13.6
Springfield coal	10.12	38.0	12.9	1.89	0.49	0.66	1.04	38.3
Springfield coal	14.95	16.8	7.5	16.17	3.16	4.27	0.81	39.8
Springfield coal	21.12	24.9	8.0	2.26	0.53	0.72	1.15	53.9
Springfield coal	73.26	59.6	19.0	3.89	2.50	3.37	4.12	7.9
uncorrelated coal	13.35	42.0	19.1	1.62	0.93	1.25	2.63	28.3
Baker coal	22.56	15.5	7.1	14.71	0.44	0.59	0.61	50.6
Baker coal	7.66	47.0	21.6	1.94	0.65	0.88	1.71	21.3
Baker coal	10.78	46.1	17.8	4.03	0.75	1.01	2.02	24.9
Springfield coal	9.93	54.8	19.5	2.20	0.87	1.17	2.46	14.3
Springfield coal	12.47	27.1	11.0	3.94	0.50	0.68	1.24	49.4
Springfield coal	14.53	34.8	12.1	3.69	0.75	1.01	1.53	40.2
Springfield coal	73.64	53.1	18.6	3.43	1.74	2.35	3.74	12.7

/ samples.

Coal	Ash % (525°C)	SiO_2/ash (%)	Al_2O_3/ash (%)	CaO/ash (%)	MgO/ash (%)	Na_2O/ash (%)	K_2O/ash (%)	Fe_2O_3/ash (%)
Davis coal	12.27	43.7	17.0	1.25	0.88	1.19	1.95	30.0
Davis coal	77.74	50.6	17.7	3.08	1.75	2.37	3.62	14.9
Survant coal	77.42	50.8	15.4	8.54	2.28	3.07	3.58	9.6
Survant coal	66.81	61.6	17.1	1.44	2.23	3.00	3.84	8.9
Springfield coal	10.37	59.0	20.0	1.50	0.86	1.17	2.66	13.3
Springfield coal	14.82	20.4	8.7	4.64	0.30	0.40	0.92	58.3
Springfield coal	13.53	40.0	14.4	4.09	0.76	1.03	1.85	36.1
Springfield coal	69.48	52.9	17.1	5.29	1.91	2.58	3.80	9.2
Colchester coal	15.53	41.9	15.2	2.27	1.54	2.08	2.76	27.9
Colchester coal	79.70	58.3	20.3	0.57	1.97	2.66	4.14	11.7
Herrin coal	9.49	32.9	17.5	2.12	0.42	0.57	1.21	39.1
Herrin coal	5.72	43.3	21.9	1.75	0.84	1.14	2.47	22.7
Herrin coal	14.70	55.7	24.9	0.86	0.49	0.66	1.98	9.9
Herrin coal	12.36	41.9	17.2	1.51	0.95	1.29	2.36	30.0
prepared coal	5.50	48.6	24.9	1.70	0.75	0.44	1.40	14.1
prepared coal	35.60	14.2	3.1	0.89	0.31	0.06	0.40	67.5
prepared coal	5.80	47.3	26.3	1.50	0.78	0.48	1.40	12.3
prepared coal	3.30	47.6	26.8	1.60	0.82	0.47	1.70	12.4
prepared coal	6.70	46.9	26.2	1.60	0.79	0.43	1.50	13.6
prepared coal	4.50	49.2	25.1	2.00	0.87	0.40	1.30	10.5
prepared coal	3.30	49.1	25.5	2.20	0.92	0.50	1.10	11.4
prepared coal	5.30	46.5	24.7	2.20	0.87	0.37	1.20	10.2
Dean (Fireclay) coal	5.60	36.0	18.8	1.10	0.60	0.34	1.50	23.9
Dean (Fireclay) coal	7.90	40.5	21.1	0.57	0.87	0.23	3.20	25.2

/ samples.

Coal	Ash % (525°C)	SiO_2/ash (%)	Al_2O_3/ash (%)	CaO/ash (%)	MgO/ash (%)	Na_2O/ash (%)	K_2O/ash (%)	Fe_2O_3/ash (%)
Dean (Fireclay) coal	1.80	23.9	21.6	2.70	0.79	0.58	0.63	38.0
Dean (Fireclay) coal	1.50	35.1	33.2	4.10	1.50	2.20	0.77	8.6
Dean (Fireclay) coal	2.80	50.0	30.6	2.20	0.78	0.59	0.54	3.7
Dean (Fireclay) coal	7.30	58.0	27.5	0.85	0.45	0.28	1.00	2.4
Dean (Fireclay) coal	5.30	50.3	29.7	0.54	0.48	0.18	1.20	3.5
prepared coal	35.10	14.2	3.1	0.75	0.24	0.05	0.40	68.7
Dean (Fireclay) coal	4.40	39.2	21.3	1.20	0.67	0.39	1.60	24.6
fly ash	99.70	49.9	24.4	1.80	0.71	0.42	1.50	17.3
fly ash	89.10	53.0	27.2	1.90	0.78	0.47	1.60	14.1
fly ash	87.90	52.7	27.1	1.90	0.79	0.50	1.60	13.3
fly ash	83.40	53.7	25.7	1.80	0.74	0.52	1.60	11.9
fly ash	87.20	51.3	24.3	1.70	0.71	0.48	1.60	10.1
fly ash	88.50	52.4	26.7	1.80	0.76	0.47	1.60	13.5
fly ash	88.10	51.5	25.6	1.80	0.75	0.46	1.50	13.2
fly ash	83.20	48.4	23.8	1.70	0.68	0.44	1.50	13.9
fly ash	86.10	51.0	25.6	1.80	0.73	0.44	1.50	13.6
fly ash	89.30	50.7	29.4	2.20	0.96	0.67	1.90	9.5
fly ash	88.20	50.1	29.5	2.30	0.95	0.67	1.90	9.9
fly ash	89.30	48.9	28.7	2.30	1.00	0.68	1.90	10.6
fly ash	88.40	45.4	26.9	2.20	0.92	0.69	1.80	8.9
fly ash	86.60	45.6	28.6	2.30	1.10	0.61	2.20	12.8
fly ash	85.40	48.9	29.4	2.30	1.10	0.67	2.00	11.3
bottom ash	94.80	52.5	24.8	1.50	0.67	0.38	1.50	17.8
fly ash	83.30	45.4	23.1	1.70	0.66	0.47	1.40	10.4
fly ash	89.20	51.4	30.4	2.30	1.10	0.67	1.90	11.4
Lower Kittanning coal	24.50	44.2	34.2	0.25	0.53	0.14	1.53	14.6
Lower Kittanning coal	24.50	45.6	35.4	0.23	0.55	0.14	1.57	15.1

/ samples.

Coal	Ash % (525°C)	SiO_2/ash (%)	Al_2O_3/ash (%)	CaO/ash (%)	MgO/ash (%)	Na_2O/ash (%)	K_2O/ash (%)	Fe_2O_3/ash (%)
Lower Kittanning coal	6.80	39.7	34.0	1.24	0.90	0.28	2.04	15.5
Lower Kittanning coal	13.80	39.5	26.2	1.91	0.46	0.16	1.21	27.7
Lower Kittanning coal	23.20	50.2	28.0	0.88	0.48	0.17	1.66	16.2
Lower Kittanning coal	55.80	55.0	28.8	0.39	0.53	0.18	1.99	12.4
Lower Kittanning coal	76.20	58.0	30.9	0.35	0.44	0.21	1.80	6.5
Lower Kittanning coal	25.10	50.3	28.4	0.69	0.57	0.17	1.84	15.1
Sewickley coal	16.50	45.8	17.2	0.57	0.86	0.23	2.24	35.3
Redstone coal	6.56	54.5	28.6	1.04	0.70	1.09	2.18	5.8
Morantown coal	27.80	52.2	25.1	1.54	1.05	0.24	3.00	13.0
Lower Freeport coal	12.80	44.4	30.4	1.21	0.79	0.36	2.32	15.6
Sewickley coal	24.90	57.9	19.5	1.27	0.99	0.27	2.91	17.4
Redstone coal	14.90	63.4	25.2	0.59	0.78	0.50	2.86	4.2
Morantown coal	39.00	57.4	26.4	0.85	1.19	0.25	3.57	8.0
Lower Freeport coal	8.05	40.9	29.9	1.48	0.68	0.57	1.52	20.9
Upper Kittanning coal	17.10	43.3	24.7	4.87	0.76	0.21	2.01	16.7
Lower Kittanning coal	18.90	48.3	27.0	1.06	0.57	0.19	1.89	18.4
	71.60	53.9	23.1	3.54	0.99	0.22	2.96	12.1
	42.80	52.0	22.8	1.58	0.66	0.25	2.38	17.8
Pittsburgh coal	11.80	48.7	27.1	2.38	0.85	0.25	2.33	14.3
Blue Lick coal	19.20	44.5	37.5	2.33	0.93	0.34	1.05	5.3
	3.99	54.9	25.4	0.48	0.65	1.64	2.72	14.3
Lower Kittanning coal	14.10	46.1	23.5	1.13	0.73	0.14	2.28	19.4
Lower Kittanning coal	19.80	49.2	24.1	0.73	0.70	0.14	2.14	17.5
Lower Kittanning coal	57.30	51.6	25.0	0.53	1.31	0.17	3.54	11.0
Lower Kittanning coal	31.00	50.9	25.0	0.62	1.46	0.17	3.44	12.1
Lower Kittanning coal	9.27	47.9	28.0	1.09	0.78	0.17	2.02	14.0
Pittsburgh coal	9.18	46.5	22.4	2.05	0.71	0.48	2.09	19.0

/ samples.

Coal	Ash % (525°C)	SiO_2/ash (%)	Al_2O_3/ash (%)	CaO/ash (%)	MgO/ash (%)	Na_2O/ash (%)	K_2O/ash (%)	Fe_2O_3/ash (%)
Pittsburgh coal	30.40	59.8	23.2	1.59	0.85	0.52	2.75	6.1
Pittsburgh coal	31.60	60.7	22.7	1.21	0.83	0.54	2.80	6.0
Pittsburgh coal	9.11	51.3	23.0	1.79	0.72	0.50	1.98	14.2
Pittsburgh coal	79.60	62.5	22.4	1.06	0.78	0.50	2.63	5.5
Jellico coal	9.41	52.5	31.0	2.50	0.99	0.33	2.07	5.4
Mingo coal	4.03	42.2	28.2	1.95	0.96	0.67	2.65	24.3
Nemo coal	7.91	50.6	32.6	2.21	1.18	0.23	2.82	6.1
Pewee coal	7.60	52.4	28.0	5.25	1.63	0.24	3.11	7.1
Richland coal	5.45	54.0	29.6	1.17	1.56	0.19	3.66	11.4
Rex coal	11.40	56.9	30.9	2.74	1.16	0.29	2.99	4.0
Walnut Mountain	9.28	55.8	30.5	2.68	1.14	0.28	2.94	4.0
	1.55	42.8	28.8	3.76	1.22	0.46	1.35	8.0
Mingo coal	6.61	34.9	21.1	1.64	1.06	0.23	2.86	35.0
Mingo coal	3.51	52.0	32.1	2.84	0.86	0.21	2.04	5.8
Sewickley coal	16.30	43.4	21.8	1.40	1.00	0.36	2.40	21.6
No. 6 Block coal	10.40	57.8	28.8	0.42	0.40	0.15	1.10	1.9
No. 6 Block coal	11.80	46.9	35.2	0.47	0.65	0.18	2.00	3.2
No. 5 Block coal	6.50	57.3	27.9	0.84	0.41	0.27	1.00	2.5
Little No. 5 Block coal	12.00	49.3	31.0	0.43	0.70	0.23	2.60	3.6
Stockton coal	25.60	44.5	24.7	1.40	0.84	0.25	2.40	4.3
Stockton coal	20.40	52.7	31.0	0.61	0.92	0.23	3.10	4.0
Stockton coal	23.50	44.9	27.8	1.40	0.86	0.29	3.00	3.1
Stockton coal	13.80	38.4	13.8	0.84	0.56	0.13	1.40	34.4
Coalburg coal	28.60	52.5	26.1	0.57	0.85	0.22	2.60	7.2
Coalburg coal	21.90	54.9	29.1	0.46	0.82	0.27	2.70	7.4
Coalburg coal	12.20	46.6	27.1	0.86	0.79	0.21	2.00	2.7
Coalburg coal	18.50	43.0	25.2	0.39	0.64	0.18	2.10	18.9

/ samples.

Coal	Ash % (525°C)	SiO_2/ash (%)	Al_2O_3/ash (%)	CaO/ash (%)	MgO/ash (%)	Na_2O/ash (%)	K_2O/ash (%)	Fe_2O_3/ash (%)
Coalburg coal	30.20	54.4	24.5	0.30	0.94	0.19	3.30	3.9
Winifrede coal	7.10	53.1	22.4	2.20	0.88	0.33	0.22	2.6
Coalburg coal	32.80	47.2	27.3	0.16	0.79	0.24	2.80	2.5
Stockton coal	6.10	44.8	33.7	1.40	0.75	0.35	1.60	2.9
Stockton coal	10.30	58.8	32.8	0.50	0.34	0.27	0.91	2.1
Stockton coal	9.00	56.5	37.0	0.53	0.51	0.31	1.70	1.9
Williamson coal	11.30	58.4	25.9	0.50	0.39	0.31	1.40	9.6
No. 5 Block coal	13.40	58.3	30.3	0.67	0.52	0.16	1.60	6.0
Coalburg coal	7.80	48.1	30.1	1.20	0.91	0.49	3.00	3.5
Coalburg coal	27.90	56.4	25.8	1.20	0.90	0.19	2.80	7.4
Coalburg coal	38.70	60.1	25.5	0.47	1.20	0.26	3.90	4.7
Coalburg coal	8.00	58.5	29.5	0.87	0.49	0.35	1.00	6.8
Winifrede coal	12.00	55.3	30.6	0.66	0.51	0.22	1.40	2.3
Winifrede coal	4.80	44.4	28.5	1.90	1.10	0.50	1.90	9.1
Coalburg coal	6.10	49.5	33.1	1.20	0.81	0.32	1.90	6.0
Coalburg coal	20.50	55.4	31.5	0.26	0.93	0.20	3.20	3.8
No. 6 Block coal	25.70	47.0	32.6	0.38	0.84	0.24	3.50	4.5
No. 6 Block coal	13.50	49.9	31.3	0.58	0.68	0.17	1.80	6.2
Redstone coal	9.30	37.3	20.2	6.99	1.07	0.24	1.55	21.5
Bakerstown coal	25.80	60.2	27.1	0.86	0.97	0.21	2.16	3.7
Upper Freeport coal	15.80	50.6	26.0	2.24	0.99	0.24	2.17	12.7
No. 5 Block coal	22.90	70.0	24.1	0.40	0.19	0.07	0.26	1.5
No. 5 Block coal	22.80	57.4	32.9	0.26	0.71	0.20	3.07	1.9
Stockton coal	13.20	63.8	26.8	0.64	0.49	0.17	1.35	3.1
Winifrede coal	8.00	58.0	26.5	1.57	1.97	0.39	1.66	3.5
Cedar Grove coal	9.20	53.2	24.0	1.16	0.78	0.34	1.82	16.0
Powellton coal	20.00	54.2	29.8	0.23	1.57	0.43	4.82	6.9

/ samples.

Coal	Ash % (525°C)	SiO_2/ash (%)	Al_2O_3/ash (%)	CaO/ash (%)	MgO/ash (%)	Na_2O/ash (%)	K_2O/ash (%)	Fe_2O_3/ash (%)
Coalburg coal	18.50	65.3	26.9	0.26	0.46	0.27	1.77	2.1
Winifrede coal	14.10	65.8	26.6	0.72	0.53	0.18	1.53	1.5
Waynesburg coal	22.10	58.2	28.2	0.57	0.91	0.28	2.74	6.1
Waynesburg coal	16.80	52.6	23.2	0.41	0.70	0.25	2.52	17.7
Sewickley coal	11.10	58.3	26.8	0.90	0.72	0.40	2.20	6.7
Sewickley coal	13.30	49.5	22.8	1.20	0.80	0.51	1.98	20.4
Sewickley coal	11.90	50.6	24.4	0.87	0.77	0.50	2.10	20.5
Redstone coal	5.80	27.4	20.0	12.40	1.04	0.20	1.40	21.9
Bakerstown coal	36.20	58.2	29.4	0.67	1.35	0.23	3.12	3.3
Bakerstown coal	5.90	51.8	31.8	2.69	1.13	0.52	1.59	4.6
Upper Freeport coal	15.90	47.4	26.8	1.12	0.96	0.23	2.58	18.8
Upper Freeport coal	16.00	54.3	27.8	2.48	1.12	0.28	2.63	7.1
Upper Freeport coal	14.00	36.5	24.0	2.33	0.54	0.25	1.28	32.2
Cedar Grove coal	9.20	53.7	23.7	1.12	0.79	0.34	1.90	15.7
Stockton coal	13.40	61.3	29.5	0.69	0.74	0.24	2.31	2.0
No. 6 Block coal	3.30	50.5	37.2	2.24	0.62	0.38	0.59	3.2
No. 5 Block coal	9.70	60.8	29.0	0.74	1.16	0.22	3.58	3.5
Upper No. 5 Block coal	16.40	62.7	28.7	0.57	0.87	0.18	2.83	3.3
Stockton coal	25.50	55.6	31.6	0.26	1.15	0.23	4.82	8.7
Stockton coal	14.70	54.4	31.2	0.47	1.01	0.23	3.92	5.0
Stockton coal	5.70	62.4	25.6	1.14	0.48	0.26	1.14	2.8
Stockton coal	4.00	60.3	30.3	1.15	0.32	0.44	0.32	1.3
Coalburg coal	24.50	53.9	26.6	0.28	1.08	0.17	4.14	5.1
Coalburg coal	18.60	54.2	36.1	0.58	0.89	0.35	3.32	2.3
Stockton coal	16.40	59.6	31.3	0.62	0.73	0.35	3.10	2.1
Coalburg coal	23.20	61.1	29.7	0.31	0.87	0.27	3.06	2.6
Coalburg coal	18.50	72.4	20.4	0.42	0.61	0.44	2.01	2.4

/ samples.

Coal	Ash % (525°C)	SiO_2/ash (%)	Al_2O_3/ash (%)	CaO/ash (%)	MgO/ash (%)	Na_2O/ash (%)	K_2O/ash (%)	Fe_2O_3/ash (%)
Coalburg coal	7.40	43.7	33.8	1.16	0.84	2.12	2.42	12.7
Coalburg coal	7.10	47.8	36.7	1.18	0.83	1.87	2.70	3.9
Coalburg coal	9.50	56.3	27.6	0.76	0.72	0.44	2.55	7.1
Coalburg coal	7.00	48.6	33.8	1.17	0.46	1.59	0.91	6.4
Coalburg coal	10.30	50.2	36.3	0.86	0.73	0.26	3.14	5.4
Coalburg coal	3.80	46.4	31.1	3.00	0.90	1.35	0.62	14.4
Winifrede coal	3.20	54.2	34.3	2.23	1.11	0.51	2.05	2.9
No. 5 Block coal	6.50	57.8	31.1	0.99	0.33	0.12	0.62	1.8
Coalburg coal	24.60	58.5	29.0	0.32	1.18	0.19	4.48	5.4
Stockton coal	11.00	53.9	29.8	0.85	0.67	0.21	1.80	3.2
Coalburg coal	16.30	54.4	27.2	0.52	0.53	0.20	1.60	1.9
No. 5 Block coal	10.50	49.8	25.6	0.71	0.56	0.18	1.70	1.9
No. 6 Block coal	37.60	69.9	21.8	0.20	0.58	0.16	2.60	2.4
Stockton coal	16.00	54.9	27.5	0.57	0.75	0.19	2.00	4.0
Stockton coal	11.40	52.2	26.4	0.63	0.51	0.19	1.30	1.4
No. 5 Block coal	11.80	50.3	26.8	0.98	0.82	0.25	2.30	4.0
Coalburg coal	32.90	63.4	24.7	0.22	0.96	0.20	3.10	3.4
Coalburg coal	16.90	57.9	29.8	0.55	1.00	0.29	2.70	3.2
Coalburg coal	22.60	50.9	28.0	0.39	0.86	0.22	2.80	4.3
Coalburg coal	14.00	51.4	24.2	0.36	0.80	0.44	1.60	3.4
Coalburg coal	23.90	51.6	24.9	0.42	0.91	0.19	2.90	2.9
Coalburg coal	11.10	59.8	23.2	0.59	0.73	0.21	1.90	2.7
Coalburg coal	28.80	60.4	28.7	0.32	0.99	0.29	3.40	2.6
Coalburg coal	15.60	60.6	25.9	0.42	0.88	0.31	2.90	2.8
Stockton coal	4.80	46.7	29.2	1.40	0.69	0.34	1.40	2.1
Stockton coal	23.10	54.3	29.3	0.28	1.30	0.33	4.70	5.2
Stockton coal	18.00	50.9	28.9	0.33	1.00	0.32	3.70	2.8

/ samples.

Coal	Ash % (525°C)	SiO_2/ash (%)	Al_2O_3/ash (%)	CaO/ash (%)	MgO/ash (%)	Na_2O/ash (%)	K_2O/ash (%)	Fe_2O_3/ash (%)
Upper No. 5 Block coal	8.00	70.2	16.0	1.30	0.86	0.24	0.45	1.2
Stockton coal	12.90	53.0	31.6	0.54	1.20	0.30	4.00	3.2
No. 5 Block coal	6.80	51.1	27.4	0.90	0.74	0.22	2.00	2.4
Stockton coal	6.90	51.6	30.2	0.93	0.86	0.32	2.80	2.5
Coalburg coal	31.80	54.7	25.9	0.30	1.20	1.10	4.80	2.7
Coalburg coal	43.20	58.4	26.7	0.22	0.90	0.64	3.80	3.4
Coalburg coal	10.30	52.9	29.6	0.60	0.86	0.53	3.00	3.0
Coalburg coal	31.50	58.1	26.8	0.31	1.00	0.38	4.50	2.7
Coalburg coal	26.10	54.2	32.6	1.10	1.00	0.48	3.20	3.7
Coalburg coal	14.20	49.5	23.9	3.40	0.85	0.36	2.00	9.6
Stockton coal	21.90	60.8	23.7	2.70	0.32	0.26	0.80	5.4
Middle Kittanning coal	23.10	36.8	27.2	5.20	0.96	0.29	2.40	15.3
Coalburg coal	15.50	61.7	26.7	0.40	0.90	0.28	3.20	2.9
Stockton coal	17.90	55.4	31.6	0.34	1.10	0.28	4.20	3.0
Cedar Grove coal	9.94	51.3	24.4	1.24	0.94	0.19	2.48	12.0
Dean (Fireclay) coal	11.00	50.2	32.0	1.70	1.24	0.29	2.65	7.6
Cedar Grove coal	6.49	41.1	21.4	4.00	1.02	0.59	0.84	22.5
Winifrede coal	5.36	44.4	31.0	2.14	1.27	0.35	3.17	7.8
Winifrede coal	3.48	44.9	28.9	3.97	1.32	0.47	1.61	6.7
Sewell coal	11.30	40.2	28.3	0.37	1.09	0.39	3.19	22.5
Coalburg coal	8.43	49.1	36.6	0.97	0.71	0.27	1.74	2.9
Sewell coal	25.50	52.1	28.8	0.84	1.62	0.46	4.36	6.5
No. 2 Gas coal	11.10	46.8	29.0	3.07	1.65	0.43	4.28	6.0
Upper Kittanning coal	18.40	39.5	22.3	0.65	0.62	0.43	2.37	29.7
Coalburg coal	13.50	59.3	30.8	0.59	0.49	0.15	1.12	2.2
Eagle coal	16.90	51.9	30.2	2.14	1.35	0.53	3.33	3.4
Welch coal	29.20	51.0	34.6	0.92	0.57	0.24	1.72	1.9

/ samples.

Coal	Ash % (525°C)	SiO_2/ash (%)	Al_2O_3/ash (%)	CaO/ash (%)	MgO/ash (%)	Na_2O/ash (%)	K_2O/ash (%)	Fe_2O_3/ash (%)
Peerless coal	10.70	46.5	23.4	1.46	0.89	0.36	2.90	21.3
No. 2 Gas coal	14.40	43.6	26.6	1.82	1.54	0.48	4.62	13.8
Middle Kittanning coal	25.10	44.0	36.1	4.19	0.74	0.30	1.95	2.9
Lower Kittanning coal	16.90	28.9	28.0	6.34	0.57	0.17	1.08	22.5
Lower Kittanning coal	24.40	43.2	29.6	2.25	0.39	0.17	1.36	16.0
Redstone coal	10.70	39.9	23.2	2.15	0.59	0.22	1.58	26.0
Middle Kittanning coal	23.80	52.5	31.1	0.29	1.08	0.18	4.06	3.3
Sewickley coal	15.80	46.1	24.8	1.00	0.65	0.68	2.08	18.1
Redstone coal	13.00	46.6	23.4	1.60	0.64	0.30	1.98	21.9
Pittsburgh coal	10.50	37.4	20.2	6.38	1.13	0.91	1.27	21.6
Pittsburgh coal	8.15	28.5	15.8	9.39	1.33	0.93	1.03	27.3
No. 5 Block coal	16.20	40.4	29.1	9.08	0.81	0.16	1.78	6.6
No. 5 Block coal	24.90	46.8	36.4	0.44	0.57	0.19	2.11	6.9
Stockton coal	23.50	57.6	28.9	0.42	0.91	0.22	3.18	2.3
Little Chilton coal	9.10	51.4	33.6	0.70	0.94	0.30	2.35	4.3
No. 2 Gas coal	9.64	57.6	28.0	0.65	0.68	0.34	2.13	5.9
Lower Powellton coal	5.56	52.5	26.5	1.39	0.62	0.54	1.43	8.5
Sewell coal	17.80	55.8	26.2	0.27	1.59	0.52	4.12	8.3
Powellton coal	5.40	46.0	33.2	1.62	1.10	0.56	1.92	4.6
Stockton coal	9.62	53.9	33.3	0.92	0.58	0.16	1.13	2.5
Pittsburgh coal	9.24	41.7	20.2	2.07	0.88	0.69	1.10	27.4
Stockton coal	25.31	57.5	27.7	0.49	1.00	0.28	3.00	7.1
Stockton coal	11.27	54.6	28.8	2.86	0.61	0.23	1.89	3.8
Little No. 5 Block coal	6.37	50.8	30.1	2.48	0.53	0.18	1.31	5.6
Lower Kittanning coal	18.60	38.9	25.7	0.85	0.39	0.10	1.02	26.4
Sewell coal	15.55	58.4	31.1	1.76	0.40	0.61	0.70	4.8
Sewell coal	39.23	69.3	21.7	1.09	0.63	0.28	2.11	2.1

/ samples.

Coal	Ash % (525°C)	SiO_2/ash (%)	Al_2O_3/ash (%)	CaO/ash (%)	MgO/ash (%)	Na_2O/ash (%)	K_2O/ash (%)	Fe_2O_3/ash (%)
Sewell coal	7.96	42.7	30.4	6.92	1.29	0.82	2.02	4.5
Middle Kittanning coal	21.71	46.2	25.2	1.17	0.28	0.14	0.66	17.9
Middle Kittanning coal	32.02	62.8	24.7	2.60	0.51	0.14	1.70	2.3
Upper Kittanning coal	17.57	26.0	10.5	1.35	0.67	0.09	1.40	53.6
Brush Creek coal	48.60	48.5	18.9	0.40	1.23	0.14	2.66	22.6
Lower Mercer coal	30.40	65.1	23.9	0.28	0.20	0.21	0.54	9.9
Upper Mercer coal	11.21	55.5	34.2	0.94	1.18	0.29	3.34	3.4
Quakertown coal	28.12	46.1	24.5	0.59	1.14	3.16	3.19	21.2
Quakertown coal	31.79	17.3	7.7	0.43	0.17	0.06	0.56	68.5
Sewickley coal	18.67	54.5	19.8	2.40	1.47	0.58	2.60	12.5
Waynesburg coal	16.92	42.7	20.2	0.66	0.72	0.33	1.96	26.9
Waynesburg coal	21.84	49.3	22.2	0.45	0.88	0.36	2.63	22.0
Sewickley coal	13.89	42.0	18.1	5.60	3.51	0.49	2.12	19.1
Pittsburgh coal	9.27	58.8	24.5	1.78	0.61	0.79	1.75	9.2
Pittsburgh coal	7.73	48.7	24.6	1.48	0.72	0.37	1.50	18.8
Pittsburgh coal	9.43	44.2	19.7	2.06	0.88	0.68	1.12	28.6
Lower Freeport coal	24.02	45.0	25.4	0.57	0.52	0.11	1.72	22.0
Upper Freeport coal	17.11	47.7	22.0	0.60	0.46	0.14	1.41	24.9
Lower Kittanning coal	32.65	57.0	29.1	0.29	0.47	0.16	1.82	9.0
Coalburg coal	3.93	49.6	40.1	2.21	1.05	0.43	0.58	4.9
Coalburg coal	15.26	65.7	28.4	0.47	0.64	0.20	1.52	1.8
Coalburg coal	13.08	61.1	32.0	0.66	1.01	0.32	2.57	2.3
Coalburg coal	7.62	75.2	18.7	0.94	0.44	0.23	0.31	4.0
Coalburg coal	3.81	55.3	32.6	2.11	0.94	0.29	1.58	4.2
Coalburg coal	31.38	64.0	27.3	0.29	1.19	0.17	4.08	2.2
Coalburg coal	14.05	63.0	27.6	0.50	0.98	0.14	3.02	2.8
Coalburg coal	44.73	63.4	26.0	0.26	1.21	0.20	3.77	2.6

/ samples.

Coal	Ash % (525°C)	SiO_2/ash (%)	Al_2O_3/ash (%)	CaO/ash (%)	MgO/ash (%)	Na_2O/ash (%)	K_2O/ash (%)	Fe_2O_3/ash (%)
Coalburg coal	4.66	55.0	35.5	1.31	0.75	0.35	1.45	3.7
Coalburg coal	10.63	62.2	33.6	0.62	0.54	0.16	1.70	1.6
No. 5 Block coal	8.09	57.2	30.5	0.86	0.87	0.25	2.65	5.5
Coalburg coal	7.78	60.7	29.5	1.20	0.89	0.23	2.01	1.9
Coalburg coal	7.99	59.7	33.6	0.74	0.72	0.23	2.16	1.8
Coalburg coal	4.78	58.2	30.7	2.10	1.19	0.29	1.90	4.8
Upper Freeport coal	34.65	55.4	23.3	0.49	0.55	0.15	1.65	15.6
Upper No. 5 Block coal	28.74	25.6	11.8	0.93	0.38	0.10	1.02	53.6
Clarion coal	26.20	52.5	24.5	1.32	0.48	0.19	1.62	12.7
Chilton coal	18.15	42.8	22.1	0.77	0.87	0.27	1.87	24.9
Coalburg coal	13.53	57.0	25.3	0.79	1.02	0.25	2.56	9.5
Coalburg coal	45.04	63.7	26.4	0.27	1.24	0.20	3.80	2.7

TiO_2/ash (%)	P_2O_5/ash (%)	SO_3/ash (%)	Total oxides (%)
0.72	0.35		
1.30	0.70		
1.40	0.24		
1.30	0.28		
1.30	1.20		
0.74	0.78		
1.40	5.60		
0.66	4.40		
0.86	0.58		
0.86	2.40		
0.93	2.50		
1.10	0.78		
1.10	0.79		
1.40	1.00	11.30	91.25
1.40	1.00	10.80	90.30
1.40	1.00	11.70	91.59
1.50	1.10	11.20	84.16
1.40	1.20	10.20	92.05
1.40	1.10	10.30	92.05
1.30	1.00	12.40	89.36
1.30	0.96	12.30	91.24
1.50	0.75	11.40	94.79
1.50	0.66	10.70	91.14
1.40	0.70	11.40	88.66

TiO_2/ash (%)	P_2O_5/ash (%)	SO_3/ash (%)	Total oxides (%)
1.40	0.65	10.10	85.30
0.81	0.21	4.90	93.09
0.79	0.28	4.50	95.40
0.80	0.34	6.90	92.11
0.78	0.33	5.90	91.76
1.10	2.20	8.50	91.64
1.10	1.60	6.10	89.85
1.00	1.50	8.20	92.11
1.10	1.60	7.10	90.18
0.89	0.57	22.40	93.10
0.84	0.58	18.00	89.84
0.82	0.72	24.50	91.50
0.95	0.72	22.30	94.11
1.30	0.97	12.60	87.50
1.40	1.00	12.40	92.04
1.40	1.20	12.50	91.01
1.40	1.00	14.30	94.22
1.40	0.60	8.90	87.08
0.75	0.27	5.00	90.20
1.39	0.74	11.60	93.81
1.33	0.66	11.10	93.16
1.48	0.84	12.80	98.01
1.50	0.80	12.00	94.90
1.41	0.84	13.40	93.02
1.39	0.89	13.30	92.52
1.40	0.88	12.80	91.48
1.47	0.93	13.10	93.07

TiO_2/ash (%)	P_2O_5/ash (%)	SO_3/ash (%)	Total oxides (%)
1.42	0.84	13.80	95.87
1.43	0.84	13.30	94.12
1.39	0.84	13.50	93.73
1.39	0.90	13.20	91.10
1.48	0.94	14.20	94.87
1.43	0.92	13.10	92.31
1.43	0.91	13.80	93.52
1.42	0.98	13.60	93.03
1.38	0.86	12.60	90.87
1.43	0.82	13.30	93.18
1.38	0.84	12.70	92.45
1.48	0.89	11.20	91.46
1.44	0.81	10.50	90.84
1.45	0.87	11.60	92.12
1.40	0.99	11.70	92.42
1.38	0.86	11.40	93.44
1.44	0.92	11.90	95.57
1.42	0.82	12.00	92.91
1.34	0.88	12.60	93.60
1.41	1.05	10.80	94.51
1.42	1.11	11.20	97.58
1.45	1.11	10.90	99.06
1.46	0.93	14.00	97.70
1.49	0.85	11.60	96.36
1.45	1.18	10.90	94.42
1.50	1.17	11.70	96.36
1.39	1.14	11.20	92.62

TiO_2/ash (%)	P_2O_5/ash (%)	SO_3/ash (%)	Total oxides (%)
1.46	1.13	11.20	94.21
1.48	1.12	10.10	96.09
1.49	1.14	11.00	95.80
1.45	1.10	10.60	93.94
1.51	1.18	11.20	96.68
1.50	1.13	10.70	96.23
1.51	1.10	11.80	92.39
1.44	1.12	11.90	91.31
1.51	1.14	12.60	93.43
1.40	0.98	12.50	90.91
1.60	1.21	11.60	95.17
1.13	0.59	12.40	91.15
1.12	0.60	13.00	92.45
1.33	0.85	10.80	91.58
1.34	0.76	11.50	95.99
1.22	0.92	11.90	91.18
1.25	0.86	11.80	92.87
1.04	2.45	7.10	95.85
1.06	2.71	8.01	94.66
1.01	2.49	7.51	94.33
1.02	2.42	8.14	93.24
1.05	2.63	8.01	93.89
0.95	2.49	7.63	95.07
0.99	0.56	16.70	96.25
1.02	0.59	17.70	97.38
1.31	0.96	12.90	91.43
1.44	1.10	12.90	91.17

TiO_2/ash (%)	P_2O_5/ash (%)	SO_3/ash (%)	Total oxides (%)
1.44	1.13	11.60	90.65
1.42	1.08	10.90	92.62
0.63	0.04	13.20	89.85
0.70	0.05	12.00	88.76
0.62	0.06	19.10	87.26
1.06	0.12	7.22	89.11
1.03	0.46	8.37	91.69
0.55	0.03	23.40	93.47
0.74	0.12	15.30	92.92
0.59	0.24	19.30	91.27
0.56	0.05	19.40	92.14
0.57	0.12	4.96	88.86
0.53	0.08	2.92	95.80
0.70	<0.02	10.70	98.37
0.57	0.08	10.60	97.31
0.92	<0.02	2.40	98.33
0.73	<0.02	10.80	97.76
0.53	<0.02	9.70	94.77
1.00	<0.02	0.66	97.72
0.62	<0.02	0.57	93.15
1.80	<0.02	0.13	93.37
1.70	0.07	0.66	96.87
1.40	4.90	1.40	95.53
1.60	0.18	0.18	98.40

TiO_2/ash (%)	P_2O_5/ash (%)	SO_3/ash (%)	Total oxides (%)
0.80	1.30	5.30	86.96
1.10	1.90	5.20	100.17
0.74	2.30	6.80	96.13
0.70	0.92	4.00	95.10
0.82	2.80	3.90	94.82
0.79	0.59	2.70	97.37
0.74	1.70	19.90	93.52
0.78	2.60	12.10	96.67
0.85	1.40	4.30	96.88
0.94	1.70	7.40	96.53
1.20	0.54	0.36	97.93
1.10	3.70	4.60	93.88
1.40	0.89	5.00	94.06
0.83	0.97	11.30	92.60
0.95	0.66	8.60	91.39
0.81	0.74	10.20	91.93
0.79	2.60	6.00	92.51
0.90	1.20	7.40	89.64
0.86	0.36	2.40	91.65
1.50	0.35	0.87	94.58
1.00	<0.02	0.49	96.58
0.98	0.62	3.00	91.81
1.00	1.70	2.20	92.45
0.78	0.55	2.50	94.91
1.30	0.90	0.99	98.13
0.70	0.67	2.70	95.12
0.86	1.30	7.20	92.45

TiO_2/ash (%)	P_2O_5/ash (%)	SO_3/ash (%)	Total oxides (%)
0.88	0.94	3.10	93.52
0.80	0.59	2.20	85.30
0.86	0.63	2.50	88.06
0.65	0.42	3.10	93.99
0.67	0.23	3.80	92.63
0.90	0.88	8.00	93.70
0.69	3.20	19.90	87.95
0.90	1.00	9.90	93.94
0.89	0.93	12.60	89.18
0.83	1.20	11.30	91.58
0.69	0.22	15.10	95.71
0.83	2.10	15.10	96.31
0.84	1.90	15.70	89.65
0.49	0.76	15.10	85.39
0.81	1.40	13.10	93.17
0.97	2.10	2.10	86.46
1.00	2.20	2.70	86.52
0.89	0.66	2.30	94.82
0.28	0.06		
0.36	0.13		
0.60	0.10		
0.32	0.38		
0.35	0.24	4.70	90.41
0.38	0.21	13.20	89.72

TiO_2/ash (%)	P_2O_5/ash (%)	SO_3/ash (%)	Total oxides (%)
0.43	0.63	7.94	94.73
0.84	0.10	3.44	93.83
0.91	0.08		
0.64	0.12		
1.40	0.33		
0.64	0.77		
0.79	0.44		
0.90	0.28		
0.85	0.66		
0.89	0.42		
0.99	0.39		
0.91	0.09		
0.87	0.06		
0.82	0.36		
0.98	0.65		
0.95	0.14		
0.53	0.11		
0.85	0.12		
0.88	1.10		
0.36	0.22		
0.40	0.31		
0.54	0.14		
0.71	0.13		
0.29	0.12		
1.20	0.13		
0.96	0.16		
0.87	0.14		

TiO_2/ash (%)	P_2O_5/ash (%)	SO_3/ash (%)	Total oxides (%)
0.50	0.17		
0.67	0.07		
0.65	0.26		
0.95	0.18		
1.20	0.60		
0.75	0.10		
0.71	0.19		
1.39	0.33	0.99	96.62
1.40	4.69	2.14	97.57
1.44	2.11	1.62	97.41
1.08	0.08	0.49	97.27
1.40	0.14	0.40	97.13
1.21	0.88	0.83	97.71
1.40	1.90	1.00	96.88
0.93	0.08	1.48	97.58
1.54	0.08	0.49	96.98
0.72	0.06	1.21	95.92
1.68	1.09	0.89	96.19
1.23	0.11	0.47	95.57
1.72	0.56	0.39	97.54
0.75	2.02	1.87	95.47
0.48	0.15	0.50	94.76
0.58	0.18	0.48	97.69
0.30	0.27	0.73	94.33
0.57	0.42	1.09	97.72
1.24	0.75	0.65	97.50
1.30	0.73	0.52	96.83

TiO_2/ash (%)	P_2O_5/ash (%)	SO_3/ash (%)	Total oxides (%)
0.46	1.65	1.64	96.07
0.63	2.70	2.03	93.52
0.34	1.49	1.92	93.59
0.57	2.70	2.32	93.30
0.65	0.57	0.94	94.95
1.02	0.81	1.16	93.72
1.15	0.07	1.80	92.27
1.36	0.03	0.97	95.96
1.25	0.02	0.64	95.09
1.34	< 0.02	0.45	94.74
1.20	0.02	0.57	96.95
1.26	< 0.02	0.42	96.45
1.27	0.06	0.97	99.66
1.33	0.07	0.93	99.76
1.37	1.10	1.04	99.51
0.57	0.20	0.47	100.11
1.05	0.90	1.29	98.62
1.20	0.06	1.70	96.08
1.30	0.06	1.20	98.95
1.20	0.05	1.30	98.47
1.30	0.04	0.88	97.40
1.20	0.07	1.10	99.53
1.20	0.07	0.84	99.91
0.62	0.08	2.60	102.06
0.49	0.09	1.80	100.37
0.62	0.07	1.30	89.84
0.68	0.06	1.00	96.46

TiO_2/ash (%)	P_2O_5/ash (%)	SO_3/ash (%)	Total oxides (%)
1.00	0.10	1.30	93.62
1.10	0.09	0.84	100.74
1.40	0.11	0.93	101.17
2.40	0.06	1.10	93.08
1.40	0.08	1.10	102.58
1.40	0.07	0.58	105.93
1.10	0.05	1.60	94.36
1.40	0.07	0.78	100.71
1.20	0.14	1.50	95.12
1.30	0.12	1.00	97.74
1.10	0.14	2.10	96.12
1.30	0.09	0.63	98.09
0.69	0.43	2.30	89.54
0.82	0.53	1.20	93.20
0.46	0.08	2.70	82.57
1.00	0.13	1.50	95.50
1.20	0.62	1.40	94.36
1.30	0.71	0.46	97.63
0.70	0.09	0.45	93.80
0.96	0.09	0.23	97.34
0.36	0.09	1.70	95.97
0.51	0.08	1.30	106.28
0.48	0.33	0.87	96.03
0.62	0.37	0.43	93.20
0.83	0.40	0.59	100.76
0.88	0.31	0.30	103.29
1.00	0.08	0.22	95.81

TiO_2/ash (%)	P_2O_5/ash (%)	SO_3/ash (%)	Total oxides (%)
1.20	0.05	1.50	93.14
0.79	0.07	1.30	103.71
1.40	0.10	0.96	83.75
1.70	0.10	0.69	92.01
1.50	0.13	0.84	94.57
1.60	0.15	0.87	93.28
1.70	1.30	0.95	89.27
1.80	1.40	0.87	90.72
0.87	0.11	1.30	86.66
0.99	0.09	0.94	92.70
1.50	0.12	0.43	93.84
1.60	0.13	0.26	96.12
1.10	0.19	1.60	93.50
1.30	0.20	0.66	91.94
0.60	0.23	1.30	66.67
1.10	0.43	0.44	94.16
0.70	0.15	4.40	92.54
0.74	0.19	4.40	93.57
0.72	0.18	4.00	90.89
0.66	0.16	3.70	84.90
0.69	0.16	4.00	90.26
1.30	0.10	0.96	88.26
1.40	0.12	1.00	92.02
1.30	0.13	1.10	92.43
0.65	0.06	5.20	89.65
0.88	0.07	2.00	91.44
1.00	0.05	3.00	89.28

TiO_2/ash (%)	P_2O_5/ash (%)	SO_3/ash (%)	Total oxides (%)
1.10	0.04	2.10	89.91
0.54	0.08	3.20	94.98
1.00	0.05	1.40	90.47
0.55	0.08	0.80	90.25
1.10	0.07	0.85	92.85
1.10	0.08	1.00	90.81
1.20	0.05	0.71	92.20
1.50	0.14	0.88	91.30
0.56	0.06	2.60	90.97
1.30	0.12	0.26	101.52
1.20	0.14	0.65	102.14
1.20	0.12	0.35	96.73
1.50	0.12	0.10	102.62
1.40	0.12	0.29	105.21
1.30	0.13	0.27	97.60
1.00	0.16	0.74	99.58
1.20	0.12	0.52	98.64
1.40	0.13	0.43	101.26
0.78	0.18	1.60	102.11
0.75	0.17	1.40	103.80
0.88	0.17	1.50	108.84
<0.02	0.02	59.80	108.15
1.00	0.15	0.38	97.42
0.87	0.10	0.81	85.01
1.70	0.10	0.74	90.99
1.10	0.22	0.70	96.46
1.50	0.24	0.49	95.39

TiO_2/ash (%)	P_2O_5/ash (%)	SO_3/ash (%)	Total oxides (%)
1.70	0.26	0.48	97.94
1.80	0.34	0.48	91.59
0.64	0.74	0.69	87.87
1.70	1.80	1.20	91.12
0.94	0.13	1.80	92.23
1.20	0.12	1.80	92.64
0.78	0.14	1.60	96.10
1.40	0.15	2.20	94.79
0.70	0.17	3.50	84.77
1.10	0.17	2.70	80.72
1.10	0.12	1.10	90.84
1.10	0.14	0.73	94.06
1.10	0.14	0.78	89.00
1.20	0.15	1.10	88.96
1.30	0.12	0.79	85.52
1.20	0.12	0.86	92.34
1.10	0.10	0.62	93.05
1.20	0.14	0.98	90.98
1.20	0.13	0.71	93.60
1.10	0.10	2.10	89.72
1.40	0.10	0.98	94.27
1.10	0.07	1.60	90.76
1.30	0.07	1.10	92.53
0.65	0.11	1.40	91.27
0.93	0.12	0.94	91.57
0.94	0.07	1.50	88.49
1.10	0.07	1.00	96.00

TiO_2/ash (%)	P_2O_5/ash (%)	SO_3/ash (%)	Total oxides (%)
1.30	0.16	0.78	95.00
0.95	0.08	1.60	94.11
1.24	0.86	1.71	93.30
1.39	1.24	2.55	95.27
1.40	0.09	2.70	92.75
1.48	0.12	3.26	94.31
1.49	0.11	1.34	94.34
1.60	0.13	1.35	94.60
1.50	0.11	1.31	94.18
1.50	0.13	0.98	95.14
1.19	0.14	0.78	93.40
1.26	0.07	0.63	91.19
1.18	0.11	0.99	95.35
1.02	0.10	1.86	89.47
1.45	0.06	0.19	94.64
1.56	0.10	0.29	96.52
1.60	0.15	1.24	93.51
1.47	0.14	0.76	94.44
1.61	0.15	2.90	88.34
1.55	0.10	0.45	93.79
1.52	0.13	0.65	95.77
0.61	0.29	0.68	93.02
0.73	0.13	1.15	96.58
1.52	0.10	0.45	92.87
1.51	0.62	0.56	96.26
1.04	0.40	0.89	101.34
1.06	0.05	1.02	96.11

TiO_2/ash (%)	P_2O_5/ash (%)	SO_3/ash (%)	Total oxides (%)
1.13	0.11	1.56	100.75
1.17	0.08	1.76	100.36
1.11	0.12	1.55	99.24
0.71	0.13	2.37	90.64
1.18	0.13	1.52	98.78
1.24	0.12	1.47	99.52
1.31	0.11	0.96	98.60
1.32	0.18	0.98	98.82
1.37	0.15	0.94	98.42
1.04	1.30	1.45	98.98
1.16	1.71	1.51	97.45
0.81	0.38	0.96	98.12
1.13	0.10	0.99	97.40
1.02	0.08	1.00	100.98
0.80	0.15	1.19	100.46
0.62	0.12	1.00	96.36
0.97	0.13	0.81	100.10
0.67	0.10	1.39	93.22
0.94	0.10	1.03	100.09
0.93	0.11	1.06	97.47
1.25	0.13	1.16	98.06
0.84	0.14	1.13	99.81
0.98	0.14	0.94	99.91
0.56	0.12	1.69	100.50
1.01	0.12	1.02	103.14
0.88	0.15	1.92	97.86
0.95	0.17	1.60	98.78

TiO_2/ash (%)	P_2O_5/ash (%)	SO_3/ash (%)	Total oxides (%)
1.06	0.11	1.04	100.70
1.10	0.73	1.37	98.65
0.91	0.09	0.74	100.90
0.93	0.08	0.65	100.33
0.95	0.10	0.47	99.88
0.95	0.10	0.37	99.30
0.69	0.15	1.41	96.50
0.82	0.13	0.76	97.07
0.99	0.09	0.83	97.29
1.04	0.07	0.82	97.64
0.76	0.09	2.02	97.87
0.78	0.10	1.36	99.15
1.11	0.08	2.35	98.11
1.06	0.12	3.16	100.39
0.83	0.66	3.36	102.76
0.72	0.05	1.88	95.85
0.43	0.08	11.77	100.77
0.46	0.08	2.31	94.31
0.74	1.10	2.96	105.17
1.01	0.18	1.70	98.79
0.38	0.10	6.85	96.86
0.97	0.23	1.88	98.10
0.97	0.10	3.33	100.94
1.12	0.05	1.96	98.38
0.64	0.06	3.95	98.47
0.74	0.10	3.52	98.41
0.68	0.36	3.44	100.20

TiO_2/ash (%)	P_2O_5/ash (%)	SO_3/ash (%)	Total oxides (%)
0.81	0.07	1.40	98.29
0.67	0.83	3.16	98.63
0.59	4.85	3.46	102.19
0.75	0.36	1.92	101.21
1.14	0.07	1.05	100.72
0.48	0.05	2.38	96.63
0.82	0.18	2.03	101.21
0.68	0.41	3.88	97.88
0.81	0.26	2.52	97.22
0.75	0.26	1.04	101.66
0.79	0.69	1.54	96.88
1.20	0.06	1.97	97.26
1.15	0.30	0.85	96.72
0.95	0.11	1.88	98.07
1.60	0.19	2.10	95.78
0.30	0.21	0.86	87.83
1.60	0.18	2.10	93.94
1.70	0.18	2.20	95.47
1.70	0.24	2.30	95.26
1.60	0.31	2.80	94.08
1.80	0.29	2.90	95.71
1.50	0.27	2.90	90.71
1.10	0.11	1.70	85.15
1.20	0.12	0.95	93.94

TiO_2/ash (%)	P_2O_5/ash (%)	SO_3/ash (%)	Total oxides (%)
0.64	0.13	4.00	92.97
1.00	0.23	5.70	92.40
1.70	0.17	2.90	93.18
2.30	0.18	0.88	93.84
1.80	0.16	0.73	88.59
0.32	0.20	2.80	90.76
1.40	0.14	2.00	92.50
1.60	0.17	<0.02	97.80
1.70	0.17	<0.02	100.92
1.70	0.16	<0.02	99.75
1.60	0.16	0.21	97.93
1.50	0.15	0.07	91.91
1.70	0.15	<0.02	99.08
1.60	0.15	<0.02	96.56
1.50	0.15	<0.02	92.07
1.60	0.15	<0.02	96.42
2.00	0.36	0.21	97.90
2.00	0.35	0.22	97.89
2.00	0.43	0.28	96.79
1.80	0.40	0.24	89.25
1.90	0.66	0.61	96.38
2.00	0.50	0.40	98.57
1.60	0.15	<0.02	100.90
1.50	0.14	<0.02	84.77
2.10	0.43	0.29	101.99
0.73	0.24	0.64	97.06
0.75	0.26	0.63	100.23

TiO_2/ash (%)	P_2O_5/ash (%)	SO_3/ash (%)	Total oxides (%)
1.74	0.43	3.41	99.24
1.23	0.15	2.20	100.71
1.59	0.20	1.05	100.43
1.85	0.21	0.52	101.87
2.05	0.28	0.54	101.02
1.71	0.17	0.86	99.80
0.87	0.26	0.82	104.14
1.29	0.14	1.38	96.70
1.02	0.43	0.96	98.55
1.34	0.28	1.38	98.09
1.03	0.34	1.31	102.92
1.19	0.19	0.46	99.41
1.04	0.28	0.82	99.78
1.32	0.19	2.00	99.46
1.18	0.50	2.60	96.83
1.46	0.14	1.08	100.09
1.10	0.24	1.53	99.67
1.06	1.41	1.20	101.14
1.31	0.53	1.92	99.67
2.47	1.37	2.23	98.02
1.22	0.21	0.53	102.05
1.37	0.45	1.46	96.56
1.55	0.56	1.06	97.67
1.10	0.23	1.13	95.61
1.14	0.28	1.07	96.18
1.27	0.61	1.20	97.04
1.05	0.12	1.64	96.04

TiO_2/ash (%)	P_2O_5/ash (%)	SO_3/ash (%)	Total oxides (%)
1.23	0.24	0.65	96.91
1.23	0.17	0.65	96.88
1.20	0.29	1.62	96.60
1.24	0.16	0.63	97.39
1.42	0.87	2.05	99.08
1.24	0.35	2.97	105.49
1.58	0.58	2.23	100.13
0.95	0.15	2.61	101.48
1.14	0.13	1.53	104.38
1.86	2.18	2.06	105.09
1.85	2.19	2.12	103.51
2.02	0.18	5.12	93.67
0.77	0.67	2.74	100.96
1.43	1.41	2.67	101.40
0.94	0.09		
2.00	0.04		
1.60	0.15		
2.00	0.06		
1.10	0.06		
1.10	0.37		
1.80	0.06		
1.20	0.21		
0.68	0.06		
1.30	0.06		
1.40	0.03		
1.40	0.05		
1.00	0.05		

TiO_2/ash (%)	P_2O_5/ash (%)	SO_3/ash (%)	Total oxides (%)
1.10	0.05		
1.90	0.03		
1.30	0.05		
1.00	0.70		
2.40	0.05		
2.50	0.03		
2.00	0.04		
2.60	0.05		
0.91	0.04		
1.40	0.06		
1.20	0.04		
1.90	0.04		
1.70	0.05		
1.80	0.04		
1.10	0.18		
1.60	0.07		
1.50	0.06		
1.80	0.06		
0.92	0.94	6.46	97.16
1.25	0.46	0.75	97.69
1.00	0.31	2.30	98.56
2.05	0.36	0.47	99.35
1.61	< 0.02	0.23	98.32
1.94	0.38	0.57	99.18
1.30	0.08	3.93	98.95
1.16	0.06	1.75	100.27
0.99	0.03	0.58	99.56

TiO_2/ash (%)	P_2O_5/ash (%)	SO_3/ash (%)	Total oxides (%)
1.56	< 0.02	0.36	98.96
1.56	0.06	1.00	99.49
1.16	0.44	0.41	99.03
1.08	0.04	0.48	98.98
1.39	0.16	1.15	98.73
0.99	0.18	1.29	99.65
1.05	0.25	1.16	102.20
0.87	0.21	14.20	99.63
1.25	0.65	0.28	98.45
1.62	0.44	3.74	99.92
1.24	0.49	1.33	100.95
1.11	0.95	2.01	99.74
0.63	0.37	2.70	100.80
1.10	0.06	1.72	100.12
1.62	0.44	0.74	99.58
1.76	0.06	3.54	100.11
0.99	0.05	1.06	101.11
1.54	0.02	0.67	101.37
1.11	< 0.02	0.38	103.86
1.20	< 0.02	0.63	98.06
1.56	< 0.02	1.72	97.05
1.60	< 0.02	1.78	97.47
1.23	< 0.02	0.42	92.87
1.82	0.22	0.39	100.20
1.75	0.46	0.62	100.63
1.36	0.05	0.35	99.63
1.15	< 0.02	0.66	100.46

TiO_2/ash (%)	P_2O_5/ash (%)	SO_3/ash (%)	Total oxides (%)
1.29	0.17	2.15	100.35
2.17	0.36	2.10	99.64
0.97	0.07	1.35	97.87
2.13	0.76	1.88	97.74
1.48	0.05	1.30	99.70
1.34	0.05	4.70	103.86
1.74	0.04	3.35	102.42
2.90	< 0.02	1.36	97.02
1.31	< 0.02	0.44	100.85
2.00	0.09	0.87	93.39
1.90	0.04	0.80	89.09
2.30	0.06	0.80	83.61
1.70	0.03	0.20	99.57
1.80	0.03	0.96	92.70
1.60	0.07	0.83	85.13
1.70	0.07	1.40	88.62
1.20	<0.02	0.49	97.67
1.40	0.05	0.71	97.60
1.60	0.07	0.60	89.74
1.80	<0.02	0.54	84.54
1.20	0.15	0.70	85.87
2.00	0.10	0.84	92.07
1.40	<0.02	0.30	98.40
1.40	<0.02	0.51	95.72
1.30	<0.02	2.10	85.23
0.96	0.02	0.59	96.98
1.50	<0.02	0.60	90.05

TiO_2/ash (%)	P_2O_5/ash (%)	SO_3/ash (%)	Total oxides (%)
1.80	0.02	3.00	95.07
1.30	0.03	0.76	95.93
1.60	0.07	1.50	87.93
1.30	0.05	1.30	91.86
1.10	0.02	0.48	92.30
1.40	<0.02	0.31	95.77
1.50	<0.02	0.90	92.89
1.40	<0.02	0.40	95.59
1.70	0.04	0.93	98.95
1.70	0.06	2.20	93.57
2.40	0.10	1.20	97.68
1.70	0.65	3.50	94.00
1.40	0.05	0.47	98.00
1.70	<0.02	0.58	98.20
1.58	0.10	1.78	96.01
1.56	0.21	2.31	99.73
0.87	0.09	5.94	98.36
1.22	0.12	3.30	94.73
1.03	0.10	5.41	94.43
0.89	0.11	0.75	97.79
1.89	0.14	1.28	95.63
1.14	0.07	1.10	96.99
1.14	0.11	2.83	95.28
1.24	0.09	0.98	97.87
1.62	0.06	0.82	97.13
1.52	0.06	1.45	95.87
2.29	0.79	0.34	94.36

TiO_2/ash (%)	P_2O_5/ash (%)	SO_3/ash (%)	Total oxides (%)
1.70	0.10	2.26	100.86
1.11	0.15	2.91	96.63
1.33	0.63	1.83	93.94
0.82	1.56	3.20	93.14
1.36	0.08	1.42	95.83
1.11	0.45	2.69	97.89
1.69	0.07	0.54	94.78
1.24	0.55	0.98	96.18
0.94	0.14	1.39	98.89
1.04	0.23	6.44	96.60
0.79	0.25	7.87	93.19
1.26	0.10	3.82	93.10
1.68	0.06	0.54	95.67
1.54	0.04	0.46	95.60
1.72	0.06	1.00	96.40
1.91	0.05	0.84	98.12
2.16	0.11	2.07	95.77
1.06	0.06	0.57	98.53
1.99	0.05	2.41	93.50
2.07	0.11	1.23	95.91
1.04	0.10	3.07	98.26
1.18	0.05	0.71	98.96
1.14	0.06	1.61	95.56
1.18	0.10	3.54	95.76
0.87	0.47	1.20	95.90
0.62	0.18	2.18	100.73
0.89	0.03	0.66	98.78

TiO_2/ash (%)	P_2O_5/ash (%)	SO_3/ash (%)	Total oxides (%)
0.88	0.16	5.19	94.91
1.75	0.73	1.63	95.66
2.29	0.25	1.10	98.34
0.47	0.42	1.93	96.44
0.84	0.03	0.92	96.22
2.25	0.03	0.35	102.72
1.15	0.10	1.16	101.27
0.82	0.06	0.98	101.74
0.41	0.05	0.77	95.97
0.82	0.03	1.23	95.94
0.90	0.24	1.01	95.61
0.92	0.09	0.69	99.52
0.97	0.03	6.80	98.72
1.37	0.19	2.69	101.65
1.08	0.20	2.18	99.64
1.02	0.10	3.28	101.64
1.36	0.50	0.70	97.88
0.98	0.17	1.03	99.39
2.06	0.16	0.53	100.53
0.61	0.08	3.34	102.87
1.62	0.07	0.56	100.99
1.34	0.04	0.75	102.12
1.34	0.06	1.40	102.61
0.88	0.06	3.20	101.15
1.18	0.04	0.22	100.70
1.11	0.09	0.61	99.80
1.19	0.04	0.14	98.81

TiO_2/ash (%)	P_2O_5/ash (%)	SO_3/ash (%)	Total oxides (%)
0.88	0.07	2.08	101.06
1.80	0.07	0.90	103.18
1.15	0.09	1.24	100.34
1.69	0.06	1.52	99.66
1.14	0.06	0.79	100.95
0.90	0.08	2.57	102.72
1.68	0.25	0.83	99.90
0.42	0.39	1.33	95.56
1.66	2.17	1.07	98.21
0.83	0.06	1.36	95.83
1.39	0.06	1.29	99.12
1.21	0.04	0.14	99.67

Table 3. -- Contents of moisture, ash and major, minor and trace elements (remnant moisture ba
[blank space indicates no data or not analyzed]

Job number	Laboratory number	Field number	State	County	Formation
Northern Great Plains Province					
ERP00101	E-173222	44-23513	Wyoming	Campbell	Ft. Union Formation
ERP00101	E-173223	44-23514	Wyoming	Campbell	Ft. Union Formation
ERP00101	E-173224	44-23515	Wyoming	Campbell	Ft. Union Formation
ERP00101	E-173225	44-23516	Wyoming	Campbell	Ft. Union Formation
ERP00101	E-173226	44-23517	Wyoming	Campbell	Ft. Union Formation
ERP00101	E-173227	44-23518	Wyoming	Campbell	Ft. Union Formation
ERP00101	E-173228	44-23519	Wyoming	Campbell	Ft. Union Formation
ERP00101	E-173229	44-23520	Wyoming	Campbell	Ft. Union Formation
ERP00101	E-173230	44-23521	Wyoming	Campbell	Ft. Union Formation
ERP00101	E-173231	Silo 2A	Wyoming	Campbell	Ft. Union Formation
ERP00101	E-173232	Silo 2B	Wyoming	Campbell	Ft. Union Formation
ERP00101	E-173233	Silo 4A	Wyoming	Campbell	Ft. Union Formation
ERP00101	E-173234	Silo 4B	Wyoming	Campbell	Ft. Union Formation
ERP00302	E-207028	106A516	Wyoming	Campbell	Ft. Union Formation
ERP00302	E-207029	106B516	Wyoming	Campbell	Ft. Union Formation
ERP00302	E-207030	106C516	Wyoming	Campbell	Ft. Union Formation
ERP00302	E-207031	106D516	Wyoming	Campbell	Ft. Union Formation
ERP00302	E-207032	102A516	Wyoming	Campbell	Ft. Union Formation
ERP00302	E-207033	102B516	Wyoming	Campbell	Ft. Union Formation
ERP00302	E-207034	102C516	Wyoming	Campbell	Ft. Union Formation
ERP00302	E-207035	102D516	Wyoming	Campbell	Ft. Union Formation
ERP00302	E-207036	107REJECT48516	Wyoming	Converse	Ft. Union Formation
ERP00302	E-207037	107REJECT35516	Wyoming	Converse	Ft. Union Formation
ERP00302	E-207038	107REJECT516	Wyoming	Converse	Ft. Union Formation

Table 3. -- Contents of moisture, ash and major, minor and trace elements (remnant moisture ba
[blank space indicates no data or not analyzed]

Job number	Laboratory number	Field number	State	County	Formation
ERP00302	E-207039	107B516PRB	Wyoming	Converse	Ft. Union Formation
ERP00302	E-207040	ANDERSONA516	Wyoming	Converse	Ft. Union Formation
ERP00302	E-207041	ANDERSONB516	Wyoming	Converse	Ft. Union Formation
ERP00302	E-207042	ANDERSONC516	Wyoming	Converse	Ft. Union Formation
ERP00302	E-207043	ANDERSOND516	Wyoming	Converse	Ft. Union Formation
ERP00302	E-207044	CANYONA516	Wyoming	Converse	Ft. Union Formation
ERP00302	E-207045	CANYONB516	Wyoming	Converse	Ft. Union Formation
ERP00302	E-207046	CANYONC516	Wyoming	Converse	Ft. Union Formation
ERP00302	E-207047	CANYOND516	Wyoming	Converse	Ft. Union Formation
ERP00302	E-207048	C3UA515	Wyoming	Campbell	Ft. Union Formation
ERP00302	E-207049	C3UB515	Wyoming	Campbell	Ft. Union Formation
ERP00302	E-207050	C3UC515	Wyoming	Campbell	Ft. Union Formation
ERP00302	E-207051	C3UD515	Wyoming	Campbell	Ft. Union Formation
ERP00302	E-207052	C1-2MA515	Wyoming	Campbell	Ft. Union Formation
ERP00302	E-207053	C1-2MB515	Wyoming	Campbell	Ft. Union Formation
ERP00302	E-207054	C1-2MC515	Wyoming	Campbell	Ft. Union Formation
ERP00302	E-207055	C1-2MD515	Wyoming	Campbell	Ft. Union Formation
ERP00302	E-207056	107REJECT48516	Wyoming	Converse	Ft. Union Formation
ERP00302	E-207057	ANDERSONC516	Wyoming	Converse	Ft. Union Formation
ERP00357	E-217253	7-11A	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217254	7-11B	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217255	7-12A	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217256	7-12B	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217257	7-12C	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217258	7-13A	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217259	7-13B	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217260	7-13C	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217261	7-14A	Wyoming	Campbell	Ft. Union Formation

Table 3. -- Contents of moisture, ash and major, minor and trace elements (remnant moisture ba
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Job number	Laboratory number	Field number	State	County	Formation
ERP00357	E-217262	7-14B	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217263	7-14C	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217264	7-15A	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217265	7-15B	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217266	7-15C	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217267	7-15D	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217268	7-16B	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217269	7-17A	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217270	7-17B	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217271	7-17C	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217272	605A	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217273	609B	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217274	613B	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217275	614A	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217276	615	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217277	616	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217278	618	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217279	619	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217280	633	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217281	633B	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217282	633C	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217283	7-15C dup	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217284	609B dup	Wyoming	Campbell	Ft. Union Formation
ERP00358	E-217285	634	Wyoming	Campbell	Ft. Union Formation
ERP00358	E-217286	634B	Wyoming	Campbell	Ft. Union Formation
ERP00358	E-217287	634C	Wyoming	Campbell	Ft. Union Formation
ERP00358	E-217288	634D	Wyoming	Campbell	Ft. Union Formation
ERP00358	E-217289	636	Wyoming	Campbell	Ft. Union Formation

Table 3. -- Contents of moisture, ash and major, minor and trace elements (remnant moisture ba
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Job number	Laboratory number	Field number	State	County	Formation
ERP00358	E-217290	637	Wyoming	Campbell	Ft. Union Formation
ERP00358	E-217291	638	Wyoming	Campbell	Ft. Union Formation
ERP00358	E-217292	638B	Wyoming	Campbell	Ft. Union Formation
ERP00358	E-217293	638C	Wyoming	Campbell	Ft. Union Formation
ERP00358	E-217294	545	Wyoming	Campbell	Ft. Union Formation
ERP00358	E-217295	546	Wyoming	Campbell	Ft. Union Formation
ERP00358	E-217296	550	Wyoming	Campbell	Ft. Union Formation
ERP00358	E-217297	551	Wyoming	Campbell	Ft. Union Formation
ERP00358	E-217298	552	Wyoming	Campbell	Ft. Union Formation
ERP00358	E-217299	81402A	Wyoming	Converse	Ft. Union Formation
ERP00358	E-217300	81402B	Wyoming	Converse	Ft. Union Formation
ERP00358	E-217301	81402C	Wyoming	Converse	Ft. Union Formation
ERP00358	E-217302	81402D	Wyoming	Converse	Ft. Union Formation
ERP00358	E-217303	81402E	Wyoming	Converse	Ft. Union Formation
ERP00358	E-217304	81402F	Wyoming	Converse	Ft. Union Formation
ERP00358	E-217305	81402GHC	Wyoming	Converse	Ft. Union Formation
ERP00358	E-217306	81402HHC	Wyoming	Converse	Ft. Union Formation
ERP00358	E-217307	81402IHC	Wyoming	Converse	Ft. Union Formation
ERP00358	E-217308	81402JHC	Wyoming	Converse	Ft. Union Formation
ERP00358	E-217309	81402KHC	Wyoming	Converse	Ft. Union Formation
ERP00358	E-217310	81402LHC	Wyoming	Converse	Ft. Union Formation
ERP00358	E-217311	81402C3UPPER	Wyoming	Campbell	Ft. Union Formation
ERP00358	E-217312	81402UPPER44	Wyoming	Campbell	Ft. Union Formation
ERP00358	E-217313	81402C1-2	Wyoming	Campbell	Ft. Union Formation
ERP00358	E-217314	81402MIDDLE	Wyoming	Campbell	Ft. Union Formation
ERP00358	E-217315	546 dup	Wyoming	Campbell	Ft. Union Formation
ERP00358	E-217316	637 dup	Wyoming	Campbell	Ft. Union Formation

Table 3. -- Contents of moisture, ash and major, minor and trace elements (remnant moisture ba
[blank space indicates no data or not analyzed]

Job number	Laboratory number	Field number	State	County	Formation
Rocky Mountain Province					
ERP00404	E-224222	717JB1	Wyoming	Sweetwater	Ft. Union Formation
ERP00404	E-224223	717JB2	Wyoming	Sweetwater	Ft. Union Formation
ERP00404	E-224224	717JB3	Wyoming	Sweetwater	Ft. Union Formation
ERP00404	E-224225	717JB4	Wyoming	Sweetwater	Ft. Union Formation
ERP00404	E-224226	717JB5	Wyoming	Sweetwater	Ft. Union Formation
ERP00404	E-224227	717155A	Wyoming	Lincoln	Adaville Formation
ERP00404	E-224228	717155B	Wyoming	Lincoln	Adaville Formation
ERP00404	E-224229	717155C	Wyoming	Lincoln	Adaville Formation
ERP00404	E-224230	717155D	Wyoming	Lincoln	Adaville Formation
ERP00404	E-224231	717365A	Wyoming	Lincoln	Adaville Formation
ERP00404	E-224232	717365B	Wyoming	Lincoln	Adaville Formation
ERP00150	E-186364	19117-SF-1	Colorado	Fremont	Vermejo Formation
ERP00150	E-186365	19118-SF-2	Colorado	Fremont	Vermejo Formation
ERP00150	E-186366	19119-SF-3	Colorado	Fremont	Vermejo Formation
ERP00150	E-186367	19120-SF-4	Colorado	Fremont	Vermejo Formation
ERP00150	E-186368	19324-NH-1	Colorado	Montrose	Dakota Sandstone
ERP00150	E-186369	19326-NH-2	Colorado	Montrose	Dakota Sandstone
ERP00150	E-186370	19328-NH-3	Colorado	Montrose	Dakota Sandstone
ERP00150	E-186371	19330-NH-4	Colorado	Montrose	Dakota Sandstone
ERP00150	E-186372	19332-KC-1	Colorado	La Plata	Menefee Formation
ERP00150	E-186373	19334-KC-2	Colorado	La Plata	Menefee Formation
ERP00150	E-186374	19336-KC-3	Colorado	La Plata	Menefee Formation
ERP00150	E-186375	19338-T-1	Colorado	Routt	Williams Fork Formation
ERP00150	E-186376	19340-T-2	Colorado	Routt	Williams Fork Formation
ERP00150	E-186377	19342-W-ROM	Colorado	Routt	Williams Fork Formation
ERP00150	E-186378	19344-S2W-A	Colorado	Routt	Williams Fork Formation

Table 3. -- Contents of moisture, ash and major, minor and trace elements (remnant moisture ba
[blank space indicates no data or not analyzed]

Job number	Laboratory number	Field number	State	County	Formation
ERP00150	E-186379	19347-Y-1	Colorado	Routt	Williams Fork Formation
ERP00150	E-186380	20473-SC-1	Colorado	Delta	Mesaverde Fm., Bowie Shale Mer
ERP00150	E-186381	20474-TREA-H	Colorado	Moffat	Williams Fork Formation
ERP00150	E-186382	20475-TR-H-M	Colorado	Moffat	Williams Fork Formation
ERP00150	E-186383	20476-DS1-RM	Colorado	Rio Blanco	Mesaverde Formation
ERP00150	E-186384	20477-DS-1-S	Colorado	Rio Blanco	Mesaverde Formation
ERP00150	E-186385	20478-MC1-RM	Colorado	Garfield	Mesaverde Formation
ERP00150	E-186386	20479-BW1-CH	Colorado	Delta	Mesaverde Fm., Bowie Shale Mer
ERP00150	E-186387	20480-BW1-S	Colorado	Delta	Mesaverde Fm., Bowie Shale Mer
ERP00188	E-190603	TR-DR1-QU	Colorado	Moffat	Williams Fork Formation
ERP00188	E-190604	TR-DR2-QM	Colorado	Moffat	Williams Fork Formation
ERP00188	E-190605	Trapper-ROM	Colorado	Moffat	Williams Fork Formation
ERP00188	E-190606	CWO-W-CH	Colorado	Moffat	Williams Fork Formation
ERP00188	E-190607	CWO-ROM	Colorado	Moffat	Williams Fork Formation
ERP00188	E-190608	1-WE-Sales	Colorado	Gunnison	Mesaverde Formation
ERP00188	E-190609	San1-KC	Colorado	La Plata	Menefee Formation
ERP00188	E-190610	San2-NH	Colorado	Montrose	Dakota Sandstone
ERP00188	E-190611	San3-BW2	Colorado	Delta	Mesaverde Fm., Bowie Shale Mer
ERP00188	E-190612	San4-WE	Colorado	Gunnison	Mesaverde Formation
ERP00188	E-190613	San5-SB	Colorado	Delta	Mesaverde Fm., Bowie Shale Mer
ERP00188	E-190614	San6-MC	Colorado	Garfield	Mesaverde Formation
ERP00188	E-190615	Sen2W-01-ROM	Colorado	Routt	Williams Fork Formation
ERP00188	E-190616	Y-01-ROM	Colorado	Routt	Williams Fork Formation
ERP00188	E-190617	FC-01-ROM	Colorado	Routt	Williams Fork Formation
ERP00276	E-203760	20451	Colorado	Gunnison	Mesaverde Formation
ERP00276	E-203761	WEM MCC	Colorado	Gunnison	Mesaverde Formation
ERP00276	E-203762	DES-01-01	Colorado	Rio Blanco	Mesaverde Formation
ERP00276	E-203763	DES-02-01	Colorado	Rio Blanco	Mesaverde Formation

Table 3. -- Contents of moisture, ash and major, minor and trace elements (remnant moisture ba
[blank space indicates no data or not analyzed]

Job number	Laboratory number	Field number	State	County	Formation
ERP00276	E-203764	DES-03-01	Colorado	Rio Blanco	Mesaverde Formation
ERP00276	E-203765	CWO-01-01	Colorado	Moffat	Williams Fork Formation, C seam
ERP00276	E-203766	CWO-02-01	Colorado	Moffat	Williams Fork Formation, D seam
ERP00276	E-203767	CWO-03-01	Colorado	Moffat	Williams Fork Formation, F seam
ERP00276	E-203768	CWO-04-01	Colorado	Moffat	Williams Fork Formation, X seam
ERP00276	E-203769	CWO-05-01	Colorado	Moffat	Williams Fork Formation, B seam
ERP00276	E-203770	CWO-06-01	Colorado	Moffat	Williams Fork Formation, X bed
ERP00276	E-203771	CWO-07-01	Colorado	Moffat	Williams Fork Formation, F bed
ERP00276	E-203772	TRDR-RCHAN	Colorado	Moffat	Williams Fork Formation
ERP00276	E-203773	TRDR-QROM	Colorado	Moffat	Williams Fork Formation
ERP00276	E-203774	LOR-M-01-02	Colorado	Las Animas	Raton Formation
ERP00276	E-203775	LOR-NA-01-02	Colorado	Las Animas	Raton Formation
ERP00276	E-203776	WEM MCC2	Colorado	Gunnison	Mesaverde Formation
Interior Province					
EA52	E-000990	96-C-1H	Oklahoma	Rogers	Senora Formation
EA52	E-000991	96-C-3H	Oklahoma	Nowata	Senora Formation
EA52	E-000992	96-C-4H	Oklahoma	Craig	Senora Formation
ERP00113	E-177446	OKLA-1	Oklahoma	Okmulgee	Senora Formation
ERP00141	E-186010	OPL1143	Oklahoma	Haskell	McAlester Formation
ERP00141	E-186011	OPL1144	Oklahoma	LeFlore	Hartshorne Sandstone
ERP00449	E-242780	OPL-1183	Oklahoma	Nowata	Senora Formation
ERP00449	E-242781	OPL-1184	Oklahoma	Craig	Senora Formation
EA05	E-000037	C34943	Illinois	Vermilion	Carbondale Formation
EB71	E-003207	C33863	Illinois	Douglas	Carbondale Formation
EB71	E-003208	C33864	Illinois	Douglas	Carbondale Formation

Table 3. -- Contents of moisture, ash and major, minor and trace elements (remnant moisture ba
[blank space indicates no data or not analyzed]

Job number	Laboratory number	Field number	State	County	Formation
EB71	E-003209	C33865	Illinois	Douglas	Carbondale Formation
ERP00048	E-138332	C36488	Illinois	Jackson	Tradewater Formation
ERP00048	E-138333	C36489	Illinois	Jackson	Tradewater Formation
ERP00048	E-138334	C36490	Illinois	Jackson	Tradewater Formation
ERP00048	E-138335	C36491	Illinois	Gallatin	Carbondale Formation
ERP00048	E-138336	C36492	Illinois	Gallatin	Carbondale Formation
ERP00048	E-138337	C36493	Illinois	Gallatin	Carbondale Formation
ERP00048	E-138338	C36494	Illinois	Jackson	Carbondale Formation
EB71	E-003186	98126-1	Indiana	Posey	Dugger Formation
EB71	E-003187	98126-2	Indiana	Posey	Dugger Formation
EB71	E-003188	98126-3	Indiana	Posey	Dugger Formation
EB71	E-003189	98126-4	Indiana	Posey	Petersburg Formation
EB71	E-003190	98126-5	Indiana	Posey	Petersburg Formation
EB71	E-003191	98126-6	Indiana	Posey	Petersburg Formation
EB71	E-003192	98126-7	Indiana	Posey	Petersburg Formation
EB71	E-003193	98126-8	Indiana	Posey	Staunton Formation
EB71	E-003194	98126-9	Indiana	Posey	Staunton Formation
EB71	E-003195	98126-10	Indiana	Posey	Staunton Formation
EB71	E-003196	98126-11	Indiana	Posey	Staunton Formation
EB71	E-003197	98126-12	Indiana	Posey	Brazil Formation
EB71	E-003198	98126-13	Indiana	Posey	uncorrelated
EB71	E-003199	98126-14	Indiana	Posey	uncorrelated
EB71	E-003200	98126-15	Indiana	Posey	uncorrelated
EB71	E-003201	98126-16	Indiana	Posey	uncorrelated
EB71	E-003202	98126-17	Indiana	Posey	uncorrelated
EB71	E-003203	98126-18	Indiana	Posey	uncorrelated
EB71	E-003204	98126-19	Indiana	Posey	uncorrelated
EB71	E-003205	98126-20	Indiana	Posey	uncorrelated

Table 3. -- Contents of moisture, ash and major, minor and trace elements (remnant moisture ba
[blank space indicates no data or not analyzed]

Job number	Laboratory number	Field number	State	County	Formation
EB71	E-003206	98126-21	Indiana	Posey	uncorrelated
ERP00238	E-200392	980813B1	Indiana	Clay	Brazil Formation
ERP00238	E-200393	980813B2	Indiana	Clay	Brazil Formation
ERP00238	E-200394	980813B3	Indiana	Clay	Brazil Formation
ERP00238	E-200395	981130A1	Indiana	Greene	Brazil Formation
ERP00238	E-200396	981130A2	Indiana	Greene	Brazil Formation
ERP00238	E-200397	981130A3	Indiana	Greene	Brazil Formation
ERP00238	E-200398	981130A4	Indiana	Greene	Brazil Formation
ERP00238	E-200399	981207A1	Indiana	Greene	Brazil Formation
ERP00238	E-200400	981207A2	Indiana	Greene	Brazil Formation
ERP00238	E-200401	981207A3	Indiana	Greene	Brazil Formation
ERP00238	E-200402	981207A4	Indiana	Greene	Brazil Formation
ERP00238	E-200403	981207B1	Indiana	Greene	Brazil Formation
ERP00238	E-200404	981207B2	Indiana	Greene	Brazil Formation
ERP00238	E-200405	981207B4	Indiana	Greene	Brazil Formation
ERP00238	E-200406	10803A1,0-63	Indiana	Parke	Brazil Formation
ERP00238	E-200407	10803A1,1.6	Indiana	Parke	Brazil Formation
ERP00238	E-200408	10803A2,63-94	Indiana	Parke	Brazil Formation
ERP00238	E-200409	10803A2,1.6	Indiana	Parke	Brazil Formation
ERP00238	E-200410	10803A3,94-131	Indiana	Parke	Brazil Formation
ERP00238	E-200411	10803A3,1.6	Indiana	Parke	Brazil Formation
ERP00238	E-200412	10803B1,0-28	Indiana	Parke	Brazil Formation
ERP00238	E-200413	10803B1,1.6	Indiana	Parke	Brazil Formation
ERP00238	E-200414	10803B2,28-53	Indiana	Parke	Brazil Formation
ERP00238	E-200415	10803B2,1.6	Indiana	Parke	Brazil Formation
ERP00238	E-200416	10803B3,53-73	Indiana	Parke	Brazil Formation
ERP00238	E-200417	10803B3,1.6	Indiana	Parke	Brazil Formation
ERP00238	E-200418	10724C1,0-33	Indiana	Sullivan	Dugger Formation

Table 3. -- Contents of moisture, ash and major, minor and trace elements (remnant moisture ba
[blank space indicates no data or not analyzed]

Job number	Laboratory number	Field number	State	County	Formation
ERP00238	E-200419	10724C1,1.5	Indiana	Sullivan	Dugger Formation
ERP00238	E-200420	10724C2,33-69	Indiana	Sullivan	Dugger Formation
ERP00238	E-200421	10724C2,1.5	Indiana	Sullivan	Dugger Formation
ERP00238	E-200422	10724C3,69-96	Indiana	Sullivan	Dugger Formation
ERP00238	E-200423	10724C3,1.5	Indiana	Sullivan	Dugger Formation
ERP00238	E-200424	10724C4,96-117	Indiana	Sullivan	Dugger Formation
ERP00238	E-200425	10724C4,1.5	Indiana	Sullivan	Dugger Formation
ERP00238	E-200426	981130A3D	Indiana	Greene	Brazil Formation
ERP00238	E-200427	10803A1,1.6D	Indiana	Parke	Brazil Formation
ERP00238	E-200428	10803B3,1.6D	Indiana	Parke	Brazil Formation
ERP00239	E-200429	10724B1,0-34	Indiana	Sullivan	Dugger Formation
ERP00239	E-200430	10724B1,1.5	Indiana	Sullivan	Dugger Formation
ERP00239	E-200431	10724B2,34-70	Indiana	Sullivan	Dugger Formation
ERP00239	E-200432	10724B2,1.5	Indiana	Sullivan	Dugger Formation
ERP00239	E-200433	10724B3,70-93	Indiana	Sullivan	Dugger Formation
ERP00239	E-200434	10724B3,1.5	Indiana	Sullivan	Dugger Formation
ERP00239	E-200435	107241,0-34	Indiana	Sullivan	Dugger Formation
ERP00239	E-200436	107241,1.5	Indiana	Sullivan	Dugger Formation
ERP00239	E-200437	107242,34-63	Indiana	Sullivan	Dugger Formation
ERP00239	E-200438	107242,1.5	Indiana	Sullivan	Dugger Formation
ERP00239	E-200439	107243,65-97	Indiana	Sullivan	Dugger Formation
ERP00239	E-200440	107243,1.5	Indiana	Sullivan	Dugger Formation
ERP00239	E-200441	11006A1,0-15	Indiana	Knox	Dugger Formation
ERP00239	E-200442	11006A1,1.6	Indiana	Knox	Dugger Formation
ERP00239	E-200443	11006A2,15-43	Indiana	Knox	Dugger Formation
ERP00239	E-200444	11006A2,1.6	Indiana	Knox	Dugger Formation
ERP00239	E-200445	11006A3,43-103	Indiana	Knox	Dugger Formation
ERP00239	E-200446	11006A3,1.6	Indiana	Knox	Dugger Formation

Table 3. -- Contents of moisture, ash and major, minor and trace elements (remnant moisture ba
[blank space indicates no data or not analyzed]

Job number	Laboratory number	Field number	State	County	Formation
ERP00239	E-200447	11006A4,103-148	Indiana	Knox	Dugger Formation
ERP00239	E-200448	11006A4, 1.6	Indiana	Knox	Dugger Formation
ERP00239	E-200449	11006AQ, MTRaw	Indiana	Knox	Dugger Formation
ERP00239	E-200450	11006AQ, MT1.6	Indiana	Knox	Dugger Formation
ERP00239	E-200451	11027A1,0-22	Indiana	Spencer	Mansfield Formation
ERP00239	E-200452	11027A1,1.6	Indiana	Spencer	Mansfield Formation
ERP00239	E-200453	11027A2,22-42	Indiana	Spencer	Mansfield Formation
ERP00239	E-200454	11027A2,1.6	Indiana	Spencer	Mansfield Formation
ERP00239	E-200455	11027A3,44-68	Indiana	Spencer	Mansfield Formation
ERP00239	E-200456	11027A3,1.6	Indiana	Spencer	Mansfield Formation
ERP00239	E-200457	11106A1,0-24	Indiana	Spencer	Brazil Formation
ERP00239	E-200458	11106A1,1.6	Indiana	Spencer	Brazil Formation
ERP00239	E-200459	11106A2,24-47	Indiana	Spencer	Brazil Formation
ERP00239	E-200460	11106A2,1.6	Indiana	Spencer	Brazil Formation
ERP00239	E-200461	11106A3,47-57	Indiana	Spencer	Brazil Formation
ERP00239	E-200462	11106A3,1.6	Indiana	Spencer	Brazil Formation
ERP00239	E-200463	11106A4,57-77	Indiana	Spencer	Brazil Formation
ERP00239	E-200464	11106A4,1.6	Indiana	Spencer	Brazil Formation
ERP00239	E-200465	11106A1,1.6D	Indiana	Spencer	Brazil Formation
ERP00239	E-200466	10724B2,34-70D	Indiana	Sullivan	Dugger Formation
ERP00239	E-200467	107242,1.5D	Indiana	Sullivan	Dugger Formation
ERP00255	E-201895	10807A1	Indiana	Greene	Brazil Formation
ERP00255	E-201896	10807A1,1.6	Indiana	Greene	Brazil Formation
ERP00255	E-201897	10807A2	Indiana	Greene	Brazil Formation
ERP00255	E-201898	10807A2,1.6	Indiana	Greene	Brazil Formation
ERP00255	E-201899	10807A3	Indiana	Greene	Brazil Formation
ERP00255	E-201900	10807A3,1.6	Indiana	Greene	Brazil Formation
ERP00255	E-201901	10807B1	Indiana	Greene	Mansfield Formation

Table 3. -- Contents of moisture, ash and major, minor and trace elements (remnant moisture ba
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Job number	Laboratory number	Field number	State	County	Formation
ERP00255	E-201902	10807B1,1.6	Indiana	Greene	Mansfield Formation
ERP00255	E-201903	10807B2	Indiana	Greene	Mansfield Formation
ERP00255	E-201904	10807B2,1.6	Indiana	Greene	Mansfield Formation
ERP00255	E-201905	10807B3	Indiana	Greene	Mansfield Formation
ERP00255	E-201906	10807B3,1.6	Indiana	Greene	Mansfield Formation
ERP00255	E-201907	10807B4	Indiana	Greene	Mansfield Formation
ERP00255	E-201908	10807B4,1.6	Indiana	Greene	Mansfield Formation
ERP00255	E-201909	CulleyMillB3	Indiana	Spencer	
ERP00255	E-201910	CulleyMillC3	Indiana	Spencer	
ERP00255	E-201911	CulleyMillE3	Indiana	Spencer	
ERP00255	E-201912	CulleyMillB2	Indiana	Spencer	
ERP00255	E-201913	CulleyMillA2	Indiana	Spencer	
ERP00255	E-201914	GEboiler1	Indiana	Knox	
ERP00255	E-201915	GEboiler2	Indiana	Knox	
ERP00255	E-201916	AQProduct	Indiana	Knox	
ERP00255	E-201917	11113A1	Indiana	Warrick	Petersburg Formation
ERP00255	E-201918	11113A1,1.5	Indiana	Warrick	Petersburg Formation
ERP00255	E-201919	11113A2	Indiana	Warrick	Petersburg Formation
ERP00255	E-201920	11113A2,1.5	Indiana	Warrick	Petersburg Formation
ERP00255	E-201921	11113A4	Indiana	Warrick	Petersburg Formation
ERP00255	E-201922	11113A4,1.5	Indiana	Warrick	Petersburg Formation
ERP00255	E-201923	11113A5	Indiana	Warrick	Petersburg Formation
ERP00255	E-201924	11113A5,1.5	Indiana	Warrick	Petersburg Formation
ERP00255	E-201925	11113A6	Indiana	Warrick	Petersburg Formation
ERP00255	E-201926	11113A6,1.5	Indiana	Warrick	Petersburg Formation
ERP00255	E-201927	10807A2D	Indiana	Greene	Brazil Formation
ERP00255	E-201928	11113A4D	Indiana	Warrick	Petersburg Formation
ERP00256	E-201929	GEboiler2-2	Indiana	Knox	N

Table 3. -- Contents of moisture, ash and major, minor and trace elements (remnant moisture ba
[blank space indicates no data or not analyzed]

Job number	Laboratory number	Field number	State	County	Formation
ERP00256	E-201930	GEboiler2-4	Indiana	Knox	N
ERP00256	E-201931	GEboiler2-6	Indiana	Knox	N
ERP00256	E-201932	GEboiler2-8	Indiana	Knox	N
ERP00256	E-201933	GEboiler1-1	Indiana	Knox	N
ERP00256	E-201934	GEboiler1-3	Indiana	Knox	N
ERP00256	E-201935	GEboiler1-5	Indiana	Knox	N
ERP00256	E-201936	GEboiler1-7	Indiana	Knox	N
ERP00256	E-201937	Geunit1-rph	Indiana	Knox	N
ERP00256	E-201938	CulleyUnit3E	Indiana	Spencer	N
ERP00256	E-201939	CulleyUnit3W	Indiana	Spencer	N
ERP00256	E-201940	CulleyUnit2E	Indiana	Spencer	N
ERP00256	E-201941	Culley2+3FGD	Indiana	Spencer	N
ERP00256	E-201942	GEboiler2-4D	Indiana	Knox	N
ERP00277	E-203777	10803C1,0-30	Indiana	Clay	Brazil Formation
ERP00277	E-203778	10803C1,1.6	Indiana	Clay	Brazil Formation
ERP00277	E-203779	10803C2,30-52	Indiana	Clay	Brazil Formation
ERP00277	E-203780	10803C2,1.6	Indiana	Clay	Brazil Formation
ERP00277	E-203781	10803C3,52-86	Indiana	Clay	Brazil Formation
ERP00277	E-203782	10803C3,1.6	Indiana	Clay	Brazil Formation
ERP00277	E-203783	10803C4,86-110	Indiana	Clay	Brazil Formation
ERP00277	E-203784	10803C4,1.6	Indiana	Clay	Brazil Formation
ERP00277	E-203785	10724D1,0-26	Indiana	Clay	Mansfield Formation
ERP00277	E-203786	10724D1,1.5	Indiana	Clay	Mansfield Formation
ERP00277	E-203787	10724D2,26-48	Indiana	Clay	Mansfield Formation
ERP00277	E-203788	10724D2,1.5	Indiana	Clay	Mansfield Formation
ERP00277	E-203789	10724D3,50-62	Indiana	Clay	Mansfield Formation
ERP00277	E-203790	10724D3,1.5	Indiana	Clay	Mansfield Formation
ERP00277	E-203791	10803C1,0-30D	Indiana	Clay	Brazil Formation

Table 3. -- Contents of moisture, ash and major, minor and trace elements (remnant moisture ba
[blank space indicates no data or not analyzed]

Job number	Laboratory number	Field number	State	County	Formation
ERP00313	E-209604	205241 0-27	Indiana	Gibson	Dugger Formation
ERP00313	E-209605	205241 Float	Indiana	Gibson	Dugger Formation
ERP00313	E-209606	205242 27-61	Indiana	Gibson	Dugger Formation
ERP00313	E-209607	205242 Float	Indiana	Gibson	Dugger Formation
ERP00313	E-209608	205243 61-89	Indiana	Gibson	Dugger Formation
ERP00313	E-209609	205243 Float	Indiana	Gibson	Dugger Formation
ERP00313	E-209610	20524FC 0-89	Indiana	Gibson	Dugger Formation
ERP00313	E-209611	20524FC Float	Indiana	Gibson	Dugger Formation
ERP00313	E-209612	205291 0-33	Indiana	Gibson	Petersburg Formation
ERP00313	E-209613	205291 Float	Indiana	Gibson	Petersburg Formation
ERP00313	E-209614	205292 33-74	Indiana	Gibson	Petersburg Formation
ERP00313	E-209615	205292 Float	Indiana	Gibson	Petersburg Formation
ERP00313	E-209616	205293 74-103	Indiana	Gibson	Petersburg Formation
ERP00313	E-209617	205293 Float	Indiana	Gibson	Petersburg Formation
ERP00313	E-209618	205294 103-143	Indiana	Gibson	Petersburg Formation
ERP00313	E-209619	205294 Float	Indiana	Gibson	Petersburg Formation
ERP00313	E-209620	20524FC FloatD	Indiana	Gibson	Dugger Formation
ERP00313	E-209621	205294 103-143D	Indiana	Gibson	Petersburg Formation
ERP00426	E-229090	20031009-1R	Indiana	Gibson	Petersburg Formation
ERP00426	E-229091	20031009-1F	Indiana	Gibson	Petersburg Formation
ERP00426	E-229092	20031009-2R	Indiana	Gibson	Petersburg Formation
ERP00426	E-229093	20031009-2F	Indiana	Gibson	Petersburg Formation
ERP00426	E-229094	20031009-3R	Indiana	Gibson	Petersburg Formation
ERP00426	E-229095	20031009-3F	Indiana	Gibson	Petersburg Formation
ERP00426	E-229096	20031009-4R	Indiana	Gibson	Petersburg Formation
ERP00426	E-229097	20031009-4F	Indiana	Gibson	Petersburg Formation
ERP00426	E-229098	20030214-1	Indiana	Knox	Dugger Formation
ERP00426	E-229099	20030214-2	Indiana	Knox	Dugger Formation

Table 3. -- Contents of moisture, ash and major, minor and trace elements (remnant moisture ba
[blank space indicates no data or not analyzed]

Job number	Laboratory number	Field number	State	County	Formation
ERP00426	E-229100	20030214-3	Indiana	Knox	Dugger Formation
ERP00426	E-229101	20030214-4	Indiana	Knox	Dugger Formation
ERP00426	E-229102	20030321-A1	Indiana	Daviess	Brazil Formation
ERP00426	E-229103	20030321-A2	Indiana	Daviess	Brazil Formation
ERP00426	E-229104	20030321-A3	Indiana	Daviess	Brazil Formation
ERP00426	E-229105	20030321-A4	Indiana	Daviess	Brazil Formation
ERP00426	E-229106	20030321-B1	Indiana	Daviess	Brazil Formation
ERP00426	E-229107	20030321-B2	Indiana	Daviess	Brazil Formation
ERP00426	E-229108	20030321-B3	Indiana	Daviess	Brazil Formation
ERP00426	E-229109	20030321-B4	Indiana	Daviess	Brazil Formation
ERP00426	E-229110	20030321-C1	Indiana	Daviess	Brazil Formation
ERP00426	E-229111	20030321-C2	Indiana	Daviess	Brazil Formation
ERP00426	E-229113	20030321-C4	Indiana	Daviess	Brazil Formation
ERP00426	E-229114	20030321-C5	Indiana	Daviess	Brazil Formation
ERP00434	E-230453	20031028D-1R	Indiana	Gibson	Petersburg Formation
ERP00434	E-230454	20031028D-1F	Indiana	Gibson	Petersburg Formation
ERP00434	E-230455	20031028D-2R	Indiana	Gibson	Petersburg Formation
ERP00434	E-230456	20031028D-2F	Indiana	Gibson	Petersburg Formation
ERP00434	E-230457	20031028D-3R	Indiana	Gibson	Petersburg Formation
ERP00434	E-230458	20031028D-3F	Indiana	Gibson	Petersburg Formation
ERP00434	E-230459	20031028D-4R	Indiana	Gibson	Petersburg Formation
ERP00434	E-230460	20031028D-4F	Indiana	Gibson	Petersburg Formation
ERP00434	E-230461	2698001-R	Indiana	Gibson	Staunton Formation
ERP00434	E-230462	2698002-F	Indiana	Gibson	Staunton Formation
ERP00434	E-230463	2698004-R	Indiana	Gibson	Staunton Formation
ERP00434	E-230464	2698005-F	Indiana	Gibson	Staunton Formation
ERP00434	E-230465	2698007-R	Indiana	Gibson	Staunton Formation
ERP00434	E-230466	2698008-F	Indiana	Gibson	Staunton Formation

Table 3. -- Contents of moisture, ash and major, minor and trace elements (remnant moisture ba
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Job number	Laboratory number	Field number	State	County	Formation
ERP00434	E-230467	2698010-R	Indiana	Gibson	Staunton Formation
ERP00434	E-230468	2698011-F	Indiana	Gibson	Staunton Formation
ERP00434	E-230469	2698013-R	Indiana	Gibson	Staunton Formation
ERP00434	E-230470	2698014-F	Indiana	Gibson	Staunton Formation
ERP00434	E-230471	2698016-R	Indiana	Gibson	Staunton Formation
ERP00434	E-230472	2698017-F	Indiana	Gibson	Staunton Formation
ERP00434	E-230473	2698019-R	Indiana	Gibson	Staunton Formation
ERP00434	E-230474	2698020-F	Indiana	Gibson	Staunton Formation
ERP00434	E-230475	2698022-R	Indiana	Gibson	Staunton Formation
ERP00434	E-230476	2698023-F	Indiana	Gibson	Staunton Formation
ERP00434	E-230477	20031028A-1R	Indiana	Gibson	Dugger Formation
ERP00434	E-230478	20031028A-1F	Indiana	Gibson	Dugger Formation
ERP00434	E-230479	20031028A-2R	Indiana	Gibson	Dugger Formation
ERP00434	E-230480	20031028A-2F	Indiana	Gibson	Dugger Formation
ERP00434	E-230481	20031028A-3R	Indiana	Gibson	Dugger Formation
ERP00434	E-230482	20031028A-3F	Indiana	Gibson	Dugger Formation
ERP00434	E-230483	20031028B-1R	Indiana	Gibson	Dugger Formation
ERP00434	E-230484	20031028B-1F	Indiana	Gibson	Dugger Formation
ERP00434	E-230485	20031028B-2R	Indiana	Gibson	Dugger Formation
ERP00434	E-230486	20031028B-2F	Indiana	Gibson	Dugger Formation
ERP00434	E-230487	20031028B-3R	Indiana	Gibson	Dugger Formation
ERP00434	E-230488	20031028B-3F	Indiana	Gibson	Dugger Formation
ERP00434	E-230489	20031028B-4R	Indiana	Gibson	Dugger Formation
ERP00434	E-230490	20031028B-4F	Indiana	Gibson	Dugger Formation
ERP00434	E-230491	20031028C	Indiana	Gibson	Unknown
ERP00434	E-230492	20031028C	Indiana	Gibson	Unknown
ERP00650	06500001	BigRun1	Kentucky	Ohio	Unknown
ERP00650	06500002	DC0410WKY10	Kentucky	Webster	Carbondale Formation

Table 3. -- Contents of moisture, ash and major, minor and trace elements (remnant moisture ba
[blank space indicates no data or not analyzed]

Job number	Laboratory number	Field number	State	County	Formation
ERP00650	06500003	DC0410WKY13Ba	Kentucky	Webster	Shelburn Formation
ERP00650	06500004	DC0410WKY9A	Kentucky	Webster	Carbondale Formation
ERP00650	06500005	DC0410WKY9B	Kentucky	Webster	Carbondale Formation
ERP00650	06500006	DC0410WKY9C	Kentucky	Webster	Carbondale Formation
ERP00650	06500007	DC0410WKY9RR	Kentucky	Webster	Carbondale Formation
ERP00650	06500008	DC049WKY10	Kentucky	Webster	Carbondale Formation
ERP00650	06500009	DC049WKY13A	Kentucky	Webster	Shelburn Formation
ERP00650	06500010	DC049WKY13B	Kentucky	Webster	Shelburn Formation
ERP00650	06500011	DC049WKY13C	Kentucky	Webster	Shelburn Formation
ERP00650	06500012	DC049WKY9A	Kentucky	Webster	Carbondale Formation
ERP00650	06500013	DC049WKY9B	Kentucky	Webster	Carbondale Formation
ERP00650	06500014	DC049WKY9C	Kentucky	Webster	Carbondale Formation
ERP00650	06500015	DC049WKY9RR	Kentucky	Webster	Carbondale Formation
ERP00650	06500016	P42WKY6Davis	Kentucky	Hopkins	Carbondale Formation
ERP00650	06500017	P42WKY6DavisRF	Kentucky	Hopkins	Carbondale Formation
ERP00650	06500018	P42WKY8B1	Kentucky	Hopkins	Carbondale Formation
ERP00650	06500019	P42WKY8B2	Kentucky	Hopkins	Carbondale Formation
ERP00650	06500020	P42WKY9A	Kentucky	Hopkins	Carbondale Formation
ERP00650	06500021	P42WKY9B	Kentucky	Hopkins	Carbondale Formation
ERP00650	06500022	P42WKY9C	Kentucky	Hopkins	Carbondale Formation
ERP00650	06500023	P42WKY9RR	Kentucky	Hopkins	Carbondale Formation
ERP00650	06500024	P42WKYColch	Kentucky	Hopkins	Carbondale Formation
ERP00650	06500025	P42WKYColchRR	Kentucky	Hopkins	Carbondale Formation
ERP00650	06500026	P42WKY11A	Kentucky	Hopkins	Shelburn Formation
ERP00650	06500027	P42WKY11B	Kentucky	Hopkins	Shelburn Formation
ERP00650	06500028	P42WKY11C	Kentucky	Hopkins	Shelburn Formation
ERP00650	06500029	P42WKY11D	Kentucky	Hopkins	Shelburn Formation

Table 3. -- Contents of moisture, ash and major, minor and trace elements (remnant moisture ba
[blank space indicates no data or not analyzed]

Job number	Laboratory number	Field number	State	County	Formation
Eastern Province					
ERP00249	E-201622	92789C	Kentucky	Pulaski	
ERP00249	E-201623	92790C	Kentucky	Pulaski	
ERP00249	E-201624	92807C	Kentucky	Pulaski	
ERP00249	E-201625	92808C	Kentucky	Pulaski	
ERP00249	E-201626	92809C	Kentucky	Pulaski	
ERP00249	E-201627	92810C	Kentucky	Pulaski	
ERP00249	E-201628	92811C	Kentucky	Pulaski	
ERP00249	E-201629	92812C	Kentucky	Pulaski	
ERP00249	E-201630	5498C	Kentucky	Knox	Breathitt Formation
ERP00249	E-201631	5499C	Kentucky	Knox	Breathitt Formation
ERP00249	E-201632	5500C	Kentucky	Knox	Breathitt Formation
ERP00249	E-201633	5501C	Kentucky	Knox	Breathitt Formation
ERP00249	E-201634	5502C	Kentucky	Knox	Breathitt Formation
ERP00249	E-201635	5503C	Kentucky	Knox	Breathitt Formation
ERP00249	E-201636	5504C	Kentucky	Knox	Breathitt Formation
ERP00249	E-201637	92790D	Kentucky	Pulaski	
ERP00249	E-201638	5498D	Kentucky	Knox	Breathitt Formation
ERP00250	E-201639	92791A	Kentucky	Pulaski	
ERP00250	E-201640	92792A	Kentucky	Pulaski	
ERP00250	E-201641	92793A	Kentucky	Pulaski	
ERP00250	E-201642	92794A	Kentucky	Pulaski	
ERP00250	E-201643	92795A	Kentucky	Pulaski	
ERP00250	E-201644	92796A	Kentucky	Pulaski	
ERP00250	E-201645	92797A	Kentucky	Pulaski	
ERP00250	E-201646	92798A	Kentucky	Pulaski	

Table 3. -- Contents of moisture, ash and major, minor and trace elements (remnant moisture ba
[blank space indicates no data or not analyzed]

Job number	Laboratory number	Field number	State	County	Formation
ERP00250	E-201647	92799A	Kentucky	Pulaski	
ERP00250	E-201648	92800A	Kentucky	Pulaski	
ERP00250	E-201649	92801A	Kentucky	Pulaski	
ERP00250	E-201650	92802A	Kentucky	Pulaski	
ERP00250	E-201651	92803A	Kentucky	Pulaski	
ERP00250	E-201652	92804A	Kentucky	Pulaski	
ERP00250	E-201653	92805A	Kentucky	Pulaski	
ERP00250	E-201654	92806A	Kentucky	Pulaski	
ERP00250	E-201655	92794D	Kentucky	Pulaski	
ERP00250	E-201656	92802D	Kentucky	Pulaski	
ERP00423	E-227705	PAS 1321-1	Pennsylvania	Elk	Allegheny Formation
ERP00423	E-227706	PAS 1321-2	Pennsylvania	Elk	Allegheny Formation
ERP00423	E-227707	PAS 1322	Pennsylvania	Elk	Allegheny Formation
ERP00423	E-227708	PAS 1400	Pennsylvania	Somerset	Allegheny Formation
ERP00423	E-227709	PAS 1401	Pennsylvania	Somerset	Allegheny Formation
ERP00423	E-227710	PAS 1402	Pennsylvania	Somerset	Allegheny Formation
ERP00423	E-227711	PAS 1403	Pennsylvania	Somerset	Allegheny Formation
ERP00423	E-227712	PAS 1404	Pennsylvania	Somerset	Allegheny Formation
ERP00423	E-227713	PAS 1405	Pennsylvania	Somerset	Monongahela Group
ERP00423	E-227714	PAS 1406	Pennsylvania	Somerset	Monongahela Group
ERP00423	E-227715	PAS 1407	Pennsylvania	Somerset	Allegheny Formation
ERP00423	E-227716	PAS 1408	Pennsylvania	Somerset	Allegheny Formation
ERP00423	E-227717	PAS 1409	Pennsylvania	Somerset	Monongahela Group
ERP00423	E-227718	PAS 1410	Pennsylvania	Somerset	Monongahela Group
ERP00423	E-227719	PAS 1411	Pennsylvania	Somerset	Allegheny Formation
ERP00423	E-227720	PAS 1412	Pennsylvania	Somerset	Allegheny Formation
ERP00423	E-227721	PAS 1413	Pennsylvania	Somerset	Allegheny Formation
ERP00423	E-227722	PAS 1414	Pennsylvania	Somerset	Allegheny Formation

Table 3. -- Contents of moisture, ash and major, minor and trace elements (remnant moisture ba
[blank space indicates no data or not analyzed]

Job number	Laboratory number	Field number	State	County	Formation
ERP00423	E-227723	PAS 1415	Pennsylvania	Somerset	Allegheny Formation
ERP00423	E-227724	PAS 1416	Pennsylvania	Somerset	Allegheny Formation
ERP00423	E-227725	PAS 1417	Pennsylvania	Somerset	Monongahela Group
ERP00423	E-227726	PAS 1418	Pennsylvania	Somerset	Monongahela Group
ERP00423	E-227727	PAS 1419	Pennsylvania	Somerset	Allegheny Formation
ERP00427	E-229115	PAS 1420	Pennsylvania	Elk	Allegheny Formation
ERP00427	E-229116	PAS 1421	Pennsylvania	Elk	Allegheny Formation
ERP00427	E-229117	PAS 1422	Pennsylvania	Elk	Allegheny Formation
ERP00427	E-229118	PAS 1423	Pennsylvania	Elk	Allegheny Formation
ERP00427	E-229119	PAS 1424	Pennsylvania	Elk	Allegheny Formation
ERP00427	E-229120	PAS 1425	Pennsylvania	Washington	Monongahela Group
ERP00427	E-229121	PAS 1426	Pennsylvania	Washington	Monongahela Group
ERP00427	E-229122	PAS 1427	Pennsylvania	Washington	Monongahela Group
ERP00427	E-229123	PAS 1428	Pennsylvania	Washington	Monongahela Group
ERP00427	E-229124	PAS 1429	Pennsylvania	Washington	Monongahela Group
ERP00424	E-227728	DUN-413	Tennessee	Anderson	Breathitt Formation
ERP00424	E-227729	EAG-68	Tennessee	Claiborne	Breathitt Formation
ERP00424	E-227730	NEM-2041	Tennessee	Fentress	Lee Formation
ERP00424	E-227731	PEW-2438	Tennessee	Scott	Breathitt Formation
ERP00424	E-227732	RICH-51	Tennessee	Cumberland	Lee Formation
ERP00424	E-227733	CAR-0315	Tennessee	Morgan	Lee Formation
ERP00424	E-227734	WAL-2182	Tennessee	Scott	Breathitt Formation
ERP00424	E-227735	STR-1389	Tennessee	Claiborne	Breathitt Formation
ERP00424	E-227736	EAG-96S TOP	Tennessee	Claiborne	Breathitt Formation
ERP00424	E-227737	EAG-96S BTM	Tennessee	Claiborne	Breathitt Formation
ERP00063	E-141556	WVGS#18883	West Virginia	Marion	Monongahela Group
ERP00063	E-141557	WVGS#18493	West Virginia	Boone	Allegheny Formation
ERP00063	E-141558	WVGS#18505	West Virginia	Boone	Allegheny Formation

Table 3. -- Contents of moisture, ash and major, minor and trace elements (remnant moisture ba
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Job number	Laboratory number	Field number	State	County	Formation
ERP00063	E-141559	WVGS#18471	West Virginia	Boone	Allegheny Formation
ERP00063	E-141560	WVGS#18485	West Virginia	Kanawha	Allegheny Formation
ERP00063	E-141561	WVGS#18879	West Virginia	Kanawha	Kanawha Formation
ERP00063	E-141562	WVGS#18882	West Virginia	Kanawha	Kanawha Formation
ERP00063	E-141563	WVGS#18881	West Virginia	Kanawha	Kanawha Formation
ERP00063	E-141564	WVGS#18919	West Virginia	Nicholas	Kanawha Formation
ERP00063	E-141565	WVGS#18852	West Virginia	Webster	Kanawha Formation
ERP00063	E-141566	WVGS#18854	West Virginia	Webster	Kanawha Formation
ERP00063	E-141567	WVGS#18245	West Virginia	Mingo	Kanawha Formation
ERP00063	E-141568	WVGS#18926	West Virginia	Nicholas	Kanawha Formation
ERP00063	E-141569	WVGS#18923	West Virginia	Nicholas	Kanawha Formation
ERP00063	E-141570	WVGS#18609	West Virginia	Boone	Kanawha Formation
ERP00063	E-141571	WVGS#18340	West Virginia	Kanawha	Kanawha Formation
ERP00063	E-141572	WVGS#18456	West Virginia	Kanawha	Kanawha Formation
ERP00063	E-141573	WVGS#18457	West Virginia	Kanawha	Kanawha Formation
ERP00063	E-141574	WVGS#18458	West Virginia	Kanawha	Kanawha Formation
ERP00063	E-141575	WVGS#18443	West Virginia	Kanawha	Kanawha Formation
ERP00063	E-141576	WVGS#18423	West Virginia	Wayne	Allegheny Formation
ERP00063	E-141577	WVGS#18436	West Virginia	Wayne	Allegheny Formation
ERP00063	E-141578	WVGS#18847	West Virginia	Webster	Kanawha Formation
ERP00063	E-141579	WVGS#18850	West Virginia	Webster	Kanawha Formation
ERP00063	E-141580	WVGS#18928	West Virginia	Nicholas	Kanawha Formation
ERP00063	E-141581	WVGS#18907	West Virginia	Nicholas	Kanawha Formation
ERP00063	E-141582	WVGS#18611	West Virginia	Boone	Kanawha Formation
ERP00063	E-141583	WVGS#18596	West Virginia	Boone	Kanawha Formation
ERP00063	E-141584	WVGS#18265	West Virginia	Mingo	Kanawha Formation
ERP00063	E-141585	WVGS#18300	West Virginia	Mingo	Allegheny Formation
ERP00063	E-141586	WVGS#18308	West Virginia	Mingo	Allegheny Formation

Table 3. -- Contents of moisture, ash and major, minor and trace elements (remnant moisture ba
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Job number	Laboratory number	Field number	State	County	Formation
ERP00075	E-159650	WVGS#18858	West Virginia	Harrison	Monongahela Group
ERP00075	E-159651	WVGS#18855	West Virginia	Grant	Conemaugh Formation
ERP00075	E-159652	WVGS#18869	West Virginia	Preston	Allegheny Formation
ERP00075	E-159653	WVGS#1184	West Virginia	Fayette	Allegheny Formation
ERP00075	E-159654	WVGS#18218	West Virginia	Mingo	Allegheny Formation
ERP00075	E-159655	WVGS#18327	West Virginia	Kanawha	Kanawha Formation
ERP00075	E-159656	WVGS#11497	West Virginia	Raleigh	Kanawha Formation
ERP00075	E-159657	WVGS#18449	West Virginia	Kanawha	Kanawha Formation
ERP00075	E-159658	WVGS#9696	West Virginia	Kanawha	Kanawha Formation
ERP00075	E-159659	WVGS#15952	West Virginia	Webster	Kanawha Formation
ERP00075	E-159660	WVGS#15986	West Virginia	Webster	Kanawha Formation
ERP00075	E-159661	WVGS#18873	West Virginia	Monongalia	Monongahela Group
ERP00075	E-159662	WVGS#18875	West Virginia	Monongalia	Monongahela Group
ERP00075	E-159663	WVGS#18857	West Virginia	Monongalia	Monongahela Group
ERP00075	E-159664	WVGS#18865	West Virginia	Monongalia	Monongahela Group
ERP00075	E-159665	WVGS#18862	West Virginia	Monongalia	Monongahela Group
ERP00075	E-159666	WVGS#18859	West Virginia	Harrison	Monongahela Group
ERP00075	E-159667	WVGS#18866	West Virginia	Grant	Conemaugh Formation
ERP00075	E-159668	WVGS#18867	West Virginia	Grant	Conemaugh Formation
ERP00075	E-159669	WVGS#18868	West Virginia	Grant	Allegheny Formation
ERP00075	E-159670	WVGS#18872	West Virginia	Preston	Allegheny Formation
ERP00075	E-159671	WVGS#18870	West Virginia	Preston	Allegheny Formation
ERP00075	E-159672	WVGS#18449B	West Virginia	Kanawha	Kanawha Formation
ERP00076	E-159673	WVGS#18904	West Virginia	Boone	Kanawha Formation
ERP00076	E-159674	WVGS#11506	West Virginia	Boone	Allegheny Formation
ERP00076	E-159675	WVGS#11505	West Virginia	Boone	Allegheny Formation
ERP00076	E-159676	WVGS#11503	West Virginia	Boone	Allegheny Formation
ERP00076	E-159677	WVGS#11502	West Virginia	Boone	Kanawha Formation

Table 3. -- Contents of moisture, ash and major, minor and trace elements (remnant moisture ba
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Job number	Laboratory number	Field number	State	County	Formation
ERP00076	E-159678	WVGS#11500	West Virginia	Boone	Kanawha Formation
ERP00076	E-159679	WVGS#11499	West Virginia	Boone	Kanawha Formation
ERP00076	E-159680	WVGS#11498	West Virginia	Boone	Kanawha Formation
ERP00076	E-159681	WVGS#18902	West Virginia	Boone	Kanawha Formation
ERP00076	E-159682	WVGS#18903	West Virginia	Boone	Kanawha Formation
ERP00076	E-159683	WVGS#18991	West Virginia	Boone	Kanawha Formation
ERP00076	E-159684	WVGS#18905	West Virginia	Boone	Kanawha Formation
ERP00076	E-159685	WVGS#7798	West Virginia	Nicholas	Kanawha Formation
ERP00076	E-159686	WVGS#7767	West Virginia	Nicholas	Kanawha Formation
ERP00076	E-159687	WVGS#7796	West Virginia	Nicholas	Kanawha Formation
ERP00076	E-159688	WVGS#7784	West Virginia	Nicholas	Kanawha Formation
ERP00076	E-159689	WVGS#7782	West Virginia	Nicholas	Kanawha Formation
ERP00076	E-159690	WVGS#7775	West Virginia	Nicholas	Kanawha Formation
ERP00076	E-159691	WVGS#7792	West Virginia	Nicholas	Kanawha Formation
ERP00076	E-159692	WVGS#18610	West Virginia	Boone	Kanawha Formation
ERP00076	E-159693	WVGS#9697	West Virginia	Boone	Allegheny Formation
ERP00076	E-159694	WVGS#18902B	West Virginia	Boone	Kanawha Formation
ERP00128	E-183433	WVGS#19478	West Virginia	Boone	Kanawha Formation
ERP00128	E-183434	WVGS#19479	West Virginia	Lincoln	Kanawha Formation
ERP00128	E-183435	WVGS#19483	West Virginia	Lincoln	Allegheny Formation
ERP00128	E-183436	WVGS#19484	West Virginia	Lincoln	Allegheny Formation
ERP00128	E-183437	WVGS#19485	West Virginia	Boone	Kanawha Formation
ERP00128	E-183438	WVGS#19486	West Virginia	Boone	Kanawha Formation
ERP00128	E-183439	WVGS#19488	West Virginia	Boone	Allegheny Formation
ERP00128	E-183440	WVGS#19489	West Virginia	Boone	Kanawha Formation
ERP00128	E-183441	WVGS#19491	West Virginia	Boone	Kanawha Formation
ERP00128	E-183442	WVGS#19492	West Virginia	Lincoln	Kanawha Formation
ERP00128	E-183443	WVGS#19588	West Virginia	Logan	Kanawha Formation

Table 3. -- Contents of moisture, ash and major, minor and trace elements (remnant moisture ba
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Job number	Laboratory number	Field number	State	County	Formation
ERP00128	E-183444	WVGS#19589	West Virginia	Logan	Kanawha Formation
ERP00128	E-183445	WVGS#19590	West Virginia	Logan	Kanawha Formation
ERP00128	E-183446	WVGS#19591	West Virginia	Logan	Kanawha Formation
ERP00128	E-183447	WVGS#19593A	West Virginia	Logan	Kanawha Formation
ERP00128	E-183448	WVGS#19594	West Virginia	Logan	Kanawha Formation
ERP00128	E-183449	WVGS#19595	West Virginia	Logan	Kanawha Formation
ERP00128	E-183450	WVGS#19596A	West Virginia	Logan	Kanawha Formation
ERP00128	E-183451	WVGS#19597	West Virginia	Logan	Allegheny Formation
ERP00128	E-183452	WVGS#19598	West Virginia	Logan	Kanawha Formation
ERP00128	E-183453	WVGS#19599	West Virginia	Logan	Allegheny Formation
ERP00128	E-183454	WVGS#19600	West Virginia	Logan	Kanawha Formation
ERP00128	E-183455	WVGS#19601	West Virginia	Logan	Kanawha Formation
ERP00128	E-183456	WVGS#19602	West Virginia	Logan	Kanawha Formation
ERP00128	E-183457	WVGS#19603	West Virginia	Logan	Kanawha Formation
ERP00128	E-183458	WVGS#19604	West Virginia	Logan	Kanawha Formation
ERP00128	E-183459	WVGS#19633	West Virginia	Braxton	Kanawha Formation
ERP00128	E-183460	WVGS#19634	West Virginia	Braxton	Kanawha Formation
ERP00128	E-183461	WVGS#20000	West Virginia	Braxton	Kanawha Formation
ERP00128	E-183462	WVGS#20001	West Virginia	Upshur	Allegheny Formation
ERP00128	E-183463	WVGS#19593B	West Virginia	Logan	Kanawha Formation
ERP00128	E-183464	WVGS#19596B	West Virginia	Logan	Kanawha Formation
ERP00369	E-218036	WVGS#20003	West Virginia	Logan	Kanawha Formation
ERP00369	E-218037	WVGS#20009	West Virginia	Logan	Kanawha Formation
ERP00369	E-218038	WVGS#20008	West Virginia	Logan	Kanawha Formation
ERP00369	E-218039	WVGS#20048	West Virginia	Logan	Kanawha Formation
ERP00369	E-218040	WVGS#20047	West Virginia	Logan	Kanawha Formation
ERP00369	E-218041	WVGS#21554	West Virginia	Raleigh	New River Formation
ERP00369	E-218042	WVGS#19481	West Virginia	Lincoln	Kanawha Formation

Table 3. -- Contents of moisture, ash and major, minor and trace elements (remnant moisture ba
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Job number	Laboratory number	Field number	State	County	Formation
ERP00369	E-218043	WVGS#21517	West Virginia	Upshur	New River Formation
ERP00369	E-218044	WVGS#21509	West Virginia	Upshur	Kanawha Formation
ERP00369	E-218045	WVGS#21536	West Virginia	Upshur	Allegheny Formation
ERP00369	E-218046	WVGS#19490	West Virginia	Boone	Kanawha Formation
ERP00369	E-218047	WVGS#21626	West Virginia	Boone	Kanawha Formation
ERP00369	E-218048	WVGS#21547	West Virginia	Raleigh	New River Formation
ERP00369	E-218049	WVGS#21692	West Virginia	Logan	Kanawha Formation
ERP00369	E-218050	WVGS#21724	West Virginia	Lewis	Kanawha Formation
ERP00369	E-218051	WVGS#21983	West Virginia	Lewis	Allegheny Formation
ERP00369	E-218052	WVGS#21966	West Virginia	Lewis	Allegheny Formation
ERP00369	E-218053	WVGS#21965	West Virginia	Lewis	Allegheny Formation
ERP00369	E-218054	WVGS#21700	West Virginia	Monongalia	Monongahela Group
ERP00369	E-218055	WVGS#9687	West Virginia	Nicholas	Allegheny Formation
ERP00369	E-218056	WVGS#25242	West Virginia	Monongalia	Monongahela Group
ERP00369	E-218057	WVGS#25239	West Virginia	Monongalia	Monongahela Group
ERP00369	E-218058	WVGS#25237	West Virginia	Monongalia	Monongahela Group
ERP00369	E-218059	WVGS#22193	West Virginia	Harrison	Monongahela Group
ERP00369	E-218060	WVGS#22169	West Virginia	Braxton	Allegheny Formation
ERP00369	E-218061	WVGS#22167	West Virginia	Braxton	Allegheny Formation
ERP00369	E-218062	WVGS#22066	West Virginia	Boone	Kanawha Formation
ERP00369	E-218063	WVGS#22295	West Virginia	Boone	Kanawha Formation
ERP00369	E-218064	WVGS#22280	West Virginia	Boone	Kanawha Formation
ERP00369	E-218065	WVGS#22188	West Virginia	Boone	Kanawha Formation
ERP00369	E-218066	WVGS#21673	West Virginia	Raleigh	New River Formation
ERP00369	E-218067	WVGS#22126	West Virginia	Mingo	Kanawha Formation
ERP00369	E-218068	WVGS#22100	West Virginia	Kanawha	Kanawha Formation
ERP00454	E-245990	WVGS#28476D	West Virginia	Marion	Monogahela Group
ERP00454	E-245991	WVGS#22047	West Virginia	Braxton	Kanawha Formation

Table 3. -- Contents of moisture, ash and major, minor and trace elements (remnant moisture ba
[blank space indicates no data or not analyzed]

Job number	Laboratory number	Field number	State	County	Formation
ERP00454	E-245992	WVGS#22049	West Virginia	Braxton	Allegheny Formation
ERP00454	E-245993	WVGS#22140	West Virginia	Braxton	Allegheny Formation
ERP00454	E-245994	WVGS#22186	West Virginia	Braxton	Allegheny Formation
ERP00454	E-245995	WVGS#22205	West Virginia	Braxton	New River Formation
ERP00454	E-245996	WVGS#22215	West Virginia	Braxton	New River Formation
ERP00454	E-245997	WVGS#22225	West Virginia	Braxton	New River Formation
ERP00454	E-245998	WVGS#22253	West Virginia	Braxton	Allegheny Formation
ERP00454	E-245999	WVGS#22254	West Virginia	Braxton	Allegheny Formation
ERP00454	E-246000	WVGS#22256	West Virginia	Braxton	Allegheny Formation
ERP00454	E-246001	WVGS#22264	West Virginia	Braxton	Conemaugh Formation
ERP00454	E-246002	WVGS#25150	West Virginia	Monongalia	Kanawha Formation
ERP00454	E-246003	WVGS#25151	West Virginia	Monongalia	Kanawha Formation
ERP00454	E-246004	WVGS#25190	West Virginia	Monongalia	Kanawha Formation
ERP00454	E-246005	WVGS#25192	West Virginia	Monongalia	Kanawha Formation
ERP00454	E-246006	WVGS#28252	West Virginia	Marshall	Monogahela Group
ERP00454	E-246007	WVGS#28261	West Virginia	Marshall	Monogahela Group
ERP00454	E-246008	WVGS#28293	West Virginia	Marshall	Monogahela Group
ERP00454	E-246009	WVGS#28347	West Virginia	Marshall	Monogahela Group
ERP00454	E-246010	WVGS#28451	West Virginia	Monongalia	Monogahela Group
ERP00454	E-246011	WVGS#28452	West Virginia	Harrison	Monogahela Group
ERP00454	E-246012	WVGS#28476	West Virginia	Marion	Monogahela Group
ERP00455	E-246013	WVGS#16733	West Virginia	Grant	Allegheny Formation
ERP00455	E-246014	WVGS#16748	West Virginia	Grant	Allegheny Formation
ERP00455	E-246015	WVGS#16760	West Virginia	Grant	Allegheny Formation
ERP00455	E-246016	WVGS#17242	West Virginia	Mingo	Kanawha Formation
ERP00455	E-246017	WVGS#17243	West Virginia	Mingo	Kanawha Formation
ERP00455	E-246018	WVGS#17245	West Virginia	Mingo	Kanawha Formation
ERP00455	E-246019	WVGS#17246	West Virginia	Mingo	Kanawha Formation

Table 3. -- Contents of moisture, ash and major, minor and trace elements (remnant moisture ba
[blank space indicates no data or not analyzed]

Job number	Laboratory number	Field number	State	County	Formation
ERP00455	E-246020	WVGS#17247	West Virginia	Mingo	Kanawha Formation
ERP00455	E-246021	WVGS#17248	West Virginia	Mingo	Kanawha Formation
ERP00455	E-246022	WVGS#17259	West Virginia	Logan	Kanawha Formation
ERP00455	E-246023	WVGS#17261	West Virginia	Logan	Kanawha Formation
ERP00455	E-246024	WVGS#17262	West Virginia	Logan	Kanawha Formation
ERP00455	E-246025	WVGS#17264	West Virginia	Logan	Kanawha Formation
ERP00455	E-246026	WVGS#18052	West Virginia	Wayne	Allegheny Formation
ERP00455	E-246027	WVGS#18055	West Virginia	Wayne	Kanawha Formation
ERP00455	E-246028	WVGS#18057	West Virginia	Wayne	Kanawha Formation
ERP00455	E-246029	WVGS#18059	West Virginia	Wayne	Kanawha Formation
ERP00455	E-246030	WVGS#18406	West Virginia	Wayne	Allegheny Formation
ERP00455	E-246031	WVGS#18408	West Virginia	Wayne	Allegheny Formation
ERP00455	E-246032	WVGS#21939	West Virginia	Lewis	Allegheny Formation
ERP00455	E-246033	WVGS#22014	West Virginia	Braxton	Kanawha Formation
ERP00455	E-246034	WVGS#22038	West Virginia	Braxton	Kanawha Formation
ERP00455	E-246035	WVGS#17261D	West Virginia	Logan	Kanawha Formation

ısis) for 729 National Coal Quality Inventory samples.

Coal	Moisture % (remnant)	Ash % (525oC)	Si %	Al %	Ca %	Mg %	Na %	K %	Fe %
	21.8	14.0	2.21	1.10	0.57	0.093	0.079	0.074	0.43
	22.4	18.1	4.01	2.16	0.87	0.153	0.054	0.120	0.32
	26.8	4.3	0.51	0.26	0.82	0.112	0.054	0.006	0.12
	27.5	3.9	0.35	0.29	0.73	0.103	0.052	0.006	0.13
	31.7	3.6	0.23	0.28	0.64	0.100	0.051	0.005	0.13
	28.5	3.9	0.27	0.24	0.65	0.096	0.049	0.005	0.25
	28.1	7.3	0.95	0.77	0.88	0.123	0.053	0.030	0.18
	28.9	6.8	0.93	0.66	0.81	0.119	0.050	0.036	0.17
	19.0	35.7	10.50	4.14	0.54	0.202	0.072	0.504	0.42
	28.5	4.6	0.48	0.33	0.70	0.100	0.079	0.013	0.14
	28.7	4.6	0.51	0.34	0.73	0.103	0.061	0.013	0.14
	26.2	4.5	0.47	0.27	0.76	0.103	0.047	0.007	0.13
	27.0	4.6	0.49	0.28	0.81	0.111	0.051	0.008	0.15
Wyodak coal zone	22.4	5.7	0.73	0.45	0.99	0.126	0.059	0.012	0.19
Wyodak coal zone	16.8	6.5	0.89	0.54	1.05	0.138	0.073	0.016	0.22
Wyodak coal zone	25.9	5.7	0.71	0.46	1.00	0.129	0.067	0.014	0.19
Wyodak coal zone	23.6	6.1	0.85	0.51	0.62	0.132	0.063	0.018	0.20
Wyodak coal zone	26.0	6.4	0.91	0.61	0.92	0.136	0.062	0.024	0.25
Wyodak coal zone	12.7	7.4	1.07	0.72	1.03	0.153	0.072	0.028	0.30
Wyodak coal zone	23.9	6.3	0.80	0.55	0.93	0.133	0.061	0.019	0.23
Wyodak coal zone	21.4	6.9	0.98	0.59	0.98	0.141	0.067	0.028	0.25
Wyodak coal zone	25.1	5.6	0.76	0.47	1.00	0.153	0.063	0.016	0.20
Wyodak coal zone	25.6	5.4	0.70	0.43	0.95	0.136	0.064	0.013	0.17
Wyodak coal zone	25.2	5.4	0.66	0.41	0.91	0.133	0.060	0.012	0.18

ısis) for 729 National Coal Quality Inventory samples.

Coal	Moisture % (remnant)	Ash % (525oC)	Si %	Al %	Ca %	Mg %	Na %	K %	Fe %
Wyodak coal zone	13.5	6.7	0.83	0.52	1.04	0.157	0.069	0.019	0.21
Anderson coal	17.8	14.0	3.47	1.10	0.95	0.228	0.049	0.186	0.50
Anderson coal	12.3	17.4	4.50	1.36	1.16	0.283	0.056	0.260	0.67
Anderson coal	18.6	14.0	3.00	1.02	1.39	0.296	0.049	0.163	0.51
Anderson coal	13.4	13.9	3.22	1.00	1.17	0.251	0.046	0.173	0.48
Canyon coal	13.6	6.3	0.85	0.50	1.01	0.218	0.070	0.023	0.28
Canyon coal	10.8	6.8	1.20	0.52	0.79	0.173	0.071	0.037	0.33
Canyon coal	16.8	7.7	1.37	0.58	0.90	0.194	0.074	0.045	0.34
Canyon coal	16.8	8.3	1.47	0.63	1.00	0.216	0.068	0.047	0.31
Wyodak coal zone	22.7	7.7	0.85	0.57	1.06	0.130	0.080	0.022	0.41
Wyodak coal zone	12.3	9.9	1.30	0.80	1.09	0.137	0.081	0.043	0.53
Wyodak coal zone	21.8	6.7	0.61	0.44	0.92	0.126	0.065	0.015	0.47
Wyodak coal zone	21.6	8.1	0.90	0.63	1.13	0.142	0.073	0.023	0.45
Wyodak coal zone	21.6	5.7	0.60	0.42	0.92	0.157	0.071	0.011	0.25
Wyodak coal zone	22.2	6.3	0.77	0.48	1.03	0.166	0.079	0.013	0.32
Wyodak coal zone	14.0	5.3	0.61	0.40	0.87	0.142	0.062	0.009	0.26
Wyodak coal zone	20.7	5.4	0.70	0.41	0.88	0.144	0.068	0.010	0.25
Wyodak coal zone	26.4	5.5	0.75	0.44	0.87	0.130	0.062	0.017	0.17
Anderson coal	16.5	14.7	3.46	1.09	1.07	0.248	0.052	0.195	0.48
Wyodak coal zone	25.0	6.6	1.00	0.59	0.94	0.147	0.066	0.028	0.22
Wyodak coal zone	24.1	6.6	1.03	0.60	0.90	0.147	0.064	0.029	0.23
Wyodak coal zone	25.5	6.3	0.96	0.62	0.94	0.145	0.065	0.021	0.24
Wyodak coal zone	24.6	6.5	0.96	0.61	0.96	0.142	0.069	0.021	0.24
Wyodak coal zone	24.8	5.9	0.79	0.48	0.94	0.137	0.069	0.015	0.23
Wyodak coal zone	21.8	6.1	0.79	0.53	0.96	0.146	0.071	0.014	0.23
Wyodak coal zone	24.1	5.5	0.70	0.48	0.86	0.129	0.063	0.013	0.21
Wyodak coal zone	21.9	6.1	0.76	0.53	1.02	0.154	0.074	0.013	0.23
Wyodak coal zone	23.6	6.3	0.87	0.55	1.01	0.147	0.070	0.016	0.24

ısis) for 729 National Coal Quality Inventory samples.

Coal	Moisture % (remnant)	Ash % (525oC)	Si %	Al %	Ca %	Mg %	Na %	K %	Fe %
Wyodak coal zone	24.0	6.2	0.85	0.54	0.96	0.144	0.072	0.015	0.23
Wyodak coal zone	23.7	6.3	0.83	0.54	1.02	0.154	0.067	0.015	0.24
Wyodak coal zone	27.7	5.4	0.65	0.44	0.88	0.135	0.066	0.010	0.20
Wyodak coal zone	24.9	5.5	0.68	0.46	0.96	0.139	0.066	0.010	0.21
Wyodak coal zone	25.6	5.6	0.70	0.46	0.92	0.136	0.069	0.011	0.20
Wyodak coal zone	26.9	5.4	0.70	0.45	0.89	0.133	0.068	0.011	0.21
Wyodak coal zone	24.9	5.8	0.75	0.49	0.91	0.138	0.066	0.013	0.22
Wyodak coal zone	26.7	5.7	0.75	0.47	0.88	0.138	0.068	0.014	0.21
Wyodak coal zone	26.2	5.8	0.78	0.47	0.90	0.135	0.068	0.014	0.22
Wyodak coal zone	26.5	5.8	0.80	0.48	0.89	0.137	0.067	0.014	0.21
Wyodak coal zone	23.8	5.4	0.73	0.45	0.87	0.141	0.060	0.014	0.17
Wyodak coal zone	22.1	5.4	0.75	0.44	0.86	0.141	0.061	0.015	0.17
Wyodak coal zone	22.5	5.5	0.74	0.46	0.89	0.144	0.065	0.014	0.19
Wyodak coal zone	22.6	5.4	0.71	0.46	0.87	0.144	0.065	0.013	0.19
Wyodak coal zone	23.7	6.1	0.92	0.56	0.86	0.145	0.056	0.024	0.19
Wyodak coal zone	24.6	5.5	0.80	0.47	0.88	0.145	0.058	0.017	0.18
Wyodak coal zone	24.2	5.4	0.76	0.46	0.85	0.140	0.060	0.016	0.18
Wyodak coal zone	22.8	5.7	0.83	0.50	0.84	0.142	0.060	0.018	0.19
Wyodak coal zone	19.7	6.7	1.04	0.70	0.86	0.148	0.065	0.027	0.27
Wyodak coal zone	23.3	6.6	1.04	0.67	0.89	0.151	0.064	0.026	0.28
Wyodak coal zone	22.8	6.5	1.11	0.67	0.84	0.145	0.061	0.027	0.27
Wyodak coal zone	20.8	5.8	0.81	0.51	0.96	0.146	0.069	0.013	0.23
Wyodak coal zone	24.1	5.3	0.78	0.44	0.90	0.145	0.060	0.015	0.18
Wyodak coal zone	23.7	6.3	0.95	0.61	0.85	0.137	0.065	0.019	0.25
Wyodak coal zone	23.3	6.1	0.92	0.60	0.90	0.141	0.061	0.017	0.24
Wyodak coal zone	24.8	6.1	0.89	0.58	0.84	0.136	0.062	0.016	0.23
Wyodak coal zone	23.3	6.2	0.94	0.60	0.86	0.138	0.062	0.016	0.23
Wyodak coal zone	23.8	6.4	1.05	0.64	0.84	0.134	0.061	0.022	0.24

ısis) for 729 National Coal Quality Inventory samples.

Coal	Moisture % (remnant)	Ash % (525oC)	Si %	Al %	Ca %	Mg %	Na %	K %	Fe %
Wyodak coal zone	22.0	6.3	0.98	0.62	0.86	0.141	0.064	0.017	0.25
Wyodak coal zone	22.4	6.2	0.93	0.60	0.83	0.139	0.061	0.016	0.25
Wyodak coal zone	20.3	6.4	0.99	0.62	0.90	0.146	0.064	0.016	0.26
Wyodak coal zone	22.0	6.1	0.94	0.60	0.87	0.143	0.060	0.015	0.25
Wyodak coal zone	24.7	5.6	0.74	0.49	0.88	0.137	0.066	0.007	0.19
Wyodak coal zone	24.0	5.5	0.72	0.48	0.86	0.136	0.068	0.006	0.19
Wyodak coal zone	25.3	5.5	0.70	0.49	0.91	0.144	0.067	0.006	0.20
Wyodak coal zone	24.7	5.6	0.72	0.48	0.87	0.140	0.065	0.007	0.21
Wyodak coal zone	25.8	5.7	0.82	0.53	0.85	0.135	0.066	0.008	0.22
Anderson coal	10.1	7.2	0.99	0.51	1.11	0.245	0.050	0.028	0.28
Anderson coal	9.2	6.5	0.87	0.44	1.10	0.241	0.049	0.017	0.24
Anderson coal	10.7	6.9	1.08	0.46	1.07	0.230	0.048	0.018	0.21
Anderson coal	9.4	7.0	1.18	0.46	1.12	0.241	0.047	0.020	0.23
Anderson coal	9.7	7.0	1.04	0.46	1.06	0.233	0.045	0.018	0.25
Anderson coal	11.4	7.4	1.17	0.49	1.10	0.237	0.049	0.020	0.27
Canyon coal	8.6	7.3	1.37	0.67	0.80	0.191	0.082	0.029	0.32
Canyon coal	10.3	6.6	1.11	0.60	0.79	0.183	0.080	0.023	0.27
Canyon coal	9.4	6.6	1.10	0.58	0.78	0.183	0.077	0.020	0.34
Canyon coal	10.2	6.3	1.06	0.56	0.75	0.179	0.073	0.017	0.27
Canyon coal	8.8	6.7	1.12	0.61	0.81	0.188	0.083	0.023	0.29
Canyon coal	10.6	7.1	1.23	0.65	0.84	0.198	0.081	0.029	0.30
Wyodak coal zone	9.7	9.7	1.55	0.92	0.99	0.168	0.091	0.044	0.49
Wyodak coal zone	10.6	9.1	1.40	0.82	1.08	0.174	0.093	0.033	0.43
Wyodak coal zone	9.1	6.4	0.88	0.50	0.91	0.169	0.084	0.006	0.28
Wyodak coal zone	10.7	6.1	0.73	0.48	0.98	0.176	0.086	0.003	0.28
Wyodak coal zone	23.9	5.7	0.74	0.49	0.88	0.141	0.069	0.006	0.20
Wyodak coal zone	22.0	6.3	0.92	0.60	0.85	0.140	0.063	0.012	0.24

ısis) for 729 National Coal Quality Inventory samples.

Coal	Moisture % (remnant)	Ash % (525oC)	Si %	Al %	Ca %	Mg %	Na %	K %	Fe %
	8.3	10.0	2.04	0.69	0.50	0.144	0.328	0.053	0.33
	7.0	9.0	1.84	0.56	0.58	0.195	0.199	0.024	0.28
	9.2	5.8	0.79	0.28	0.58	0.217	0.022	0.008	0.32
	6.2	11.2	2.92	0.74	0.36	0.090	0.253	0.025	0.28
	6.0	9.9	2.48	0.73	0.27	0.064	0.282	0.030	0.34
	5.9	3.1	0.49	0.19	0.27	0.095	0.096	0.006	0.06
	6.0	4.7	0.82	0.56	0.28	0.093	0.084	0.006	0.06
	6.0	3.7	0.53	0.37	0.31	0.104	0.091	0.005	0.05
	6.1	3.4	0.58	0.24	0.28	0.095	0.086	0.008	0.08
	7.0	4.9	1.12	0.48	0.07	0.014	0.001	0.017	0.42
	5.4	7.0	2.20	0.53	0.07	0.019	0.001	0.044	0.42
	6.0	9.2	2.48	0.70	0.55	0.026	0.116	0.015	0.26
	5.0	13.9	2.83	0.91	1.15	0.060	0.155	0.039	1.55
	4.7	28.9	8.62	3.01	0.58	0.141	0.236	0.264	1.15
	6.2	8.6	2.20	0.64	0.58	0.033	0.115	0.021	0.33
	5.1	13.0	2.59	0.85	1.18	0.061	0.154	0.039	1.27
	1.5	36.3	10.40	5.30	0.29	0.204	0.035	0.693	0.71
	1.5	40.7	11.30	5.62	0.17	0.120	0.045	0.284	1.25
	1.3	13.3	3.50	2.29	0.09	0.017	0.020	0.024	0.10
	1.7	7.2	1.88	1.09	0.04	0.023	0.020	0.022	0.39
	1.6	4.7	0.94	0.77	0.23	0.011	0.009	0.003	0.21
	1.7	6.4	1.60	0.97	0.03	0.012	0.029	0.016	0.55
	4.5	8.7	1.74	1.13	0.34	0.074	0.090	0.048	0.21
	3.8	8.0	1.66	1.27	0.54	0.125	0.083	0.051	0.19
Wadge coal	8.0	8.5	2.03	0.99	0.42	0.092	0.018	0.057	0.20
	8.4	14.0	3.87	1.56	0.34	0.127	0.102	0.139	0.23

ısis) for 729 National Coal Quality Inventory samples.

Coal	Moisture % (remnant)	Ash % (525oC)	Si %	Al %	Ca %	Mg %	Na %	K %	Fe %
	7.6	13.6	3.39	1.69	0.50	0.107	0.030	0.147	0.24
nber	1.9	8.5	2.14	1.02	0.20	0.087	0.259	0.070	0.40
	11.3	4.7	0.59	0.43	0.63	0.065	0.010	0.004	0.18
	12.0	8.5	1.68	0.89	0.64	0.138	0.022	0.066	0.27
	8.6	16.2	4.17	2.07	0.58	0.166	0.144	0.085	0.30
	8.8	10.5	2.39	1.29	0.48	0.146	0.125	0.034	0.29
	3.8	11.8	3.50	1.79	0.09	0.031	0.042	0.051	0.09
nber	2.9	3.8	0.61	0.59	0.29	0.028	0.031	0.003	0.21
nber	2.8	6.1	1.17	0.97	0.24	0.041	0.072	0.009	0.31
	30.8	6.0	1.22	0.61	0.41	0.087	0.010	0.024	0.18
	9.1	7.1	1.37	0.91	0.46	0.090	0.007	0.026	0.19
	12.0	6.7	1.35	0.64	0.55	0.117	0.013	0.023	0.19
	9.4	8.8	1.86	1.16	0.45	0.080	0.034	0.088	0.16
	10.2	6.4	1.30	0.83	0.28	0.043	0.076	0.023	0.13
	4.6	8.0	1.87	1.10	0.13	0.077	0.142	0.035	0.30
	2.2	7.3	1.89	1.00	0.04	0.022	0.141	0.037	0.31
	1.9	21.4	6.00	3.21	0.08	0.063	0.073	0.165	0.66
nber	3.4	7.3	1.69	0.94	0.20	0.057	0.006	0.067	0.37
	3.1	7.2	1.56	1.11	0.20	0.056	0.051	0.024	0.28
nber	2.2	9.8	2.53	1.11	0.23	0.124	0.204	0.047	0.39
	3.9	10.9	2.89	1.77	0.13	0.031	0.251	0.034	0.15
Wadge coal	7.2	17.2	5.19	1.61	0.42	0.135	0.045	0.200	0.28
	7.7	8.1	1.72	1.06	0.37	0.073	0.066	0.053	0.18
	4.9	10.3	2.48	1.36	0.35	0.087	0.084	0.103	0.27
	0.5	5.6	1.19	0.71	0.11	0.041	0.096	0.038	0.20
	0.7	5.2	1.10	0.70	0.11	0.041	0.085	0.029	0.23
	1.1	14.2	3.79	1.61	0.40	0.154	0.085	0.107	0.39
	1.1	11.9	3.14	1.42	0.25	0.122	0.074	0.088	0.22

ısis) for 729 National Coal Quality Inventory samples.

Coal	Moisture % (remnant)	Ash % (525oC)	Si %	Al %	Ca %	Mg %	Na %	K %	Fe %
	0.7	7.0	1.55	0.86	0.28	0.089	0.088	0.024	0.17
	1.1	1.3	0.15	0.13	0.11	0.012	0.033	0.002	0.04
	1.0	2.8	0.52	0.44	0.12	0.022	0.037	0.006	0.06
	1.5	2.7	0.47	0.31	0.13	0.024	0.030	0.008	0.10
	0.9	4.3	0.79	0.48	0.23	0.036	0.140	0.016	0.13
	0.9	1.8	0.36	0.15	0.11	0.028	0.036	0.021	0.07
	1.2	3.1	0.49	0.37	0.20	0.030	0.129	0.007	0.12
	1.2	2.3	0.31	0.27	0.19	0.026	0.038	0.004	0.08
	1.9	3.2	0.54	0.21	0.22	0.054	0.008	0.022	0.16
	1.7	4.1	0.69	0.48	0.32	0.077	0.019	0.015	0.13
	0.3	7.0	1.31	0.81	0.54	0.080	0.015	0.087	0.25
	0.3	7.6	1.34	0.95	0.54	0.087	0.018	0.069	0.32
	0.8	4.7	1.07	0.68	0.12	0.040	0.077	0.030	0.23
Iron Post coal		6.5	0.27	0.19	0.24	0.016	0.012	0.029	3.36
Iron Post coal		6.9	0.52	0.26	0.94	0.022	0.017	0.049	1.83
Croweburg coal		7.9	1.07	0.50	1.36	0.048	0.019	0.111	0.83
Mineral coal	2.3	8.0	0.55	0.32	1.15	0.068	0.026	0.053	1.70
Stiger coal	0.4	9.4	0.49	0.41	0.90	0.057	0.011	0.044	3.32
Lower Hartshorne coal	0.4	10.8	0.85	0.53	1.16	0.638	0.088	0.083	1.74
Iron Post coal	1.5	5.9	0.60	0.26	0.81	0.021	0.022	0.043	1.44
Croweburg coal	12.1	6.9	1.35	0.63	1.11	0.056	0.023	0.144	0.19
Danville Coal Member		18.0	3.70	1.81	0.93	0.104	0.118	0.299	2.90
Herrin Coal Member	6.2	13.9	2.08	1.03	0.45	0.101	0.051	0.300	3.01
Herrin Coal Member	9.7	10.1	2.22	1.34	0.14	0.059	0.063	0.210	0.45

ısis) for 729 National Coal Quality Inventory samples.

Coal	Moisture % (remnant)	Ash % (525oC)	Si %	Al %	Ca %	Mg %	Na %	K %	Fe %
Springfield Coal Member	2.3	19.9	2.98	1.26	0.61	0.061	0.068	0.281	4.87
Murphysboro Coal Member	9.7	7.5	1.04	0.66	0.05	0.031	0.008	0.143	1.36
Murphysboro Coal Member	9.5	8.2	1.43	0.83	0.04	0.036	0.007	0.163	2.39
Murphysboro Coal Member	10.2	6.8	1.15	0.62	0.05	0.027	0.007	0.124	1.58
Herrin Coal Member	2.2	12.2	2.27	1.27	0.16	0.055	0.011	0.223	2.92
Herrin Coal Member	2.3	12.2	2.72	1.39	0.11	0.049	0.015	0.223	2.41
Herrin Coal Member	2.0	12.1	2.36	1.24	0.23	0.095	0.016	0.211	1.93
Herrin Coal Member	7.5	9.4	1.85	0.94	0.61	0.074	0.013	0.133	1.34
Danville Coal Member	2.6	11.4	1.81	0.91	0.53	0.060	0.064	0.189	2.31
Hymera Coal Member	2.3	22.9	4.39	1.94	0.59	0.108	0.131	0.399	4.16
Herrin Coal Member	2.6	10.1	1.79	0.91	0.31	0.041	0.058	0.159	1.98
Springfield Coal Member	2.3	16.0	1.72	0.79	0.55	0.031	0.039	0.120	5.48
Houchin Creek Coal Member	2.3	15.6	3.43	1.40	0.21	0.079	0.089	0.311	2.29
Survant Coal Member	3.0	12.1	2.60	1.47	0.22	0.073	0.077	0.261	1.27
Colchester Coal Member	1.5	24.1	3.15	1.40	1.07	0.079	0.068	0.220	6.24
Seeleyville Coal Member	2.2	12.1	1.07	0.54	0.47	0.033	0.041	0.100	3.98
Davis Coal Member	1.9	15.4	1.37	0.82	0.66	0.037	0.038	0.120	5.60
Holland Coal Member	2.1	20.9	3.13	1.55	0.19	0.107	0.110	0.451	6.14
Buffaloville Coal Member	1.7	8.9	0.46	0.26	0.50	0.018	0.026	0.008	3.36
Lower Block Coal Member	2.2	14.3	2.81	1.66	0.26	0.045	0.088	0.249	2.10
uncorrelated coal	2.6	11.2	2.15	1.13	0.36	0.074	0.080	0.260	1.49
uncorrelated coal	3.0	9.3	1.52	0.84	0.09	0.036	0.048	0.131	2.08
uncorrelated coal	2.6	20.2	1.98	0.98	1.33	0.054	0.055	0.184	5.65
uncorrelated coal	2.3	17.7	3.23	1.31	0.89	0.084	0.095	0.338	1.98
uncorrelated coal	1.9	14.6	1.71	1.16	0.19	0.033	0.063	0.145	5.00
uncorrelated coal	2.4	11.0	1.70	1.05	0.04	0.038	0.098	0.174	2.15
uncorrelated coal	3.3	7.1	1.49	0.90	0.06	0.029	0.111	0.130	0.46
uncorrelated coal	2.2	13.1	1.71	0.90	0.65	0.039	0.073	0.163	2.93

ısis) for 729 National Coal Quality Inventory samples.

Coal	Moisture % (remnant)	Ash % (525oC)	Si %	Al %	Ca %	Mg %	Na %	K %	Fe %
uncorrelated coal	1.6	17.9	2.43	1.14	0.42	0.046	0.064	0.193	5.01
Upper Block Coal Member	2.7	2.2	0.51	0.32	0.02	0.008	0.015	0.023	0.20
Upper Block Coal Member	2.8	6.7	1.57	0.83	0.45	0.021	0.021	0.085	0.18
Upper Block Coal Member	2.4	7.8	1.99	1.17	0.11	0.027	0.023	0.072	0.29
Lower Block Coal Member	2.8	4.9	0.81	0.47	0.02	0.011	0.015	0.055	1.34
Lower Block Coal Member	2.4	7.1	1.66	0.89	0.02	0.022	0.024	0.122	0.89
Lower Block Coal Member	2.0	4.0	0.89	0.51	0.02	0.005	0.012	0.017	0.60
Lower Block Coal Member	2.1	5.6	1.06	0.86	0.03	0.011	0.016	0.032	0.83
Lower Block Coal Member	2.5	4.4	0.71	0.42	0.19	0.015	0.029	0.056	1.02
Lower Block Coal Member	2.4	7.8	2.16	1.02	0.14	0.026	0.041	0.134	0.28
Lower Block Coal Member	2.2	5.0	0.78	0.51	0.10	0.010	0.036	0.034	1.27
Lower Block Coal Member	2.1	4.8	1.08	0.78	0.04	0.009	0.031	0.025	0.37
Upper Block Coal Member	2.5	6.3	1.49	0.79	0.09	0.017	0.009	0.074	0.67
Upper Block Coal Member	2.1	17.7	4.35	3.16	0.20	0.070	0.026	0.227	0.55
Upper Block Coal Member	2.1	14.7	2.17	1.92	0.67	0.047	0.021	0.146	2.69
Minshall Coal Member	2.9	9.1	0.82	0.49	0.03	0.018	0.006	0.051	3.98
Minshall Coal Member	2.4	8.0	0.74	0.47	0.03	0.017	0.005	0.047	3.58
Minshall Coal Member	2.4	7.1	0.39	0.33	0.03	0.008	0.004	0.009	3.54
Minshall Coal Member	2.4	3.8	0.34	0.30	0.03	0.009	0.003	0.006	1.60
Minshall Coal Member	2.1	10.3	1.87	1.56	0.04	0.034	0.012	0.173	1.73
Minshall Coal Member	2.4	9.9	1.88	1.54	0.03	0.034	0.011	0.172	1.45
Upper Block Coal Member	2.3	6.6	0.81	0.77	0.13	0.012	0.007	0.037	1.85
Upper Block Coal Member	2.3	4.6	0.67	0.68	0.09	0.011	0.006	0.033	0.80
Upper Block Coal Member	2.1	4.7	0.26	0.24	0.16	0.006	0.004	0.018	2.07
Upper Block Coal Member	2.3	2.8	0.22	0.21	0.10	0.005	0.004	0.017	0.98
Upper Block Coal Member	2.2	4.8	0.53	0.45	0.06	0.011	0.004	0.048	1.60
Upper Block Coal Member	2.1	3.5	0.52	0.43	0.05	0.012	0.005	0.054	0.76
Danville Coal Member	2.3	4.7	0.90	0.51	0.28	0.021	0.009	0.081	0.53

ısis) for 729 National Coal Quality Inventory samples.

Coal	Moisture % (remnant)	Ash % (525oC)	Si %	Al %	Ca %	Mg %	Na %	K %	Fe %
Danville Coal Member	2.3	3.8	0.87	0.46	0.06	0.017	0.008	0.080	0.41
Danville Coal Member	1.8	11.6	3.00	1.44	0.11	0.080	0.024	0.284	0.70
Danville Coal Member	2.3	10.9	2.86	1.37	0.04	0.076	0.022	0.276	0.62
Danville Coal Member	2.2	13.0	3.41	1.60	0.06	0.102	0.027	0.331	0.95
Danville Coal Member	2.3	12.8	3.48	1.61	0.04	0.103	0.027	0.337	0.67
Danville Coal Member	2.6	8.4	2.12	1.08	0.05	0.070	0.016	0.196	0.81
Danville Coal Member	2.5	7.1	1.85	0.95	0.04	0.059	0.015	0.172	0.55
Lower Block Coal Member	1.3	3.8	0.95	0.53	0.02	0.005	0.013	0.017	0.38
Minshall Coal Member	1.5	8.0	0.81	0.49	0.03	0.017	0.005	0.051	3.58
Upper Block Coal Member	1.4	3.5	0.56	0.45	0.05	0.013	0.005	0.056	0.79
Danville Coal Member	1.9	5.4	1.19	0.67	0.14	0.029	0.014	0.108	0.57
Danville Coal Member	2.0	4.7	1.18	0.62	0.04	0.028	0.011	0.109	0.41
Danville Coal Member	2.2	12.8	3.30	1.66	0.16	0.100	0.030	0.319	0.89
Danville Coal Member	2.1	12.0	3.23	1.63	0.06	0.101	0.029	0.329	0.51
Danville Coal Member	2.4	8.9	2.28	1.16	0.05	0.075	0.021	0.214	0.78
Danville Coal Member	3.2	8.1	2.09	1.05	0.03	0.068	0.019	0.195	0.74
Hymera Coal Member	2.6	13.0	2.17	0.85	0.27	0.044	0.048	0.151	4.13
Hymera Coal Member	2.1	7.1	0.78	0.34	0.15	0.016	0.017	0.052	3.02
Hymera Coal Member	2.3	7.5	1.01	0.54	0.13	0.021	0.022	0.075	2.15
Hymera Coal Member	2.1	6.4	1.01	0.50	0.06	0.019	0.021	0.074	1.90
Hymera Coal Member	2.0	16.8	3.89	1.59	0.22	0.111	0.065	0.377	2.08
Hymera Coal Member	1.9	14.3	3.62	1.48	0.10	0.103	0.061	0.356	1.93
Danville Coal Member	1.7	20.9	6.27	2.26	0.09	0.227	0.217	0.625	0.98
Danville Coal Member	1.8	8.2	2.05	0.92	0.03	0.064	0.073	0.265	0.47
Danville Coal Member	2.0	12.3	3.63	1.65	0.10	0.111	0.091	0.347	0.39
Danville Coal Member	2.0	11.9	3.73	1.67	0.03	0.100	0.088	0.346	0.34
Danville Coal Member	2.5	6.6	1.58	0.86	0.30	0.052	0.045	0.170	0.19
Danville Coal Member	2.5	5.7	1.58	0.84	0.04	0.048	0.041	0.180	0.16

ısis) for 729 National Coal Quality Inventory samples.

Coal	Moisture % (remnant)	Ash % (525oC)	Si %	Al %	Ca %	Mg %	Na %	K %	Fe %
Danville Coal Member	2.4	7.5	1.79	0.93	0.17	0.072	0.049	0.181	0.49
Danville Coal Member	2.3	6.8	1.81	0.91	0.04	0.066	0.047	0.181	0.31
Danville Coal Member	1.8	33.6	8.36	3.88	0.82	0.486	0.194	0.948	1.83
Danville Coal Member	2.0	10.0	2.71	1.34	0.07	0.097	0.082	0.299	0.39
Mariah Hill Coal Member	2.1	3.0	0.51	0.43	0.23	0.006	0.020	0.015	0.21
Mariah Hill Coal Member	2.2	1.9	0.38	0.35	0.03	0.003	0.017	0.008	0.12
Mariah Hill Coal Member	2.3	3.0	0.36	0.31	0.50	0.006	0.021	0.009	0.20
Mariah Hill Coal Member	2.3	1.3	0.27	0.24	0.01	0.003	0.016	0.008	0.10
Mariah Hill Coal Member	2.2	6.9	1.39	1.09	0.37	0.037	0.038	0.172	0.29
Mariah Hill Coal Member	2.2	5.0	1.14	0.90	0.03	0.028	0.037	0.145	0.22
unnamed coal	1.8	9.7	1.51	0.61	0.09	0.013	0.032	0.056	3.04
unnamed coal	1.7	7.4	1.45	0.58	0.03	0.008	0.031	0.041	1.93
unnamed coal	1.8	3.9	0.51	0.38	0.11	0.004	0.023	0.005	1.16
unnamed coal	1.8	3.3	0.59	0.35	0.05	0.003	0.027	0.004	0.98
unnamed coal	1.7	6.3	1.11	1.07	0.11	0.006	0.031	0.012	0.93
unnamed coal	1.6	5.6	1.08	1.03	0.03	0.006	0.033	0.013	0.55
unnamed coal	1.8	10.1	2.12	1.76	0.08	0.031	0.048	0.101	1.24
unnamed coal	1.6	9.9	2.20	1.78	0.07	0.033	0.049	0.123	1.15
unnamed coal	1.2	7.5	1.51	0.62	0.03	0.009	0.031	0.044	1.78
Danville Coal Member	2.0	13.0	3.07	1.58	0.20	0.102	0.028	0.335	0.91
Hymera Coal Member	2.1	6.7	1.12	0.59	0.05	0.022	0.020	0.089	2.13
Lower Block Coal Member	8.1	4.4	0.99	0.57	0.03	0.019	0.013	0.074	0.17
Lower Block Coal Member	2.9	4.1	1.03	0.56	0.02	0.019	0.013	0.084	0.14
Lower Block Coal Member	5.5	3.9	0.98	0.60	0.03	0.009	0.012	0.032	0.17
Lower Block Coal Member	2.8	3.4	0.85	0.54	0.02	0.009	0.010	0.022	0.11
Lower Block Coal Member	3.8	5.2	0.95	0.78	0.03	0.010	0.014	0.025	0.59
Lower Block Coal Member	4.0	4.6	0.95	0.77	0.02	0.009	0.013	0.025	0.30
unnamed coal	7.3	5.0	0.73	0.44	0.03	0.016	0.027	0.071	1.16

ısis) for 729 National Coal Quality Inventory samples.

Coal	Moisture % (remnant)	Ash % (525oC)	Si %	Al %	Ca %	Mg %	Na %	K %	Fe %
unnamed coal	6.6	4.0	0.58	0.37	0.02	0.012	0.027	0.057	1.08
unnamed coal	5.6	8.8	2.23	1.36	0.02	0.020	0.036	0.095	0.34
unnamed coal	5.0	9.2	2.48	1.51	0.02	0.022	0.037	0.091	0.19
unnamed coal	7.6	5.0	1.02	0.76	0.03	0.017	0.027	0.054	0.51
unnamed coal	6.3	4.3	0.96	0.76	0.02	0.014	0.030	0.058	0.18
unnamed coal	8.1	9.7	1.24	0.98	0.02	0.016	0.033	0.066	1.10
unnamed coal	6.8	5.9	1.27	0.99	0.01	0.015	0.032	0.069	0.47
prepared coal	2.6	16.5	2.75	1.37	0.83	0.092	0.070	0.342	2.89
prepared coal	2.6	14.2	2.31	1.17	0.80	0.081	0.062	0.248	2.61
prepared coal	2.7	13.3	2.16	1.05	0.69	0.071	0.050	0.221	2.39
prepared coal	2.5	14.3	2.15	1.10	0.78	0.072	0.057	0.237	2.28
prepared coal	2.3	15.4	2.38	1.21	0.81	0.083	0.059	0.268	2.87
prepared coal	3.3	9.9	2.40	1.14	0.10	0.078	0.074	0.248	0.40
prepared coal	3.3	10.4	2.66	1.23	0.10	0.088	0.100	0.294	0.36
prepared coal	7.3	9.8	2.49	1.20	0.09	0.083	0.088	0.261	0.39
Springfield Coal Member	3.5	13.2	1.84	0.89	0.74	0.057	0.041	0.197	2.81
Springfield Coal Member	2.5	9.1	1.72	0.82	0.22	0.050	0.039	0.174	1.52
Springfield Coal Member	5.0	13.0	2.78	1.38	0.81	0.067	0.056	0.237	0.65
Springfield Coal Member	2.5	9.9	2.21	1.08	0.32	0.049	0.047	0.188	0.67
Springfield Coal Member	4.2	11.6	1.10	0.73	0.51	0.025	0.038	0.093	4.14
Springfield Coal Member	2.6	6.0	1.09	0.73	0.17	0.019	0.039	0.094	0.79
Springfield Coal Member	3.7	15.5	1.69	0.98	0.14	0.049	0.046	0.206	5.40
Springfield Coal Member	2.7	7.5	1.52	0.94	0.04	0.042	0.046	0.181	0.97
Springfield Coal Member	6.2	14.3	3.14	1.50	0.15	0.095	0.067	0.344	1.58
Springfield Coal Member	2.6	11.7	2.64	1.28	0.04	0.078	0.060	0.291	1.32
Lower Block Coal Member	5.4	3.9	0.94	0.59	0.03	0.009	0.012	0.025	0.17
Springfield Coal Member	5.0	11.5	1.17	0.75	0.44	0.024	0.035	0.096	3.75
fly ash	0.7	77.3	21.50	9.65	1.27	0.699	0.539	2.120	4.76

ısis) for 729 National Coal Quality Inventory samples.

Coal	Moisture % (remnant)	Ash % (525oC)	Si %	Al %	Ca %	Mg %	Na %	K %	Fe %
fly ash	0.7	69.5	19.10	8.35	1.99	0.587	0.490	1.730	4.47
fly ash	0.7	76.5	20.10	8.79	1.64	0.646	0.545	1.840	4.82
fly ash	0.7	81.5	24.00	10.80	0.76	0.737	0.665	2.370	3.14
fly ash	0.9	73.3	21.80	10.00	0.89	0.663	0.598	2.190	3.08
fly ash	0.9	74.1	20.40	9.41	0.90	0.626	0.550	2.090	2.90
fly ash	1.0	64.4	16.40	7.67	2.76	0.544	0.373	1.550	4.32
fly ash	0.9	72.5	19.60	8.98	1.35	0.612	0.538	2.050	3.60
hopper ash	0.3	98.1	26.60	11.70	1.12	0.769	0.728	2.520	8.03
fly ash	0.5	95.7	18.70	8.91	5.81	0.577	0.390	1.910	18.50
fly ash	0.4	95.9	18.20	8.63	6.44	0.573	0.349	1.910	20.60
fly ash	0.4	96.1	20.00	9.97	5.91	0.695	0.421	2.230	19.40
gypsum	0.7	77.3	0.61	0.11	25.30	0.028	0.006	0.045	0.24
fly ash	0.7	76.8	19.60	8.33	2.47	0.648	0.507	1.720	6.07
Lower Block Coal Member	8.1	2.5	0.39	0.27	0.01	0.006	0.004	0.015	0.46
Lower Block Coal Member	3.8	1.7	0.41	0.28	0.01	0.006	0.003	0.016	0.04
Lower Block Coal Member	5.9	3.1	0.58	0.37	0.02	0.007	0.005	0.031	0.61
Lower Block Coal Member	3.1	2.8	0.70	0.44	0.01	0.008	0.004	0.037	0.14
Lower Block Coal Member	5.4	7.1	1.89	0.98	0.02	0.022	0.010	0.100	0.48
Lower Block Coal Member	2.8	6.2	1.59	0.89	0.02	0.016	0.009	0.087	0.19
Lower Block Coal Member	4.6	11.0	0.92	0.69	0.02	0.011	0.006	0.022	4.26
Lower Block Coal Member	2.9	5.7	1.12	0.91	0.03	0.013	0.006	0.028	0.49
unnamed coal	6.6	2.7	0.33	0.24	0.02	0.007	0.010	0.012	0.85
unnamed coal	2.8	2.3	0.30	0.23	0.03	0.007	0.011	0.013	0.61
unnamed coal	7.4	3.6	0.36	0.28	0.02	0.008	0.012	0.016	1.37
unnamed coal	3.2	2.7	0.42	0.34	0.02	0.013	0.012	0.022	0.61
unnamed coal	6.5	5.6	0.55	0.43	0.02	0.020	0.014	0.045	1.68
unnamed coal	2.7	4.1	0.61	0.45	0.03	0.024	0.015	0.058	0.59
Lower Block Coal Member	8.3	2.4	0.44	0.31	0.02	0.007	0.003	0.018	0.35

ısis) for 729 National Coal Quality Inventory samples.

Coal	Moisture % (remnant)	Ash % (525oC)	Si %	Al %	Ca %	Mg %	Na %	K %	Fe %
Hymera Coal Member	11.3	13.0	2.80	1.96	0.03	0.078	0.025	0.324	1.18
Hymera Coal Member	5.0	11.6	2.36	1.68	0.02	0.067	0.021	0.270	0.95
Hymera Coal Member	10.4	8.7	1.76	1.20	0.04	0.045	0.018	0.152	0.82
Hymera Coal Member	8.2	8.2	1.64	1.13	0.03	0.040	0.015	0.143	0.61
Hymera Coal Member	12.3	9.7	2.24	1.20	0.03	0.059	0.014	0.194	0.92
Hymera Coal Member	6.7	9.2	2.14	1.17	0.03	0.050	0.014	0.183	0.83
Hymera Coal Member	10.1	13.8	2.93	2.07	0.10	0.083	0.027	0.298	0.97
Hymera Coal Member	7.0	11.1	2.37	1.67	0.07	0.067	0.021	0.249	0.98
Springfield Coal Member	8.3	12.4	2.03	1.16	0.21	0.061	0.046	0.268	2.39
Springfield Coal Member	5.0	9.4	1.89	1.09	0.08	0.062	0.041	0.241	1.36
Springfield Coal Member	7.4	5.6	0.96	0.68	0.19	0.026	0.030	0.111	0.77
Springfield Coal Member	5.5	5.0	0.95	0.66	0.05	0.026	0.030	0.116	0.63
Springfield Coal Member	6.4	15.9	2.13	1.09	0.21	0.044	0.041	0.211	4.83
Springfield Coal Member	4.7	6.7	1.19	0.75	0.13	0.025	0.028	0.105	1.14
Springfield Coal Member	6.9	11.4	2.31	1.09	0.31	0.069	0.058	0.284	1.29
Springfield Coal Member	3.7	9.8	2.32	1.08	0.12	0.065	0.053	0.284	1.02
Hymera Coal Member	7.2	11.5	2.49	1.77	0.07	0.067	0.021	0.258	1.02
Springfield Coal Member	6.3	11.4	2.41	1.12	0.35	0.069	0.058	0.293	1.48
Springfield Coal Member	2.6	6.6	1.18	0.67	0.16	0.026	0.053	0.109	1.13
Springfield Coal Member	2.9	5.6	0.98	0.54	0.12	0.025	0.062	0.096	1.05
Springfield Coal Member	2.7	3.2	0.57	0.38	0.08	0.009	0.053	0.040	0.45
Springfield Coal Member	2.8	2.9	0.51	0.34	0.04	0.010	0.054	0.036	0.49
Springfield Coal Member	3.0	4.6	1.03	0.62	0.03	0.025	0.054	0.114	0.40
Springfield Coal Member	2.9	4.7	1.06	0.64	0.03	0.027	0.053	0.126	0.35
Springfield Coal Member	3.0	5.9	1.42	0.75	0.04	0.043	0.060	0.152	0.37
Springfield Coal Member	3.0	6.3	1.55	0.80	0.03	0.049	0.066	0.165	0.39
Danville Coal Member	3.7	17.8	4.83	1.83	0.37	0.164	0.176	0.510	0.57
Danville Coal Member	3.1	14.6	3.78	1.74	0.32	0.106	0.099	0.410	0.28

ısis) for 729 National Coal Quality Inventory samples.

Coal	Moisture % (remnant)	Ash % (525oC)	Si %	Al %	Ca %	Mg %	Na %	K %	Fe %
Danville Coal Member	14.0	12.1	3.33	1.47	0.14	0.114	0.099	0.352	0.31
Danville Coal Member		9.0	1.93	0.94	0.56	0.071	0.068	0.186	0.43
Upper Block Coal Member	2.2	33.3	9.96	4.07	0.11	0.138	0.059	0.567	0.56
Upper Block Coal Member	2.7	10.1	2.93	1.25	0.04	0.033	0.017	0.127	0.46
Upper Block Coal Member	2.7	4.3	0.94	0.67	0.03	0.014	0.009	0.038	0.36
Upper Block Coal Member	3.1	5.5	1.16	0.78	0.03	0.021	0.010	0.085	0.63
Lower Block Coal Member	3.0	2.5	0.57	0.31	0.05	0.013	0.016	0.039	0.10
Lower Block Coal Member	3.5	4.7	1.17	0.58	0.02	0.016	0.021	0.097	0.33
Lower Block Coal Member	3.0	6.7	1.88	0.96	0.03	0.027	0.027	0.135	0.07
Lower Block Coal Member	2.4	10.0	1.36	0.85	0.03	0.016	0.035	0.072	3.10
Buffaloville Coal Member	3.2	13.7	2.43	1.18	0.06	0.060	0.026	0.196	3.56
Buffaloville Coal Member	2.9	11.4	2.79	1.39	0.04	0.042	0.013	0.168	0.99
Buffaloville Coal Member	2.5	26.8	6.66	4.35	0.11	0.066	0.027	0.258	1.39
Buffaloville Coal Member	2.9	10.8	2.11	1.15	0.04	0.021	0.010	0.091	2.67
Springfield Coal Member	2.5	8.5	2.10	0.94	0.15	0.056	0.053	0.223	0.79
Springfield Coal Member	2.7	8.6	2.24	0.99	0.08	0.067	0.051	0.250	0.80
Springfield Coal Member	2.6	7.9	2.04	1.03	0.17	0.048	0.051	0.172	0.57
Springfield Coal Member	2.6	6.5	1.63	0.88	0.11	0.039	0.047	0.129	0.49
Springfield Coal Member	2.5	8.7	1.17	0.68	0.71	0.038	0.047	0.122	1.81
Springfield Coal Member	3.1	5.7	1.21	0.72	0.13	0.035	0.045	0.126	0.75
Springfield Coal Member	3.1	8.6	1.98	1.04	0.10	0.072	0.051	0.222	1.10
Springfield Coal Member	2.6	8.2	1.90	1.00	0.08	0.064	0.050	0.219	0.94
Seeleyville Coal Member	3.0	4.1	0.98	0.61	0.01	0.017	0.025	0.078	0.37
Seeleyville Coal Member	2.8	4.1	0.98	0.60	0.01	0.017	0.023	0.077	0.34
Seeleyville Coal Member	3.5	6.3	1.27	0.89	0.03	0.019	0.025	0.066	0.99
Seeleyville Coal Member	3.1	5.7	1.11	0.84	0.03	0.014	0.024	0.050	0.86
Seeleyville Coal Member	2.9	18.3	3.66	2.03	0.01	0.108	0.064	0.430	3.56
Seeleyville Coal Member	2.8	12.4	2.88	1.38	0.02	0.091	0.070	0.327	1.66

ısis) for 729 National Coal Quality Inventory samples.

Coal	Moisture % (remnant)	Ash % (525oC)	Si %	Al %	Ca %	Mg %	Na %	K %	Fe %
Seeleyville Coal Member	2.4	56.7	15.70	6.99	0.04	0.356	0.226	1.840	4.28
Seeleyville Coal Member	2.7	22.8	4.97	2.91	0.05	0.114	0.066	0.409	3.81
Seeleyville Coal Member	3.5	12.0	1.57	0.78	0.42	0.030	0.025	0.107	4.01
Seeleyville Coal Member	2.4	7.8	1.17	0.73	0.06	0.010	0.020	0.034	2.53
Seeleyville Coal Member	2.8	11.3	1.37	0.78	0.84	0.029	0.035	0.114	3.13
Seeleyville Coal Member	2.4	7.0	1.19	0.66	0.08	0.022	0.028	0.094	1.93
Seeleyville Coal Member	2.7	10.0	1.76	0.85	0.38	0.040	0.034	0.166	2.33
Seeleyville Coal Member	2.4	7.1	1.60	0.77	0.07	0.036	0.034	0.158	1.08
Seeleyville Coal Member	2.8	10.5	1.70	0.88	0.29	0.031	0.027	0.130	3.02
Seeleyville Coal Member	2.6	7.7	1.40	0.73	0.04	0.025	0.025	0.104	2.03
Upper Millersburg Coal Member	3.8	18.2	2.33	1.07	0.19	0.070	0.061	0.252	7.05
Upper Millersburg Coal Member	2.7	11.3	2.51	1.20	0.06	0.079	0.070	0.281	2.17
Upper Millersburg Coal Member	3.4	6.4	1.16	0.66	0.20	0.033	0.029	0.114	1.28
Upper Millersburg Coal Member	3.1	6.0	1.13	0.62	0.04	0.037	0.030	0.117	1.33
Upper Millersburg Coal Member	3.3	12.5	2.82	1.38	0.16	0.085	0.069	0.300	2.01
Upper Millersburg Coal Member	3.1	9.6	2.11	1.24	0.03	0.066	0.040	0.232	1.27
Upper Millersburg Coal Member	3.6	11.4	2.34	1.16	0.16	0.042	0.033	0.159	2.50
Upper Millersburg Coal Member	3.3	10.5	2.13	1.07	0.02	0.036	0.036	0.144	2.44
Upper Millersburg Coal Member	2.3	22.1	4.78	1.31	0.88	0.036	0.036	0.129	5.27
Upper Millersburg Coal Member	2.9	8.1	1.52	0.70	0.05	0.024	0.027	0.105	2.15
Upper Millersburg Coal Member	3.3	7.8	1.44	0.92	0.31	0.026	0.035	0.084	1.36
Upper Millersburg Coal Member	3.1	6.8	1.30	0.80	0.08	0.023	0.034	0.083	1.31
Upper Millersburg Coal Member	3.3	9.8	2.14	0.98	0.31	0.032	0.034	0.152	1.55
Upper Millersburg Coal Member	2.7	8.5	1.81	0.84	0.14	0.026	0.030	0.130	1.54
Pirtle Coal Member	3.2	10.6	1.50	0.82	0.33	0.044	0.019	0.172	3.19
Pirtle coal	2.4	9.5	1.29	0.71	0.17	0.035	0.016	0.145	3.21
Big Run coal	3.1	7.87	1.66	0.78	0.18	0.035	0.059	0.137	1.30
Briar Hill coal	0.8	13.59	2.77	1.41	0.17	0.079	0.131	0.316	2.48

ısis) for 729 National Coal Quality Inventory samples.

Coal	Moisture % (remnant)	Ash % (525oC)	Si %	Al %	Ca %	Mg %	Na %	K %	Fe %
Baker coal	0.6	72.47	18.19	7.80	1.65	0.769	1.277	1.741	6.89
Springfield coal	0.8	10.12	1.80	0.69	0.14	0.030	0.050	0.087	2.71
Springfield coal	0.9	14.95	1.17	0.59	1.73	0.285	0.473	0.102	4.16
Springfield coal	0.9	21.12	2.46	0.90	0.34	0.067	0.112	0.203	7.95
Springfield coal	1.0	73.26	20.38	7.38	2.04	1.102	1.831	2.512	4.04
uncorrelated coal	1.0	13.35	2.62	1.35	0.15	0.075	0.124	0.292	2.64
Baker coal	0.9	22.56	1.63	0.85	2.37	0.059	0.098	0.115	7.97
Baker coal	1.0	7.66	1.68	0.87	0.11	0.030	0.050	0.109	1.14
Baker coal	1.3	10.78	2.32	1.01	0.31	0.049	0.081	0.181	1.87
Springfield coal	1.0	9.93	2.54	1.02	0.16	0.052	0.086	0.203	0.99
Springfield coal	1.2	12.47	1.57	0.72	0.35	0.038	0.063	0.129	4.31
Springfield coal	1.0	14.53	2.36	0.93	0.38	0.065	0.108	0.185	4.08
Springfield coal	0.9	73.64	18.25	7.26	1.80	0.771	1.281	2.295	6.56
Davis coal	1.3	12.27	2.51	1.10	0.11	0.065	0.108	0.199	2.57
Davis coal	1.1	77.74	18.36	7.29	1.71	0.821	1.365	2.342	8.07
Survant coal	1.2	77.42	18.37	6.31	4.72	1.061	1.763	2.312	5.18
Survant coal	1.3	66.81	19.23	6.06	0.68	0.895	1.487	2.139	4.16
Springfield coal	1.7	10.37	2.85	1.10	0.11	0.054	0.090	0.230	0.96
Springfield coal	1.7	14.82	1.41	0.68	0.49	0.026	0.044	0.114	6.04
Springfield coal	1.7	13.53	2.53	1.03	0.40	0.062	0.103	0.209	3.41
Springfield coal	0.9	69.48	17.18	6.30	2.63	0.801	1.331	2.201	4.49
Colchester coal	1.3	15.53	3.04	1.25	0.25	0.144	0.239	0.357	3.02
Colchester coal	1.2	79.70	21.69	8.57	0.33	0.946	1.572	2.748	6.51
Herrin coal	1.7	9.49	1.46	0.88	0.14	0.024	0.040	0.096	2.59
Herrin coal	2.0	5.72	1.16	0.66	0.07	0.029	0.048	0.118	0.91
Herrin coal	2.0	14.70	3.82	1.93	0.09	0.044	0.072	0.242	1.01
Herrin coal	1.6	12.36	2.42	1.12	0.13	0.071	0.118	0.243	2.59

ısis) for 729 National Coal Quality Inventory samples.

Coal	Moisture % (remnant)	Ash % (525oC)	Si %	Al %	Ca %	Mg %	Na %	K %	Fe %
prepared coal	0.3	5.5	1.25	0.72	0.07	0.025	0.018	0.064	0.54
prepared coal	0.1	35.6	2.36	0.58	0.23	0.066	0.016	0.119	16.80
prepared coal	0.4	5.8	1.28	0.81	0.06	0.027	0.021	0.068	0.50
prepared coal	0.4	3.3	0.73	0.47	0.04	0.016	0.011	0.047	0.29
prepared coal	0.5	6.7	1.47	0.93	0.08	0.032	0.021	0.084	0.64
prepared coal	1.6	4.5	1.03	0.60	0.06	0.024	0.013	0.049	0.33
prepared coal	0.3	3.3	0.76	0.45	0.05	0.018	0.012	0.030	0.26
prepared coal	1.0	5.3	1.15	0.69	0.08	0.028	0.015	0.053	0.38
Dean (Fireclay) coal	0.4	5.6	0.94	0.56	0.04	0.020	0.014	0.070	0.94
Dean (Fireclay) coal	0.3	7.9	1.49	0.88	0.03	0.041	0.013	0.211	1.39
Dean (Fireclay) coal	0.4	1.8	0.20	0.21	0.03	0.009	0.008	0.009	0.48
Dean (Fireclay) coal	0.6	1.5	0.25	0.26	0.04	0.014	0.024	0.010	0.09
Dean (Fireclay) coal	0.5	2.8	0.65	0.45	0.04	0.013	0.012	0.013	0.07
Dean (Fireclay) coal	0.4	7.3	1.98	1.06	0.04	0.020	0.015	0.061	0.12
Dean (Fireclay) coal	0.5	5.3	1.24	0.83	0.02	0.015	0.007	0.053	0.13
prepared coal	0.1	35.1	2.33	0.58	0.19	0.051	0.013	0.117	16.86
Dean (Fireclay) coal	0.4	4.4	0.81	0.50	0.04	0.018	0.013	0.059	0.76
fly ash	0.3	99.7	23.23	12.87	1.28	0.426	0.310	1.246	12.06
fly ash	0.4	89.1	22.05	12.82	1.21	0.418	0.310	1.188	8.78
fly ash	0.4	87.9	21.63	12.60	1.19	0.418	0.326	1.172	8.17
fly ash	0.4	83.4	20.91	11.34	1.07	0.372	0.321	1.112	6.94
fly ash	0.4	87.2	20.89	11.21	1.06	0.373	0.310	1.162	6.16
fly ash	0.4	88.5	21.66	12.50	1.14	0.405	0.308	1.180	8.35
fly ash	0.4	88.1	21.19	11.93	1.13	0.398	0.300	1.101	8.13
fly ash	0.5	83.2	18.81	10.48	1.01	0.341	0.271	1.040	8.08

ısis) for 729 National Coal Quality Inventory samples.

Coal	Moisture % (remnant)	Ash % (525oC)	Si %	Al %	Ca %	Mg %	Na %	K %	Fe %
fly ash	0.3	86.1	20.51	11.66	1.11	0.378	0.281	1.076	8.19
fly ash	0.7	89.3	21.14	13.89	1.40	0.516	0.443	1.413	5.93
fly ash	0.7	88.2	20.64	13.76	1.45	0.504	0.438	1.396	6.10
fly ash	0.7	89.3	20.39	13.56	1.47	0.538	0.450	1.413	6.62
fly ash	0.7	88.4	18.74	12.58	1.39	0.490	0.452	1.325	5.50
fly ash	1.0	86.6	18.44	13.10	1.42	0.573	0.391	1.587	7.75
fly ash	1.1	85.4	19.50	13.28	1.40	0.566	0.424	1.423	6.75
bottom ash	0.3	94.8	23.24	12.44	1.02	0.382	0.267	1.185	11.80
fly ash	0.5	83.3	17.66	10.18	1.01	0.331	0.290	0.971	6.06
fly ash	0.8	89.2	21.41	14.34	1.46	0.591	0.443	1.412	7.11
Lower Kittanning coal	2.1	24.5	5.06	4.43	0.04	0.078	0.026	0.311	2.50
Lower Kittanning coal	2.2	24.5	5.22	4.59	0.04	0.081	0.026	0.319	2.59
Lower Kittanning coal	2.9	6.8	1.26	1.22	0.06	0.037	0.014	0.115	0.74
Lower Kittanning coal	0.3	13.8	2.55	1.91	0.19	0.038	0.016	0.139	2.67
Lower Kittanning coal	0.3	23.2	5.44	3.44	0.15	0.067	0.029	0.320	2.63
Lower Kittanning coal	0.2	55.8	14.30	8.51	0.16	0.178	0.075	0.922	4.84
Lower Kittanning coal	0.5	76.2	20.70	12.50	0.19	0.202	0.116	1.140	3.44
Lower Kittanning coal	0.3	25.1	5.90	3.77	0.12	0.086	0.031	0.383	2.65
Sewickley coal	0.2	16.5	3.53	1.50	0.07	0.085	0.028	0.307	4.07
Redstone coal	0.2	6.6	1.67	0.99	0.05	0.028	0.053	0.119	0.27
Morantown coal	0.1	27.8	6.78	3.69	0.31	0.176	0.050	0.692	2.53
Lower Freeport coal	0.2	12.8	2.66	2.06	0.11	0.061	0.034	0.247	1.40
Sewickley coal	0.0	24.9	6.74	2.57	0.23	0.148	0.051	0.602	3.03
Redstone coal	0.3	14.9	4.42	1.99	0.06	0.070	0.056	0.354	0.44
Morantown coal	0.2	39.0	10.50	5.45	0.24	0.280	0.072	1.160	2.18
Lower Freeport coal	0.1	8.1	1.54	1.27	0.09	0.033	0.034	0.102	1.18
Upper Kittanning coal	0.1	17.1	3.46	2.24	0.60	0.078	0.027	0.285	2.00
Lower Kittanning coal	0.1	18.9	4.27	2.70	0.14	0.065	0.027	0.297	2.43

ısis) for 729 National Coal Quality Inventory samples.

Coal	Moisture % (remnant)	Ash % (525oC)	Si %	Al %	Ca %	Mg %	Na %	K %	Fe %
	0.2	71.6	18.00	8.75	1.81	0.425	0.115	1.760	6.06
	0.1	42.8	10.40	5.16	0.48	0.170	0.081	0.846	5.33
Pittsburgh coal	0.2	11.8	2.69	1.69	0.20	0.061	0.021	0.228	1.18
Blue Lick coal	0.1	19.2	3.99	3.81	0.32	0.108	0.048	0.167	0.71
	0.2	4.0	1.02	0.54	0.01	0.016	0.049	0.090	0.40
Lower Kittanning coal	0.8	14.1	3.04	1.75	0.11	0.062	0.014	0.267	1.91
Lower Kittanning coal	0.7	19.8	4.55	2.53	0.10	0.084	0.020	0.352	2.42
Lower Kittanning coal	1.1	57.3	13.80	7.58	0.22	0.453	0.071	1.680	4.41
Lower Kittanning coal	0.8	31.0	7.38	4.10	0.14	0.273	0.039	0.885	2.62
Lower Kittanning coal	1.4	9.3	2.08	1.37	0.07	0.044	0.012	0.155	0.91
Pittsburgh coal	1.2	9.2	2.00	1.09	0.13	0.039	0.033	0.159	1.22
Pittsburgh coal	1.1	30.4	8.50	3.73	0.35	0.156	0.117	0.694	1.29
Pittsburgh coal	1.0	31.6	8.97	3.80	0.27	0.158	0.127	0.735	1.33
Pittsburgh coal	1.1	9.1	2.18	1.11	0.12	0.040	0.034	0.150	0.91
Pittsburgh coal	0.8	79.6	23.30	9.44	0.60	0.375	0.298	1.740	3.06
Jellico coal	1.2	9.4	2.31	1.54	0.17	0.056	0.023	0.162	0.35
Mingo coal	1.2	4.0	0.80	0.60	0.06	0.023	0.020	0.089	0.69
Nemo coal	1.7	7.9	1.87	1.36	0.13	0.056	0.014	0.185	0.34
Pewee coal	1.1	7.6	1.86	1.13	0.29	0.075	0.014	0.196	0.38
Richland coal	0.6	5.5	1.38	0.85	0.05	0.051	0.008	0.166	0.44
Rex coal	0.8	11.4	3.03	1.86	0.22	0.080	0.024	0.283	0.32
Walnut Mountain	1.1	9.3	2.42	1.50	0.18	0.064	0.019	0.226	0.26
	1.2	1.6	0.31	0.24	0.04	0.011	0.005	0.017	0.09
Mingo coal	1.7	6.6	1.08	0.74	0.08	0.042	0.011	0.157	1.62
Mingo coal	1.9	3.5	0.85	0.60	0.07	0.018	0.005	0.059	0.14
Sewickley coal	1.2	16.3	3.31	1.88	0.16	0.098	0.044	0.325	2.46
No. 6 Block coal	1.7	10.4	2.81	1.59	0.03	0.025	0.012	0.095	0.14
No. 6 Block coal	2.1	11.8	2.59	2.20	0.04	0.046	0.016	0.196	0.26

ısis) for 729 National Coal Quality Inventory samples.

Coal	Moisture % (remnant)	Ash % (525oC)	Si %	Al %	Ca %	Mg %	Na %	K %	Fe %
No. 5 Block coal	1.8	6.5	1.74	0.96	0.04	0.016	0.013	0.054	0.11
Little No. 5 Block coal	1.8	12.0	2.77	1.97	0.04	0.051	0.021	0.259	0.30
Stockton coal	1.7	25.6	5.33	3.35	0.26	0.130	0.048	0.510	0.77
Stockton coal	2.2	20.4	5.03	3.35	0.09	0.113	0.035	0.525	0.57
Stockton coal	1.8	23.5	4.93	3.46	0.24	0.122	0.051	0.585	0.51
Stockton coal	0.9	13.8	2.48	1.01	0.08	0.047	0.013	0.160	3.32
Coalburg coal	1.5	28.6	7.02	3.95	0.12	0.147	0.047	0.617	1.44
Coalburg coal	1.6	21.9	5.62	3.37	0.07	0.108	0.044	0.491	1.13
Coalburg coal	3.1	12.2	2.66	1.75	0.08	0.058	0.019	0.203	0.23
Coalburg coal	1.3	18.5	3.72	2.47	0.05	0.071	0.025	0.323	2.45
Coalburg coal	1.7	30.2	7.68	3.92	0.06	0.171	0.043	0.827	0.82
Winifrede coal	1.9	7.1	1.76	0.84	0.11	0.038	0.017	0.013	0.13
Coalburg coal	2.5	32.8	7.24	4.74	0.04	0.156	0.058	0.762	0.57
Stockton coal	1.7	6.1	1.28	1.09	0.06	0.028	0.016	0.081	0.12
Stockton coal	1.6	10.3	2.83	1.79	0.04	0.021	0.021	0.078	0.15
Stockton coal	1.3	9.0	2.38	1.76	0.03	0.028	0.021	0.127	0.12
Williamson coal	1.4	11.3	3.08	1.55	0.04	0.027	0.026	0.131	0.76
No. 5 Block coal	2.9	13.4	3.65	2.15	0.06	0.042	0.016	0.178	0.56
Coalburg coal	3.1	7.8	1.75	1.24	0.07	0.043	0.028	0.194	0.19
Coalburg coal	1.3	27.9	7.36	3.81	0.24	0.151	0.039	0.649	1.44
Coalburg coal	1.2	38.7	10.90	5.22	0.13	0.280	0.075	1.250	1.27
Coalburg coal	1.4	8.0	2.19	1.25	0.05	0.024	0.021	0.066	0.38
Winifrede coal	1.1	12.0	3.10	1.94	0.06	0.037	0.020	0.139	0.19
Winifrede coal	1.8	4.8	1.00	0.72	0.07	0.032	0.018	0.076	0.31
Coalburg coal	1.7	6.1	1.41	1.07	0.05	0.030	0.015	0.096	0.26
Coalburg coal	2.7	20.5	5.31	3.42	0.04	0.115	0.030	0.545	0.55
No. 6 Block coal	2.6	25.7	5.65	4.43	0.07	0.130	0.046	0.747	0.81
No. 6 Block coal	2.2	13.5	3.15	2.24	0.06	0.055	0.017	0.202	0.59

ısis) for 729 National Coal Quality Inventory samples.

Coal	Moisture % (remnant)	Ash % (525oC)	Si %	Al %	Ca %	Mg %	Na %	K %	Fe %
Redstone coal	1.5	9.3	1.62	0.99	0.46	0.060	0.016	0.120	1.40
Bakerstown coal	0.6	25.8	7.25	3.70	0.16	0.150	0.040	0.464	0.67
Upper Freeport coal	0.9	15.8	3.73	2.17	0.25	0.094	0.029	0.286	1.40
No. 5 Block coal	1.8	22.9	7.49	2.92	0.06	0.027	0.011	0.050	0.23
No. 5 Block coal	2.0	22.8	6.11	3.97	0.04	0.097	0.033	0.583	0.31
Stockton coal	2.1	13.2	3.93	1.87	0.06	0.039	0.017	0.148	0.28
Winifrede coal	3.0	8.0	2.17	1.12	0.09	0.095	0.023	0.111	0.20
Cedar Grove coal	1.2	9.2	2.29	1.17	0.08	0.043	0.023	0.139	1.03
Powellton coal	1.5	20.0	5.06	3.15	0.03	0.189	0.063	0.803	0.97
Coalburg coal	1.3	18.5	5.64	2.63	0.03	0.052	0.037	0.273	0.27
Winifrede coal	1.2	14.1	4.33	1.98	0.07	0.045	0.019	0.180	0.15
Waynesburg coal	1.4	22.1	6.01	3.30	0.09	0.122	0.045	0.504	0.95
Waynesburg coal	1.3	16.8	4.13	2.06	0.05	0.071	0.031	0.353	2.08
Sewickley coal	2.3	11.1	3.02	1.57	0.07	0.048	0.033	0.203	0.52
Sewickley coal	1.2	13.3	3.07	1.60	0.11	0.064	0.050	0.219	1.90
Sewickley coal	1.0	11.9	2.81	1.54	0.07	0.055	0.044	0.208	1.71
Redstone coal	1.7	5.8	0.74	0.61	0.51	0.036	0.009	0.068	0.89
Bakerstown coal	0.6	36.2	9.84	5.63	0.17	0.294	0.061	0.941	0.84
Bakerstown coal	0.7	5.9	1.43	0.99	0.11	0.040	0.023	0.078	0.19
Upper Freeport coal	0.5	15.9	3.52	2.25	0.13	0.092	0.027	0.342	2.09
Upper Freeport coal	0.8	16.0	4.06	2.35	0.28	0.108	0.033	0.351	0.79
Upper Freeport coal	0.9	14.0	2.39	1.78	0.23	0.046	0.026	0.149	3.15
Cedar Grove coal	1.2	9.2	2.31	1.15	0.07	0.044	0.023	0.146	1.01
Stockton coal	1.3	13.4	3.84	2.09	0.07	0.060	0.023	0.258	0.19
No. 6 Block coal	1.8	3.3	0.78	0.65	0.05	0.012	0.009	0.016	0.07
No. 5 Block coal	2.0	9.7	2.75	1.49	0.05	0.068	0.016	0.289	0.24
Upper No. 5 Block coal	1.7	16.4	4.80	2.49	0.07	0.086	0.022	0.387	0.38
Stockton coal	1.7	25.5	6.62	4.26	0.05	0.177	0.044	1.024	1.55

ısis) for 729 National Coal Quality Inventory samples.

Coal	Moisture % (remnant)	Ash % (525oC)	Si %	Al %	Ca %	Mg %	Na %	K %	Fe %
Stockton coal	1.9	14.7	3.73	2.43	0.05	0.089	0.025	0.480	0.51
Stockton coal	1.9	5.7	1.66	0.77	0.05	0.016	0.011	0.054	0.11
Stockton coal	1.3	4.0	1.13	0.64	0.03	0.008	0.013	0.011	0.04
Coalburg coal	1.8	24.5	6.17	3.45	0.05	0.159	0.030	0.845	0.86
Coalburg coal	1.5	18.6	4.71	3.55	0.08	0.100	0.048	0.514	0.30
Stockton coal	1.6	16.4	4.56	2.72	0.07	0.072	0.043	0.423	0.24
Coalburg coal	1.6	23.2	6.62	3.65	0.05	0.122	0.046	0.591	0.42
Coalburg coal	1.3	18.5	6.25	2.00	0.06	0.068	0.060	0.310	0.31
Coalburg coal	1.8	7.4	1.51	1.32	0.06	0.037	0.116	0.149	0.66
Coalburg coal	1.8	7.1	1.58	1.38	0.06	0.035	0.098	0.160	0.20
Coalburg coal	1.8	9.5	2.50	1.39	0.05	0.041	0.031	0.202	0.47
Coalburg coal	1.7	7.0	1.59	1.25	0.06	0.020	0.082	0.053	0.32
Coalburg coal	2.9	10.3	2.41	1.98	0.06	0.045	0.020	0.269	0.39
Coalburg coal	1.6	3.8	0.82	0.63	0.08	0.021	0.038	0.020	0.38
Winifrede coal	1.2	3.2	0.81	0.58	0.05	0.021	0.012	0.055	0.06
No. 5 Block coal	2.1	6.5	1.75	1.07	0.05	0.013	0.006	0.033	0.08
Coalburg coal	2.3	24.6	6.72	3.77	0.06	0.175	0.034	0.918	0.93
Stockton coal	1.2	11.0	2.77	1.73	0.07	0.044	0.017	0.164	0.25
Coalburg coal	1.0	16.3	4.15	2.35	0.06	0.052	0.024	0.217	0.22
No. 5 Block coal	1.6	10.5	2.44	1.42	0.05	0.036	0.014	0.148	0.14
No. 6 Block coal	1.0	37.6	12.30	4.34	0.05	0.132	0.045	0.812	0.63
Stockton coal	1.3	16.0	4.11	2.33	0.07	0.072	0.023	0.266	0.45
Stockton coal	1.1	11.4	2.78	1.59	0.05	0.035	0.016	0.123	0.11
No. 5 Block coal	1.6	11.8	2.77	1.67	0.08	0.058	0.022	0.225	0.33
Coalburg coal	1.1	32.9	9.75	4.30	0.05	0.190	0.049	0.847	0.78
Coalburg coal	1.7	16.9	4.57	2.67	0.07	0.102	0.036	0.379	0.38
Coalburg coal	1.1	22.6	5.38	3.35	0.06	0.117	0.037	0.525	0.68
Coalburg coal	0.6	14.0	3.36	1.79	0.04	0.068	0.046	0.186	0.33

ısis) for 729 National Coal Quality Inventory samples.

Coal	Moisture % (remnant)	Ash % (525oC)	Si %	Al %	Ca %	Mg %	Na %	K %	Fe %
Coalburg coal	0.8	23.9	5.76	3.15	0.07	0.131	0.034	0.575	0.49
Coalburg coal	0.7	11.1	3.10	1.36	0.05	0.049	0.017	0.175	0.21
Coalburg coal	0.9	28.8	8.13	4.37	0.07	0.172	0.062	0.813	0.52
Coalburg coal	2.6	15.6	4.42	2.14	0.05	0.083	0.036	0.376	0.31
Stockton coal	1.0	4.8	1.05	0.74	0.05	0.020	0.012	0.056	0.07
Stockton coal	0.8	23.1	5.86	3.58	0.05	0.181	0.057	0.901	0.84
Stockton coal	0.9	18.0	4.28	2.75	0.04	0.109	0.043	0.553	0.35
Upper No. 5 Block coal	2.5	8.0	2.63	0.68	0.07	0.042	0.014	0.030	0.07
Stockton coal	1.4	12.9	3.20	2.16	0.05	0.093	0.029	0.428	0.29
No. 5 Block coal	1.1	6.8	1.62	0.99	0.04	0.030	0.011	0.113	0.11
Stockton coal	0.9	6.9	1.66	1.10	0.05	0.036	0.016	0.160	0.12
Coalburg coal	0.9	31.8	8.13	4.36	0.07	0.230	0.259	1.270	0.60
Coalburg coal	1.1	43.2	11.80	6.10	0.07	0.234	0.205	1.360	1.03
Coalburg coal	0.8	10.3	2.55	1.61	0.04	0.053	0.041	0.257	0.22
Coalburg coal	1.1	31.5	8.56	4.47	0.07	0.190	0.089	1.180	0.60
Coalburg coal	0.6	26.1	6.61	4.50	0.21	0.157	0.093	0.693	0.68
Coalburg coal	0.7	14.2	3.29	1.80	0.35	0.073	0.038	0.236	0.95
Stockton coal	0.6	21.9	6.22	2.75	0.42	0.042	0.042	0.145	0.83
Middle Kittanning coal	0.4	23.1	3.97	3.33	0.86	0.134	0.050	0.460	2.47
Coalburg coal	0.8	15.5	4.47	2.19	0.04	0.084	0.032	0.412	0.31
Stockton coal	0.6	17.9	4.64	2.99	0.04	0.119	0.037	0.624	0.38
Cedar Grove coal	1.6	9.9	2.38	1.28	0.09	0.056	0.014	0.205	0.83
Dean (Fireclay) coal	2.2	11.0	2.58	1.86	0.13	0.082	0.024	0.242	0.58
Cedar Grove coal	1.6	6.5	1.25	0.74	0.19	0.040	0.029	0.046	1.02
Winifrede coal	1.8	5.4	1.11	0.88	0.08	0.041	0.014	0.141	0.29
Winifrede coal	1.8	3.5	0.73	0.53	0.10	0.028	0.012	0.047	0.16
Sewell coal	1.1	11.3	2.12	1.69	0.03	0.074	0.032	0.299	1.78
Coalburg coal	2.5	8.4	1.93	1.63	0.06	0.036	0.017	0.122	0.17

ısis) for 729 National Coal Quality Inventory samples.

Coal	Moisture % (remnant)	Ash % (525oC)	Si %	Al %	Ca %	Mg %	Na %	K %	Fe %
Sewell coal	1.1	25.5	6.21	3.89	0.15	0.249	0.087	0.923	1.16
No. 2 Gas coal	1.2	11.1	2.43	1.70	0.24	0.110	0.036	0.394	0.46
Upper Kittanning coal	1.4	18.4	3.40	2.17	0.09	0.068	0.058	0.362	3.82
Coalburg coal	2.1	13.5	3.74	2.20	0.06	0.040	0.015	0.126	0.21
Eagle coal	2.1	16.9	4.10	2.70	0.26	0.138	0.066	0.467	0.40
Welch coal	1.0	29.2	6.96	5.35	0.19	0.101	0.053	0.417	0.38
Peerless coal	1.7	10.7	2.33	1.33	0.11	0.057	0.029	0.258	1.59
No. 2 Gas coal	1.2	14.4	2.93	2.03	0.19	0.134	0.051	0.552	1.39
Middle Kittanning coal	1.4	25.1	5.16	4.80	0.75	0.112	0.056	0.406	0.50
Lower Kittanning coal	1.3	16.9	2.28	2.50	0.77	0.058	0.022	0.152	2.66
Lower Kittanning coal	1.1	24.4	4.93	3.82	0.39	0.057	0.031	0.275	2.73
Redstone coal	1.8	10.7	2.00	1.31	0.16	0.038	0.018	0.140	1.95
Middle Kittanning coal	2.0	23.8	5.84	3.92	0.05	0.155	0.032	0.802	0.54
Sewickley coal	1.4	15.8	3.40	2.07	0.11	0.062	0.080	0.273	2.00
Redstone coal	1.2	13.0	2.83	1.61	0.15	0.050	0.029	0.214	1.99
Pittsburgh coal	1.0	10.5	1.84	1.12	0.48	0.072	0.071	0.111	1.59
Pittsburgh coal	1.5	8.2	1.09	0.68	0.55	0.065	0.056	0.070	1.56
No. 5 Block coal	1.4	16.2	3.06	2.49	1.05	0.079	0.020	0.239	0.75
No. 5 Block coal	1.5	24.9	5.45	4.80	0.08	0.086	0.036	0.436	1.20
Stockton coal	2.0	23.5	6.33	3.59	0.07	0.130	0.039	0.620	0.38
Little Chilton coal	1.5	9.1	2.19	1.62	0.05	0.052	0.020	0.178	0.28
No. 2 Gas coal	1.3	9.6	2.60	1.43	0.04	0.039	0.024	0.170	0.40
Lower Powellton coal	1.1	5.6	1.36	0.78	0.06	0.021	0.022	0.066	0.33
Sewell coal	1.0	17.8	4.64	2.47	0.03	0.171	0.068	0.609	1.04
Powellton coal	1.3	5.4	1.16	0.95	0.06	0.036	0.023	0.086	0.18
Stockton coal	2.4	9.6	2.42	1.70	0.06	0.034	0.011	0.090	0.17
Pittsburgh coal	1.0	9.2	1.80	0.99	0.14	0.049	0.047	0.085	1.77
Stockton coal	1.1	25.3	6.80	3.71	0.09	0.152	0.052	0.632	1.25

ısis) for 729 National Coal Quality Inventory samples.

Coal	Moisture % (remnant)	Ash % (525oC)	Si %	Al %	Ca %	Mg %	Na %	K %	Fe %
Stockton coal	1.4	11.3	2.87	1.72	0.23	0.041	0.019	0.177	0.30
Little No. 5 Block coal	1.1	6.4	1.51	1.01	0.11	0.020	0.008	0.070	0.25
Lower Kittanning coal	1.4	18.6	3.38	2.53	0.11	0.043	0.014	0.158	3.43
Sewell coal	0.7	15.6	4.24	2.56	0.20	0.038	0.070	0.091	0.52
Sewell coal	0.8	39.2	12.70	4.50	0.31	0.148	0.083	0.690	0.57
Sewell coal	1.2	8.0	1.59	1.28	0.39	0.062	0.048	0.134	0.25
Middle Kittanning coal	1.0	21.7	4.68	2.89	0.18	0.036	0.022	0.119	2.72
Middle Kittanning coal	1.1	32.0	9.39	4.18	0.59	0.098	0.033	0.453	0.50
Upper Kittanning coal	1.5	17.6	2.13	0.98	0.17	0.071	0.012	0.205	6.58
Brush Creek coal	1.8	48.6	11.01	4.86	0.14	0.360	0.051	1.077	7.68
Lower Mercer coal	0.8	30.4	9.24	3.84	0.06	0.037	0.047	0.137	2.09
Upper Mercer coal	1.1	11.2	2.90	2.03	0.08	0.080	0.024	0.312	0.27
Quakertown coal	0.7	28.1	6.05	3.64	0.12	0.193	0.658	0.747	4.17
Quakertown coal	0.5	31.8	2.57	1.30	0.10	0.032	0.013	0.149	15.22
Sewickley coal	2.0	18.7	4.75	1.96	0.32	0.165	0.080	0.404	1.63
Waynesburg coal	2.3	16.9	3.37	1.81	0.08	0.073	0.041	0.276	3.18
Waynesburg coal	2.2	21.8	5.03	2.56	0.07	0.116	0.057	0.478	3.36
Sewickley coal	1.8	13.9	2.72	1.33	0.56	0.293	0.050	0.245	1.85
Pittsburgh coal	2.5	9.3	2.54	1.20	0.12	0.034	0.054	0.135	0.59
Pittsburgh coal	1.5	7.7	1.76	1.01	0.08	0.034	0.021	0.097	1.02
Pittsburgh coal	0.9	9.4	1.95	0.98	0.14	0.050	0.048	0.088	1.89
Lower Freeport coal	1.5	24.0	5.05	3.23	0.10	0.075	0.020	0.344	3.69
Upper Freeport coal	1.2	17.1	3.81	1.99	0.07	0.047	0.018	0.201	2.98
Lower Kittanning coal	1.2	32.6	8.69	5.03	0.07	0.093	0.038	0.495	2.04
Coalburg coal	1.9	3.9	0.91	0.83	0.06	0.025	0.012	0.019	0.13
Coalburg coal	2.1	15.3	4.68	2.29	0.05	0.059	0.023	0.193	0.19
Coalburg coal	2.3	13.1	3.73	2.21	0.06	0.080	0.031	0.280	0.21
Coalburg coal	1.9	7.6	2.68	0.75	0.05	0.020	0.013	0.019	0.21

ısis) for 729 National Coal Quality Inventory samples.

Coal	Moisture % (remnant)	Ash % (525oC)	Si %	Al %	Ca %	Mg %	Na %	K %	Fe %
Coalburg coal	2.2	3.8	0.98	0.66	0.06	0.021	0.008	0.050	0.11
Coalburg coal	2.1	31.4	9.38	4.53	0.06	0.225	0.040	1.067	0.49
Coalburg coal	1.9	14.1	4.13	2.05	0.05	0.083	0.015	0.354	0.27
Coalburg coal	2.3	44.7	13.24	6.15	0.08	0.326	0.066	1.405	0.81
Coalburg coal	1.7	4.7	1.20	0.87	0.04	0.021	0.012	0.056	0.12
Coalburg coal	1.3	10.6	3.09	1.89	0.05	0.035	0.012	0.151	0.12
No. 5 Block coal	4.1	8.1	2.16	1.31	0.05	0.042	0.015	0.179	0.31
Coalburg coal	3.1	7.8	2.21	1.21	0.07	0.041	0.013	0.130	0.10
Coalburg coal	3.4	8.0	2.23	1.42	0.04	0.035	0.013	0.144	0.10
Coalburg coal	3.2	4.8	1.30	0.78	0.07	0.034	0.010	0.076	0.16
Upper Freeport coal	2.5	34.6	8.96	4.27	0.12	0.114	0.039	0.476	3.78
Upper No. 5 Block coal	3.1	28.7	3.44	1.79	0.19	0.066	0.020	0.244	10.77
Clarion coal	1.2	26.2	6.42	3.40	0.25	0.075	0.038	0.354	2.33
Chilton coal	1.4	18.2	3.63	2.12	0.10	0.095	0.037	0.283	3.16
Coalburg coal	1.1	13.5	3.60	1.81	0.08	0.083	0.025	0.289	0.89
Coalburg coal	2.1	45.0	13.40	6.29	0.09	0.336	0.067	1.426	0.84

Ti %	S %	Cl %	P %	Ag ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Cd ppm	Co ppm	Cr ppm
0.060		<0.015	0.0214	<0.14	3.2	27	172	0.7	0.17	0.17	2.7	13.4
0.141		<0.015	0.0553	<0.19	2.2	35	317	0.7	0.33	1.14	3.3	16.7
0.036		<0.015	0.0045	<0.04	0.5	26	186	0.1	0.04	0.03	1.0	1.8
0.030		<0.015	0.0048	<0.04	0.5	26	193	0.1	0.03	0.02	0.7	1.5
0.028		<0.015	0.0189	<0.04	1.0	24	199	0.1	0.03	0.08	0.9	2.5
0.017		<0.015	0.0133	<0.04	0.6	28	196	0.1	0.02	0.02	0.6	1.9
0.061		<0.015	0.1780	<0.07	1.4	29	767	0.1	0.15	0.12	1.4	5.5
0.027		<0.015	0.1310	<0.07	0.6	33	589	0.3	0.05	0.02	1.4	4.8
0.184		<0.015	0.0904	<0.36	1.8	36	660	1.5	0.34	0.28	5.1	32.3
0.024		<0.015	0.0482	<0.05	0.5	27	318	0.1	0.05	0.02	0.8	2.1
0.026		<0.015	0.0502	<0.05	0.4	29	329	0.1	0.04	0.03	0.7	1.7
0.030		<0.015	0.0153	<0.05	0.5	25	199	0.1	0.04	0.03	0.8	1.6
0.030		<0.015	0.0159	<0.05	0.5	27	225	0.1	0.04	0.03	0.9	1.7
0.047	0.37	0.035	0.0247	0.29	1.1	39	314	0.2	0.02	0.05	1.5	3.2
0.055	0.37	0.025	0.0285	0.26	1.1	42	337	0.3	0.02	0.07	1.9	4.2
0.047	0.38	0.019	0.0247	0.11	0.7	40	314	0.3	0.02	0.07	1.7	3.7
0.055	0.38	0.023	0.0292	<0.13	0.9	41	188	0.3	0.02	0.06	1.8	3.6
0.054	0.40	0.019	0.0336	<0.13	1.4	39	314	0.3	0.02	0.08	2.0	5.0
0.062	0.36	<0.015	0.0357	<0.15	1.9	44	367	0.3	0.03	0.10	2.4	6.0
0.049	0.36	0.020	0.0275	<0.13	1.2	38	298	0.3	0.02	0.07	1.8	4.7
0.054	0.37	0.017	0.0289	0.25	1.4	41	315	0.3	0.10	0.08	2.1	4.7
0.051	0.32	0.033	0.0184	0.17	0.7	42	309	0.2	0.05	0.05	1.6	3.7
0.048	0.34	<0.015	0.0155	0.15	0.6	37	290	0.2	0.04	0.04	1.6	3.3
0.045	0.35	0.018	0.0164	0.15	0.7	37	278	0.2	0.04	0.05	1.6	3.5

Ti	S	Cl	P	Ag	As	B	Ba	Be	Bi	Cd	Co	Cr
%	%	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
0.056	0.37	0.021	0.0189	0.22	0.8	42	317	0.2	0.04	0.06	1.8	4.8
0.068	0.41	0.021	0.0128	<0.28	1.4	30	301	0.4	0.04	0.05	3.4	8.3
0.082	0.39	0.040	0.0213	<0.35	1.5	35	416	0.5	0.05	0.08	3.6	12.4
0.067	0.43	0.023	0.0208	<0.28	1.4	38	423	0.4	0.03	0.06	3.1	8.6
0.065	0.42	0.041	0.0200	<0.28	1.3	32	435	0.4	0.04	0.06	2.8	8.4
0.042	0.22	0.050	0.0608	0.22	0.8	35	518	0.4	0.03	0.06	2.6	3.4
0.045	0.24	0.053	0.0478	0.23	0.8	28	408	0.4	0.03	0.08	2.8	3.2
0.046	0.22	0.034	0.0502	0.20	0.8	31	451	0.4	0.03	0.08	2.7	3.3
0.055	0.26	0.030	0.0581	0.18	0.8	34	624	0.3	0.03	0.07	2.5	4.4
0.041	1.26	0.072	0.0191	<0.16	5.0	49	273	0.5	0.04	0.21	3.0	5.5
0.050	1.33	0.066	0.0250	0.30	6.9	49	311	0.5	0.16	0.27	4.0	9.0
0.033	1.30	0.058	0.0211	0.19	6.2	49	244	0.4	0.05	0.26	4.1	3.3
0.046	1.25	<0.015	0.0256	0.20	3.9	54	292	0.4	0.06	0.25	3.2	5.0
0.044	1.15	0.057	0.0240	0.17	1.1	42	295	0.2	0.03	0.06	1.8	3.0
0.053	0.39	0.026	0.0273	0.17	1.3	44	347	0.3	0.03	0.07	1.9	3.3
0.044	0.41	0.054	0.0275	0.15	1.1	39	295	0.2	0.03	0.05	1.6	3.2
0.046	0.41	0.042	0.0237	0.15	1.0	38	297	0.2	0.03	0.05	1.7	2.8
0.046	0.33	0.041	0.0145	0.14	1.1	35	269	0.2	0.03	0.05	1.6	3.0
0.066	0.42	0.080	0.0173	<0.30	1.3	30	379	0.4	0.05	0.07	3.3	8.2
0.055	0.40	0.015	0.0212	<0.14	0.1	36	281	0.3	0.04	0.07	1.8	4.7
0.053	0.41	<0.015	0.0191	<0.14	0.2	34	279	0.2	0.04	0.07	1.9	4.8
0.056	0.45	0.017	0.0230	<0.13	0.4	37	270	0.2	0.03	0.09	1.9	4.5
0.058	0.47	0.017	0.0225	<0.13	0.4	37	283	0.2	0.04	0.09	2.0	4.8
0.050	0.45	0.019	0.0217	<0.12	0.7	36	293	0.2	0.03	0.07	1.9	3.9
0.051	0.44	0.057	0.0238	<0.13	0.5	38	298	0.2	0.03	0.08	2.1	4.2
0.046	0.42	0.021	0.0211	<0.12	0.4	33	257	0.2	0.03	0.07	1.8	3.7
0.054	0.42	<0.015	0.0249	<0.13	0.4	41	291	0.2	0.03	0.08	2.0	4.1
0.053	0.45	0.016	0.0229	<0.13	0.4	40	299	0.2	0.08	0.09	2.0	4.2

Ti	S	Cl	P	Ag	As	B	Ba	Be	Bi	Cd	Co	Cr
%	%	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
0.053	0.44	0.020	0.0226	<0.13	1.2	38	289	0.3	0.08	0.07	2.0	4.4
0.053	0.47	0.019	0.0232	<0.13	1.2	41	291	0.2	0.12	0.07	1.9	4.2
0.045	0.42	0.017	0.0211	<0.11	0.9	36	259	0.2	0.04	0.06	1.8	3.4
0.049	0.41	0.019	0.0224	<0.11	1.0	39	285	0.2	0.03	0.07	1.7	3.4
0.048	0.42	0.020	0.0224	<0.12	1.0	38	273	0.2	0.03	0.06	1.8	3.4
0.047	0.43	0.017	0.0215	0.13	1.3	37	258	0.2	0.05	0.06	1.9	3.6
0.049	0.43	0.018	0.0247	<0.12	1.1	38	282	0.2	0.03	0.05	1.9	3.7
0.047	0.46	0.022	0.0214	<0.12	1.1	37	254	0.2	0.03	0.06	1.9	3.7
0.049	0.47	0.022	0.0206	<0.12	1.2	37	262	0.2	0.03	0.06	2.0	3.7
0.048	0.43	0.017	0.0213	<0.12	1.1	36	276	0.3	0.03	0.08	2.0	3.9
0.048	0.34	0.016	0.0210	<0.11	0.8	34	285	0.2	0.03	0.05	1.7	3.7
0.047	0.31	0.031	0.0191	<0.11	0.6	33	287	0.1	0.03	0.04	1.6	3.4
0.048	0.36	<0.015	0.0210	<0.12	0.8	36	289	0.2	0.03	0.07	1.7	4.2
0.045	0.35	0.016	0.0232	<0.11	0.9	35	296	0.2	0.03	0.06	1.7	3.4
0.050	0.38	0.019	0.0227	<0.13	1.0	35	291	0.2	0.03	0.07	1.7	5.3
0.047	0.35	0.016	0.0219	<0.11	0.9	35	286	0.2	0.03	0.04	1.8	3.8
0.046	0.35	<0.015	0.0195	<0.11	0.8	33	283	0.2	0.03	0.05	1.7	3.9
0.046	0.40	<0.015	0.0220	<0.12	1.0	34	264	0.2	0.03	0.05	1.7	4.2
0.057	0.37	0.025	0.0309	<0.14	1.3	37	319	0.3	0.03	0.08	2.2	5.5
0.056	0.37	0.019	0.0318	<0.14	1.2	38	327	0.3	0.04	0.09	2.1	5.3
0.056	0.37	0.028	0.0314	<0.13	1.3	36	298	0.2	0.04	0.08	2.1	5.2
0.051	0.41	0.019	0.0235	<0.12	1.0	40	301	0.2	0.03	0.07	1.9	3.6
0.047	0.32	0.037	0.0196	<0.11	0.6	36	290	0.2	0.02	0.04	1.6	3.4
0.055	0.38	<0.015	0.0323	<0.13	1.3	38	263	0.2	0.02	0.09	1.9	4.5
0.055	0.38	0.017	0.0313	<0.13	1.2	40	285	0.2	0.03	0.07	2.0	4.8
0.051	0.38	<0.015	0.0303	<0.13	1.3	38	278	0.2	0.02	0.09	2.0	4.3
0.054	0.37	<0.015	0.0307	<0.13	1.3	38	275	0.3	0.02	0.08	1.9	4.4
0.056	0.36	<0.015	0.0310	<0.13	1.2	36	289	0.2	0.02	0.07	1.9	4.6

Ti	S	Cl	P	Ag	As	B	Ba	Be	Bi	Cd	Co	Cr
%	%	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
0.056	0.37	<0.015	0.0313	<0.13	1.5	37	312	0.2	0.03	0.09	2.0	4.7
0.054	0.36	0.035	0.0296	<0.13	1.5	36	306	0.2	0.02	0.09	1.9	4.6
0.058	0.37	<0.015	0.0328	<0.13	1.3	39	317	0.2	0.03	0.08	1.9	4.5
0.055	0.39	0.019	0.0300	<0.13	1.5	37	299	0.2	0.03	0.07	1.9	4.5
0.051	0.38	<0.015	0.0268	<0.12	1.1	39	298	0.2	0.02	0.08	1.7	3.6
0.048	0.38	<0.015	0.0270	<0.12	1.1	39	286	0.2	0.02	0.07	1.8	3.4
0.050	0.40	<0.015	0.0275	<0.12	1.1	42	290	0.2	0.02	0.06	1.6	3.3
0.047	0.40	<0.015	0.0241	<0.12	1.2	39	269	0.2	0.02	0.07	1.6	3.3
0.054	0.39	<0.015	0.0299	<0.12	1.3	39	277	0.2	0.02	0.07	1.7	3.6
0.049	0.40	<0.015	0.0185	<0.15	1.5	31	377	0.2	0.01	0.04	2.1	4.2
0.044	0.38	0.019	0.0171	<0.14	0.8	32	261	0.1	0.01	0.03	2.0	3.3
0.055	0.35	0.020	0.0256	<0.14	0.8	30	249	0.2	0.07	0.03	2.0	3.6
0.056	0.35	<0.015	0.0232	<0.15	0.6	31	278	0.2	0.04	0.03	2.0	3.6
0.051	0.41	<0.015	0.0281	<0.14	0.6	29	403	0.2	0.04	0.03	2.0	3.6
0.055	0.41	0.025	0.0277	<0.15	0.6	30	562	0.2	0.04	0.04	2.2	3.9
0.046	0.23	<0.015	0.0783	0.15	0.9	35	518	0.4	0.05	0.12	2.5	4.7
0.042	0.24	0.016	0.0778	0.14	0.8	35	512	0.4	0.04	0.12	2.5	4.4
0.040	0.24	0.045	0.0714	0.16	0.7	35	487	0.4	0.04	0.09	2.4	3.7
0.039	0.25	<0.015	0.0670	0.15	0.7	34	444	0.4	0.04	0.11	2.2	3.7
0.042	0.24	0.018	0.0774	0.16	0.8	36	511	0.4	0.04	0.09	2.5	4.1
0.040	0.23	<0.015	0.0769	0.15	0.8	36	529	0.4	0.04	0.10	2.4	4.4
0.058	0.91	<0.015	0.0238	<0.20	4.5	48	318	0.4	0.05	0.24	3.4	8.2
0.056	0.99	0.016	0.0235	<0.19	5.2	50	338	0.4	0.05	0.21	3.5	7.3
0.051	0.41	<0.015	0.0269	<0.13	1.2	43	322	0.2	0.03	0.07	2.0	3.8
0.053	0.38	<0.015	0.0294	<0.13	1.2	44	329	0.2	0.04	0.06	1.9	3.7
0.049	0.38	0.028	0.0281	<0.12	1.1	40	303	0.2	0.03	0.07	1.7	3.5
0.053	0.38	0.018	0.0295	0.13	1.3	38	284	0.3	0.05	0.08	2.0	4.6

Ti %	S %	Cl %	P %	Ag ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Cd ppm	Co ppm	Cr ppm
0.038	0.63	<0.015	0.0018	<0.20	1.4	201	352	0.7	0.07	0.06	1.3	5.7
0.038	0.53	<0.015	0.0020	<0.18	1.1	235	294	0.5	0.07	0.05	1.2	4.3
0.021	0.58	<0.015	0.0016	<0.12	0.7	260	294	0.1	0.05	0.03	0.9	3.1
0.071	0.72	<0.015	0.0060	<0.23	0.9	197	491	0.3	0.11	0.07	1.7	7.5
0.061	0.72	<0.015	0.0200	<0.20	2.8	148	448	0.3	0.11	0.08	1.7	6.7
0.010	0.72	<0.015	0.0004	<0.06	0.5	83	71	0.1	0.02	0.03	0.4	1.5
0.021	0.69	<0.015	0.0025	<0.09	0.4	83	90	0.2	0.03	0.03	0.6	1.6
0.013	0.69	<0.015	0.0039	<0.07	0.5	90	68	0.2	0.03	0.02	0.5	1.6
0.012	0.77	<0.015	0.0008	<0.07	0.4	86	86	0.1	0.03	0.03	0.5	1.6
0.017	2.09	<0.015	0.0025	<0.10	0.6	73	210	0.6	0.03	0.22	3.6	3.0
0.022	1.96	<0.015	0.0024	<0.15	0.8	89	195	0.9	0.04	0.20	2.9	4.8
0.039	0.67	<0.015	0.0008	<0.19	0.9	28	146	1.8	0.10	0.02	4.9	3.1
0.048	2.07	<0.015	0.0049	<0.28	6.5	32	190	1.0	0.10	0.06	4.4	6.6
0.159	0.78	<0.015	0.0025	<0.58	1.2	<6	234	<0.3	0.21	0.03	5.6	10.2
0.038	0.96	<0.015	0.0008	<0.18	1.3	30	153	0.7	0.09	0.04	3.7	3.1
0.041	1.86	<0.015	0.0011	<0.26	8.2	26	152	1.0	0.09	0.06	4.3	5.9
0.218	0.58	<0.015	0.0032	<0.73	4.0	37	135	1.4	0.51	0.22	6.3	19.2
0.151	1.14	<0.015	0.0036	<0.82	3.2	21	757	2.0	0.41	0.04	1.5	7.2
0.144	0.49	<0.015	0.0012	<0.27	0.5	22	15	0.5	0.68	0.01	2.1	4.7
0.073	0.90	<0.015	0.0022	<0.15	1.7	97	26	0.4	0.13	0.07	2.5	3.4
0.039	0.82	<0.015	0.1000	<0.09	0.3	121	45	0.2	0.06	0.05	1.2	1.6
0.061	1.31	<0.015	0.0050	<0.13	6.8	101	22	0.9	0.13	0.13	1.4	3.4
0.042	0.53	<0.015	0.0494	<0.18	1.0	153	249	0.2	0.15	0.10	1.3	2.4
0.053	0.43	<0.015	0.0663	<0.16	0.7	174	386	0.1	0.16	0.11	0.9	2.0
0.038	0.50	<0.015	0.0853	<0.17	0.7	222	301	0.3	0.13	0.09	1.4	2.2
0.059	0.35	<0.015	0.0562	<0.28	1.2	211	274	<0.1	0.12	0.15	1.7	4.8

Ti	S	Cl	P	Ag	As	B	Ba	Be	Bi	Cd	Co	Cr
%	%	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
0.067	0.47	<0.015	0.1660	<0.28	1.6	175	370	0.7	0.16	0.16	2.4	5.4
0.040	0.83	<0.015	0.0219	<0.17	7.3	196	189	1.1	0.22	0.16	1.7	5.0
0.021	0.50	<0.015	0.0349	<0.09	0.6	180	130	<0.1	0.08	0.01	0.7	1.6
0.040	0.51	<0.015	0.0964	<0.17	1.7	150	544	1.0	0.07	0.04	3.3	4.5
0.083	0.39	<0.015	0.0990	<0.33	1.1	105	512	0.5	0.24	0.11	1.8	7.1
0.059	0.43	<0.015	0.0779	<0.21	0.9	113	429	0.5	0.19	0.06	1.4	4.5
0.085	0.57	0.036	0.0278	<0.24	0.5	125	102	0.5	0.20	0.06	2.1	6.0
0.025	0.37	<0.015	0.0614	<0.08	0.3	195	141	0.1	0.10	0.02	1.1	1.8
0.051	0.39	0.018	0.0237	<0.13	0.7	285	303	0.5	0.20	0.04	2.4	3.3
0.030	0.48	<0.015	0.0254	<0.12	1.7	122	301	0.7	0.07	0.04	2.6	3.6
0.040	0.37	<0.015	0.0204	<0.15	1.5	108	288	0.3	0.08	0.04	1.3	2.6
0.033	0.53	<0.015	0.0216	<0.14	1.0	126	368	0.5	0.07	0.04	1.4	3.9
0.042	0.39	<0.015	0.0998	<0.18	0.9	75	443	1.1	0.08	0.05	1.8	3.9
0.035	0.37	<0.015	0.0335	<0.13	0.4	65	326	0.5	0.08	0.03	0.9	2.6
0.041	0.51	<0.015	0.0126	<0.16	0.5	207	314	0.2	0.11	0.08	1.3	1.8
0.066	0.80	<0.015	0.0111	<0.15	0.4	73	25	0.2	0.10	0.06	1.2	1.8
0.128	1.05	<0.015	0.0019	<0.43	2.8	43	127	1.4	0.30	0.17	6.9	11.1
0.043	0.43	<0.015	0.0198	<0.15	0.9	147	160	0.6	0.12	0.02	1.1	2.5
0.043	0.55	0.018	0.0534	<0.15	0.7	240	249	0.3	0.12	0.07	1.9	4.3
0.046	0.65	<0.015	0.0235	<0.20	0.5	200	247	0.3	0.17	0.12	1.9	2.9
0.085	0.60	<0.015	0.0428	<0.22	4.1	110	133	0.2	0.17	0.09	1.7	2.7
0.072	0.37	<0.015	0.0503	<0.35	0.6	179	329	1.0	0.29	0.13	3.0	7.7
0.042	0.48	<0.015	0.0460	<0.17	0.5	156	267	<0.8	0.05	0.06	0.8	2.9
0.054	0.55	<0.015	0.0422	<0.21	1.3	128	254	0.3	0.12	0.11	1.4	3.7
0.027	0.60	0.028	0.0144	<0.12	1.1	108	129	0.3	0.05	0.04	1.0	1.7
0.027	0.68	0.033	0.0143	<0.11	1.1	118	138	0.3	0.05	0.06	1.0	1.4
0.055	0.31	0.021	0.0260	<0.29	0.6	40	204	0.5	0.03	0.05	1.6	6.5
0.048	0.28	0.016	0.0119	<0.24	0.4	30	155	0.5	0.03	0.04	1.3	4.9

Ti	S	Cl	P	Ag	As	B	Ba	Be	Bi	Cd	Co	Cr
%	%	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
0.038	0.35	0.017	0.0269	<0.14	0.4	50	221	0.6	0.04	0.02	1.3	3.1
0.005	0.30	0.019	0.0182	<0.03	0.1	19	125	0.1	0.01	0.00	0.2	0.4
0.015	0.31	0.035	0.0122	<0.06	0.2	29	149	0.2	0.03	0.02	0.5	1.0
0.014	0.51	0.050	0.0110	<0.05	0.3	32	156	0.2	0.03	0.01	0.5	1.5
0.021	0.25	0.026	0.0225	<0.09	0.4	56	261	0.2	0.03	0.03	0.9	2.0
0.007	0.41	0.022	0.0017	<0.04	0.2	21	106	0.2	0.01	0.01	0.5	1.0
0.015	0.24	0.016	0.0284	<0.06	0.3	49	208	0.1	0.02	0.01	0.6	1.2
0.012	0.51	0.020	0.0191	<0.05	0.1	47	196	0.3	0.03	0.01	0.6	0.8
0.009	0.63	0.026	0.0106	<0.06	0.4	78	358	0.4	0.01	0.01	0.6	1.4
0.020	0.34	0.016	0.0250	<0.08	0.4	82	224	0.2	0.02	0.02	0.7	1.5
0.041	0.58	0.030	0.0641	<0.14	1.0	6	145	0.7	0.11	0.02	2.6	4.1
0.046	0.58	0.021	0.0730	<0.16	0.5	7	166	0.6	0.09	0.08	2.1	6.5
0.025	0.72	0.029	0.0135	<0.09	1.2	102	126	0.3	0.06	0.05	0.8	1.2
0.011		0.281	0.0017	<0.13	6.5	61	8	3.8	<0.13	0.20	1.2	2.0
0.015		0.275	0.0039	<0.14	3.8	65	10	3.0	<0.14	0.28	1.4	4.8
0.028		0.155	0.0035	<0.16	2.4	55	20	2.3	<0.16	0.16	5.5	5.3
0.015		0.306	0.0133	<0.08	25.3	70	31	0.8	0.03	0.05	3.4	9.5
0.020		0.051	0.0098	<0.19	42.4	4	29	0.2	0.03	0.04	6.1	10.4
0.025		0.026	0.0099	<0.22	28.7	14	35	0.3	0.05	0.05	3.8	10.1
0.015	3.91	0.351	0.0162	<0.12	2.1	44	10	3.1	0.03	0.09	1.2	4.3
0.035	0.44	0.051	0.0030	<0.14	1.4	31	30	2.1	0.03	0.01	8.7	7.3
0.098		0.115	0.0063	<0.36	27.0	171	54	2.9	<0.36	0.18	5.2	17.8
0.053		<0.015	0.0073	0.42	125.0	68	47	2.9	<0.28	<0.12	9.2	13.9
0.085		<0.015	0.0145	0.30	5.3	84	43	2.8	<0.21	1.52	8.7	17.2

Ti	S	Cl	P	Ag	As	B	Ba	Be	Bi	Cd	Co	Cr
%	%	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
0.076		<0.015	0.0669	0.84	73.6	72	48	1.8	<0.40	0.90	19.3	29.9
0.036		0.023	0.0144	0.08	26.2	97	38	2.6	0.05	0.51	6.3	9.2
0.044		0.023	0.0100	0.13	33.5	100	34	2.5	0.08	0.02	6.8	9.1
0.035		0.021	0.0196	0.11	29.6	107	22	2.5	0.04	4.23	5.6	8.5
0.065		0.128	0.0224	0.13	6.6	41	57	2.0	0.07	1.60	8.0	27.7
0.072		0.101	0.0208	0.13	5.6	39	69	2.2	0.09	5.42	7.3	24.5
0.066		0.195	0.0048	<0.13	6.5	33	258	1.5	0.08	8.35	9.0	16.1
0.049		0.062	0.0025	<0.09	6.8	111	37	1.0	0.06	0.24	5.6	9.7
0.056		0.070	0.0179	0.34	39.9	105	38	2.5	<0.23	0.34	4.6	17.1
0.135		0.066	0.0650	0.99	151.0	85	89	2.5	<0.46	2.52	18.1	43.5
0.058		0.083	0.0062	<0.21	4.0	111	36	1.6	<0.21	0.20	4.0	17.2
0.051		0.092	0.0077	<0.32	24.0	67	26	1.6	<0.32	0.32	4.5	15.5
0.080		0.096	0.0082	<0.32	20.3	120	48	2.7	<0.32	0.16	6.2	17.2
0.064		0.146	0.0581	0.36	10.9	98	121	2.8	<0.25	0.36	11.5	19.4
0.052		0.077	0.0231	0.72	36.2	99	99	3.1	<0.49	21.00	14.0	31.3
0.029		0.134	0.0164	<0.25	18.2	86	18	3.0	<0.25	0.12	2.7	12.0
0.050		0.099	0.0094	<0.31	3.1	74	23	1.5	<0.31	2.00	2.9	15.4
0.089		0.081	0.0119	<0.42	10.2	92	52	5.4	<0.42	<0.17	14.2	20.9
0.016		0.091	0.0047	<0.18	35.6	45	6	4.7	<0.18	2.67	7.2	7.9
0.103		0.125	0.0081	0.43	45.8	69	46	5.0	<0.29	<0.12	15.7	21.5
0.065		0.047	0.0078	<0.23	14.6	134	39	2.8	<0.23	0.22	5.2	14.6
0.049		0.069	0.0057	<0.19	4.9	87	25	2.0	<0.19	0.09	4.4	13.0
0.061		0.090	0.0150	<0.41	34.3	63	49	1.6	<0.41	0.81	4.2	24.2
0.071		0.121	0.0054	<0.36	14.0	81	43	2.1	<0.36	0.18	5.3	17.7
0.057		0.124	0.0166	<0.30	58.4	85	45	6.4	<0.30	0.29	24.8	19.0
0.063		0.159	0.0086	0.33	37.4	78	36	6.6	<0.22	0.22	13.2	22.0
0.051		0.249	0.0186	0.14	4.3	59	33	2.4	<0.15	0.21	3.0	10.7
0.059		0.174	0.0057	<0.27	3.9	58	28	1.8	<0.27	0.13	3.0	14.4

Ti	S	Cl	P	Ag	As	B	Ba	Be	Bi	Cd	Co	Cr
%	%	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
0.076		0.134	0.0148	0.54	25.1	63	50	3.4	<0.36	1.70	11.6	23.3
0.018	0.69	0.032	0.0032	<0.04	1.2	165	8	2.6	0.02	0.01	6.9	4.0
0.056	0.61	0.032	0.1373	<0.14	1.4	90	32	2.1	0.04	1.49	6.5	6.0
0.067	0.67	0.025	0.0719	<0.16	1.6	102	105	3.7	0.07	0.09	12.7	15.8
0.032	2.13	0.033	0.0016	0.15	22.6	126	12	3.4	0.02	0.02	19.1	10.9
0.060	1.67	0.030	0.0043	0.22	13.8	94	25	2.7	0.04	0.02	18.7	9.4
0.029	1.35	0.042	0.0153	0.10	7.8	85	19	3.0	0.02	0.01	13.0	5.6
0.047	1.56	0.016	0.0465	0.22	21.2	102	59	3.3	0.05	0.04	14.7	18.1
0.024	1.68	0.049	0.0016	0.11	2.9	143	15	3.5	0.03	0.08	12.3	7.1
0.072	0.69	0.028	0.0027	<0.16	1.4	80	28	2.7	0.04	0.03	11.9	11.5
0.022	2.02	0.028	0.0013	<0.10	1.1	92	10	2.3	0.03	1.96	9.2	4.5
0.048	0.79	0.020	0.0229	<0.10	1.8	78	33	3.7	0.05	0.10	16.6	14.1
0.046	1.26	0.025	0.0029	<0.13	19.0	112	18	2.6	0.03	0.03	10.5	8.1
0.182	1.08	0.016	0.0435	0.39	15.9	103	116	3.7	0.21	0.03	8.6	38.6
0.066	3.30	0.027	0.1298	<0.30	35.0	106	82	3.2	0.18	2.68	24.8	31.0
0.026	5.93	0.048	0.0061	<0.19	12.1	219	13	2.0	0.07	0.03	3.4	5.1
0.028	4.87	0.035	0.0064	<0.16	9.8	214	10	2.1	0.04	0.03	3.4	5.4
0.013	5.18	0.027	0.0083	<0.15	64.2	195	7	2.9	0.03	0.05	5.3	3.0
0.013	3.13	0.034	0.0070	<0.08	21.2	201	7	3.1	0.04	0.03	4.7	2.9
0.077	3.25	0.023	0.0335	<0.21	28.4	182	55	3.6	0.07	0.06	11.1	13.7
0.077	3.00	0.037	0.0318	<0.20	25.1	210	51	3.7	0.06	0.07	11.5	15.4
0.018	2.96	0.045	0.0476	<0.14	67.3	271	43	3.3	0.09	0.16	14.2	10.7
0.017	1.89	0.050	0.0543	<0.09	24.6	291	43	3.4	0.06	0.10	12.9	10.4
0.010	3.56	0.025	0.0306	<0.09	72.4	306	5	2.8	0.02	0.07	6.3	3.8
0.010	2.01	0.031	0.0330	<0.06	36.4	322	5	2.8	0.02	0.06	5.6	3.9
0.019	2.77	0.030	0.0119	<0.10	53.3	263	11	3.0	0.03	0.12	5.2	5.6
0.021	1.92	0.044	0.0124	<0.07	31.0	254	10	3.2	0.03	0.08	4.8	5.7
0.032	1.49	0.034	0.0013	<0.09	6.8	269	16	3.7	0.02	0.78	4.6	5.4

Ti	S	Cl	P	Ag	As	B	Ba	Be	Bi	Cd	Co	Cr
%	%	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
0.031	1.34	0.038	0.0004	<0.08	7.5	330	16	4.1	0.02	0.26	4.9	5.2
0.087	1.39	0.048	0.0010	<0.24	4.3	209	38	3.4	0.06	0.04	5.6	14.4
0.087	1.32	0.035	<0.0020	<0.22	4.0	232	46	3.5	0.06	0.05	5.4	15.4
0.093	1.50	0.040	0.0011	<0.26	4.1	235	54	3.3	0.05	0.04	6.4	16.3
0.097	1.30	0.059	<0.0020	<0.26	3.2	204	44	3.2	0.04	0.03	6.1	15.7
0.064	1.58	0.032	0.0022	<0.17	3.2	248	30	3.3	0.10	0.29	7.1	11.8
0.057	1.27	0.049	0.0022	<0.15	3.1	221	30	3.0	0.06	0.08	6.2	10.3
0.031	1.27	0.024	0.0183	<0.08	6.8	89	16	2.8	0.03	0.01	11.9	5.2
0.027	5.16	0.046	0.0069	<0.16	9.5	214	10	2.2	0.03	0.03	3.5	5.6
0.022	1.91	0.043	0.0137	<0.07	32.9	261	9	3.1	0.03	0.07	4.9	5.5
0.039	1.33	0.041	0.0014	<0.11	4.9	231	24	4.6	0.03	0.05	6.5	7.6
0.037	1.23	0.035	0.0012	<0.09	3.6	254	23	4.8	0.03	0.06	6.7	7.5
0.092	1.33	0.028	0.0028	<0.26	21.2	201	56	3.9	0.05	0.29	11.6	17.9
0.094	1.07	0.031	0.0021	<0.24	5.3	196	56	4.1	0.05	0.50	9.5	18.2
0.064	1.33	0.040	0.0027	<0.18	5.4	198	39	3.9	0.04	0.18	12.5	12.6
0.058	1.21	0.060	0.0025	<0.17	3.9	194	34	4.1	0.04	0.08	13.4	12.7
0.048	4.76	0.047	0.0045	<0.26	84.0	203	39	2.7	0.03	2.02	15.5	9.8
0.021	4.11	0.050	0.0028	<0.15	58.7	225	15	2.6	0.02	0.26	10.7	5.6
0.028	3.21	0.045	0.0023	<0.15	28.9	176	18	2.6	0.07	0.14	6.4	8.6
0.026	2.83	0.058	0.0017	<0.13	23.6	173	16	2.7	0.04	0.10	6.3	8.7
0.101	3.01	0.043	0.0073	<0.34	18.8	158	65	2.3	0.07	4.64	13.6	18.5
0.094	2.84	0.046	0.0056	<0.29	16.3	166	61	2.4	0.06	0.26	13.7	16.4
0.175	0.86	0.063	0.0100	<0.42	11.1	125	101	3.7	0.09	1.34	15.3	36.8
0.118	0.91	0.101	0.0022	0.27	11.6	132	44	3.3	0.05	0.40	12.8	29.8
0.103	0.53	0.070	0.0043	<0.25	1.7	127	59	3.2	0.06	2.41	7.9	20.0
0.100	0.48	0.080	0.0036	<0.24	1.1	138	61	3.6	0.07	0.07	8.4	20.1
0.044	0.60	0.083	0.0014	<0.14	<0.1	137	30	2.5	0.05	2.94	7.3	7.9
0.048	0.59	0.082	0.0017	<0.12	<0.1	144	28	2.4	0.05	1.91	7.2	7.7

Ti	S	Cl	P	Ag	As	B	Ba	Be	Bi	Cd	Co	Cr
%	%	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
0.054	0.53	0.078	0.0046	<0.15	<0.1	155	34	2.9	0.04	0.04	5.4	10.4
0.053	0.49	0.083	0.0036	<0.14	<0.1	140	33	2.8	0.03	0.03	5.2	10.5
0.222	0.53	0.057	0.0205	<0.68	0.4	151	161	3.6	0.14	0.12	10.8	39.3
0.078	0.56	0.103	0.0039	<0.20	1.6	119	49	3.5	0.05	0.10	7.3	14.9
0.012	0.84	0.030	0.0056	<0.06	6.9	127	10	3.2	0.03	0.10	7.1	4.2
0.009	0.79	0.029	0.0044	<0.04	4.2	134	8	3.0	0.03	0.06	6.1	4.0
0.008	0.79	0.022	0.0011	<0.06	6.6	148	3	3.5	0.03	0.02	5.7	3.7
0.008	0.76	0.036	0.0007	<0.03	3.6	137	3	3.0	0.02	0.02	4.7	2.8
0.050	1.06	0.054	0.0187	<0.14	5.9	163	59	3.1	0.18	0.08	5.0	9.3
0.039	0.97	0.021	0.0155	<0.10	5.6	116	49	3.5	0.14	0.08	5.2	9.1
0.041	4.07	0.051	0.0038	<0.20	146.0	73	14	2.2	0.06	0.07	5.5	7.0
0.043	2.74	0.031	0.0029	<0.15	88.1	63	12	2.2	0.05	0.03	4.2	6.2
0.008	1.96	0.028	0.0015	<0.08	8.7	82	3	2.3	0.03	0.09	4.5	2.8
0.010	1.64	0.059	0.0012	<0.07	7.3	83	3	2.6	0.04	0.06	5.0	3.1
0.018	1.57	0.019	0.0091	<0.13	5.6	81	15	4.5	0.10	0.27	10.7	13.7
0.021	1.23	0.025	0.0090	<0.12	4.2	90	16	4.9	0.09	0.05	10.9	15.0
0.050	1.67	0.023	0.0176	<0.21	6.3	112	42	3.9	0.11	0.11	16.7	36.3
0.052	1.57	0.025	0.0134	<0.20	5.0	108	40	3.7	0.10	0.10	15.3	31.2
0.045	2.99	0.023	0.0026	<0.15	81.0	74	12	2.3	0.05	0.03	4.2	5.6
0.094	1.47	0.034	0.0028	<0.26	30.0	187	55	3.5	0.04	0.21	11.3	14.7
0.032	3.09	0.059	0.0021	<0.14	26.3	210	20	2.6	0.02	0.11	6.1	8.3
0.037	0.67	0.037	0.0019	<0.09	1.8	102	23	2.8	0.02	0.09	11.9	7.7
0.041	0.62	0.052	0.0018	<0.08	2.0	119	22	2.9	0.03	0.40	12.4	7.1
0.035	0.69	0.031	0.0022	<0.08	2.0	88	12	3.4	0.04	0.02	15.1	6.6
0.032	0.60	0.070	0.0022	<0.07	1.4	107	10	2.8	0.02	0.01	11.8	5.4
0.053	1.41	0.046	0.0295	0.11	6.8	96	44	4.1	0.05	0.01	21.0	20.2
0.050	0.83	0.064	0.0282	0.12	5.1	91	43	3.7	0.04	0.01	15.7	12.9
0.026	2.28	0.021	0.0024	0.15	17.7	153	17	2.4	0.02	0.09	12.2	6.7

Ti	S	Cl	P	Ag	As	B	Ba	Be	Bi	Cd	Co	Cr
%	%	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
0.024	2.08	0.048	0.0016	0.15	14.5	162	13	2.4	0.02	0.06	12.5	6.1
0.079	0.87	0.015	0.0046	0.18	5.3	82	27	2.9	0.07	0.01	6.7	14.9
0.088	0.64	0.041	0.0052	<0.19	2.3	86	29	3.0	0.09	0.01	6.3	16.7
0.033	1.12	0.031	0.0041	<0.10	6.6	79	19	2.8	0.03	1.13	11.7	8.8
0.034	0.82	0.036	0.0038	<0.09	3.8	96	19	3.2	0.07	0.52	8.8	9.2
0.035	1.97	0.035	0.0097	<0.20	36.9	133	32	3.6	0.07	0.28	22.8	18.9
0.039	1.06	0.042	0.0111	<0.12	14.8	107	34	3.6	0.03	0.15	15.7	17.2
0.069	5.35	0.026	0.0108	<0.33	12.0	142	54	1.3	0.06	0.88	5.0	26.7
0.063	5.07	0.023	0.0118	<0.29	11.1	143	46	1.3	0.05	1.09	4.6	19.6
0.057	5.07	0.024	0.0104	<0.27	10.1	138	41	1.3	0.05	1.28	4.3	17.6
0.057	5.10	0.041	0.0100	<0.29	8.1	133	45	1.2	0.05	1.03	4.3	20.2
0.064	4.96	0.038	0.0108	<0.31	8.7	133	50	1.3	0.05	0.77	4.7	22.0
0.078	0.53	0.100	0.0043	<0.20	2.2	117	47	2.6	0.08	0.60	8.2	17.1
0.087	0.50	0.103	0.0055	<0.21	2.0	113	51	2.4	0.04	0.43	9.8	18.9
0.077	0.51	0.112	0.0056	<0.20	1.6	112	49	2.7	0.05	0.58	8.2	14.5
0.051	5.90	0.098	0.0035	<0.27	9.2	160	38	1.2	0.03	0.16	3.3	8.8
0.048	4.30	0.036	0.0028	<0.19	6.4	165	31	1.2	0.04	0.10	2.9	9.0
0.078	2.85	0.029	0.0028	<0.26	1.9	135	45	1.1	0.07	0.11	3.3	14.8
0.065	3.07	0.028	0.0017	<0.20	2.2	139	33	1.1	0.09	0.09	3.2	13.5
0.038	6.89	0.052	0.0041	<0.24	15.1	123	20	0.9	0.14	0.13	3.2	9.4
0.036	3.46	0.032	0.0013	<0.12	2.4	130	16	1.1	0.05	0.13	2.4	10.1
0.051	8.03	0.045	0.0054	<0.31	16.6	155	35	0.9	0.08	1.16	5.9	13.6
0.050	3.77	0.039	0.0023	<0.16	3.1	165	30	1.0	0.06	0.53	4.9	14.2
0.094	4.28	0.039	0.0050	<0.29	5.5	146	56	1.7	0.07	0.26	5.8	19.4
0.084	4.03	0.049	0.0026	<0.24	4.6	139	47	1.7	0.06	0.20	5.2	16.1
0.035	0.65	0.034	0.0024	<0.08	2.0	86	11	3.5	0.04	0.02	15.6	6.8
0.039	6.28	0.034	0.0030	<0.23	13.6	122	19	0.9	0.06	0.14	3.1	9.3
0.602	0.19	0.021	0.0405	<1.60	16.5	603	394	16.0	0.77	3.48	46.4	111.0

Ti	S	Cl	P	Ag	As	B	Ba	Be	Bi	Cd	Co	Cr
%	%	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
0.500	0.19	0.022	0.0425	<1.40	10.7	549	342	12.2	0.38	3.20	36.9	95.9
0.550	0.23	0.022	0.0401	<1.60	13.3	565	353	14.7	0.39	5.58	45.1	106.0
0.733	0.19	0.021	0.0427	<1.70	17.6	663	443	19.6	0.67	4.16	58.3	118.0
0.615	0.34	<0.015	0.0384	<1.50	12.8	507	396	18.0	0.43	3.81	50.4	114.0
0.577	0.35	0.028	0.0420	<1.50	13.9	567	387	18.6	0.45	3.11	52.0	118.0
0.386	0.30	0.053	0.0450	<1.30	6.0	407	294	9.0	0.14	6.70	28.3	72.8
0.522	0.32	0.027	0.0380	<1.50	12.1	464	363	16.2	0.35	4.06	46.3	107.0
0.823	0.30	0.029	0.0557	<2.00	60.4	535	467	20.5	0.49	5.00	68.3	154.0
0.447	0.80	<0.015	0.0752	<2.00	79.2	1110	341	8.8	0.35	6.79	28.7	135.0
0.431	0.66	0.017	0.0711	<2.00	50.5	1020	339	7.9	0.18	4.60	26.5	134.0
0.507	0.70	<0.015	0.0713	<2.00	63.7	1250	391	8.8	0.39	5.96	26.6	146.0
0.009	20.70	0.019	0.0068	<1.60	<0.16	<16	17	<0.8	<0.08	0.08	<1.6	2.3
0.460	0.20	0.023	0.0503	<1.60	12.7	524	333	11.5	0.16	6.99	36.3	91.4
0.013	0.90	0.023	0.0011	0.09	21.6	89	5	3.3	0.03	0.15	7.8	5.5
0.018	0.52	0.107	0.0008	0.04	1.4	118	5	3.0	0.02	0.01	5.3	5.4
0.020	1.35	0.063	0.0029	0.06	6.6	117	10	3.2	0.02	0.09	10.9	4.7
0.025	0.59	0.092	0.0029	<0.06	2.7	132	11	3.1	0.01	0.03	9.0	4.7
0.072	0.96	0.045	0.0080	<0.15	5.7	78	27	3.4	0.04	0.05	11.3	10.6
0.067	0.62	0.086	0.0092	<0.13	3.8	90	25	3.3	0.05	0.04	10.0	10.3
0.042	6.79	0.079	0.0355	<0.22	7.9	91	42	3.6	0.04	0.04	15.5	14.2
0.058	1.01	0.073	0.0447	<0.12	5.1	85	61	4.2	0.04	0.04	14.7	20.0
0.015	1.95	0.047	0.0016	<0.05	7.5	161	6	2.8	0.02	0.16	5.1	3.4
0.016	1.45	0.040	0.0012	<0.05	5.9	170	5	3.1	0.02	0.11	5.1	4.1
0.017	2.40	0.034	0.0022	<0.07	12.6	117	6	3.7	0.02	0.49	13.6	5.7
0.023	1.45	0.067	0.0018	<0.05	7.6	156	7	3.3	0.02	0.17	10.9	5.7
0.024	3.18	0.034	0.0042	<0.12	7.8	147	13	2.9	0.02	7.78	12.7	9.1
0.027	1.52	0.041	0.0031	<0.08	5.2	103	14	3.0	0.03	1.99	12.6	11.2
0.016	1.15	0.048	0.0012	0.08	15.2	101	5	3.2	0.02	0.15	7.1	5.0

Ti	S	Cl	P	Ag	As	B	Ba	Be	Bi	Cd	Co	Cr
%	%	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
0.086	3.18	0.062	0.0079	<0.26	10.0	143	72	3.6	0.28	0.10	10.0	25.7
0.077	3.02	0.074	0.0071	<0.24	8.5	146	46	3.3	0.26	0.09	8.7	21.5
0.063	2.80	0.044	0.0057	0.18	5.7	118	30	3.1	0.20	0.11	11.9	16.9
0.064	2.15	0.053	0.0043	0.17	4.2	126	27	3.2	0.16	0.07	10.3	16.4
0.070	2.54	0.024	0.0051	<0.20	6.7	122	75	2.7	0.08	0.18	14.6	15.7
0.060	2.54	0.047	0.0040	0.20	6.4	122	35	2.8	0.07	0.15	13.6	15.3
0.099	2.72	0.036	0.0084	<0.28	7.5	128	59	3.3	0.30	0.09	11.4	22.4
0.080	2.63	0.055	0.0063	<0.23	7.6	134	47	3.0	0.26	0.10	11.4	20.3
0.082	3.86	0.024	0.0054	0.25	6.1	131	46	3.1	0.07	0.11	6.1	16.5
0.079	4.39	0.033	0.0041	0.19	4.1	147	40	2.8	0.13	0.06	5.0	15.5
0.037	3.73	0.023	0.0017	<0.12	1.6	149	20	3.0	0.04	0.19	3.4	8.9
0.039	3.69	0.028	0.0015	<0.10	1.5	158	20	3.0	0.03	0.09	3.3	8.6
0.062	3.96	0.024	0.0076	<0.32	11.1	149	39	1.9	0.06	0.13	3.3	13.1
0.037	3.15	0.035	0.0035	<0.14	3.6	147	19	2.1	0.04	0.07	2.4	10.8
0.064	3.53	0.034	0.0035	<0.23	2.4	162	47	2.1	0.03	0.15	3.2	13.2
0.064	4.35	0.031	0.0030	<0.20	1.5	162	47	2.0	0.02	0.11	3.0	11.8
0.090	2.28	0.044	0.0080	<0.23	6.9	144	48	3.0	0.21	0.11	10.9	20.0
0.065	3.43	0.030	0.0040	<0.23	2.5	158	48	2.1	0.04	0.14	3.3	12.4
0.049	2.61	0.233	0.0247	<0.14	37.6	144	35	1.5	0.03	0.02	2.8	9.7
0.047	2.18	0.343	0.0302	0.16	32.5	143	31	2.0	0.04	0.02	3.5	15.8
0.027	1.31	0.259	0.0012	<0.06	3.9	145	9	1.6	0.03	0.02	2.0	4.6
0.026	1.33	0.460	0.0015	<0.06	4.5	145	12	1.6	0.03	0.03	2.1	4.6
0.041	1.11	0.253	0.0022	<0.09	3.9	155	21	2.4	0.03	0.03	4.8	8.0
0.045	1.06	0.414	0.0027	<0.09	3.6	162	23	2.2	0.03	0.02	4.5	7.8
0.053	1.08	0.260	0.0029	<0.12	6.2	150	26	3.4	0.03	0.09	11.0	10.2
0.057	1.08	0.524	0.0036	<0.13	6.0	149	28	3.6	0.03	0.12	13.4	11.4
0.127		0.188	0.0105	<0.36	1.3	116	102	3.3	0.07	0.03	11.7	20.3
0.110	0.37	0.135	0.0045	<0.30	0.4	113	72	2.4	0.06	0.02	5.5	14.9

Ti	S	Cl	P	Ag	As	B	Ba	Be	Bi	Cd	Co	Cr
%	%	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
0.086	0.41	0.184	0.0058	<0.25	0.5	108	60	1.9	0.05	0.12	5.4	15.6
0.055			0.0040	<0.18	0.8	97	32	1.8	0.07	0.32	7.4	11.5
0.289	1.03	0.009	0.0092	<0.67	2.8	98	107	3.1	0.17	<0.03	5.8	40.3
0.095	1.43	0.008	0.0042	<0.21	4.7	150	30	2.8	0.08	0.61	5.7	11.4
0.041	1.33	0.007	0.0029	<0.09	5.9	151	11	2.7	0.03	0.35	5.9	8.2
0.048	1.71	0.007	0.0034	<0.11	4.6	151	18	2.8	0.05	0.21	7.3	26.0
0.024	0.69	0.011	0.0016	<0.05	1.3	206	12	3.3	0.02	0.36	9.2	4.1
0.043	0.92	0.009	0.0021	<0.09	0.7	141	21	3.2	0.03	0.01	7.6	6.3
0.061	0.55	0.009	0.0037	<0.14	0.8	130	30	3.1	0.03	0.06	7.1	10.9
0.036	3.32	0.010	0.0124	<0.20	4.0	72	28	4.5	0.06	<0.01	10.0	30.3
0.060	3.31	0.006	0.0077	<0.28	11.7	162	43	2.1	0.05	0.03	3.6	17.0
0.104	2.03	0.007	0.0050	<0.23	1.0	128	33	2.0	0.08	0.01	3.4	16.8
0.243	2.56	0.005	0.0722	<0.54	2.9	88	104	4.2	0.40	0.03	8.4	81.7
0.067	3.77	0.008	0.0189	<0.22	3.9	99	37	2.3	0.06	0.18	8.0	41.8
0.054	2.94	0.045	0.0020	<0.18	1.3	123	39	2.6	0.05	0.18	2.9	12.0
0.058	3.19	0.151	0.0041	<0.18	2.4	125	41	2.5	0.05	0.16	2.8	12.0
0.056	2.74	0.054	0.0028	<0.16	0.8	113	30	3.1	0.07	0.76	2.5	14.3
0.043	2.67	0.062	0.0035	<0.14	1.0	118	25	3.2	0.06	1.52	2.5	13.2
0.037	2.86	0.053	0.0048	<0.18	4.5	92	22	2.9	0.05	0.09	2.7	9.8
0.040	3.08	0.078	0.0031	<0.12	1.5	120	23	3.1	0.04	0.14	2.4	9.4
0.064	2.76	0.059	0.0047	<0.18	2.7	118	37	2.9	0.05	0.04	3.7	13.3
0.064	2.81	0.112	0.0038	<0.17	2.4	122	35	2.7	0.05	0.06	3.5	13.1
0.032	1.27	0.088	0.0033	<0.08	2.7	123	13	1.6	0.03	0.10	2.2	17.8
0.033	1.50	0.153	0.0026	<0.08	2.5	141	14	1.5	0.03	0.19	1.8	15.3
0.039	1.54	0.082	0.0358	<0.13	3.6	119	49	2.7	0.05	1.21	3.4	13.6
0.040	1.62	0.133	0.0428	<0.12	2.8	122	53	2.6	0.04	0.05	3.1	13.0
0.089	2.98	0.068	0.0305	<0.37	55.1	112	86	2.8	0.24	0.16	8.2	23.4
0.084	2.74	0.066	0.0056	<0.25	20.7	156	46	4.0	0.10	0.05	20.2	22.7

Ti	S	Cl	P	Ag	As	B	Ba	Be	Bi	Cd	Co	Cr
%	%	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
0.347	3.56	0.026	0.0205	<1.20	13.1	120	243	2.3	0.35	0.49	17.4	103.0
0.110	5.74	0.059	0.0145	<0.46	10.5	106	58	1.6	0.11	0.78	17.2	62.0
0.045	3.37	0.040	0.0061	<0.24	76.4	128	21	2.8	0.07	0.03	4.7	8.9
0.045	4.69	0.086	0.0044	<0.16	3.6	102	7	1.8	0.07	0.12	5.2	12.4
0.045	4.66	0.062	0.0048	<0.23	8.0	116	17	2.2	0.05	0.11	2.7	10.9
0.039	4.14	0.097	0.0030	<0.14	4.3	112	14	2.0	0.03	0.05	2.1	9.3
0.056	3.77	0.063	0.0048	<0.20	2.6	134	26	2.2	0.06	0.10	2.9	11.8
0.053	2.59	0.142	0.0040	<0.15	2.0	125	24	2.3	0.04	0.03	2.6	11.9
0.053	4.52	0.066	0.0065	<0.21	5.2	128	21	2.7	0.05	0.36	4.9	18.4
0.045	4.33	0.124	0.0046	<0.16	3.8	123	17	2.7	0.05	0.13	5.1	18.0
0.061	6.29	0.018	0.0095	<0.37	94.3	117	40	3.4	0.05	0.08	7.3	12.6
0.068	3.31	0.051	0.0057	<0.23	30.5	147	44	4.0	0.05	0.04	7.4	13.9
0.034	2.86	0.024	0.0040	<0.13	34.1	150	22	4.0	0.05	0.02	8.9	8.2
0.034	2.52	0.087	0.0044	<0.13	20.9	173	23	4.2	0.04	0.02	8.5	8.7
0.079	2.98	0.023	0.0058	<0.25	21.8	153	45	4.0	0.09	0.05	21.3	21.9
0.063	2.04	0.102	0.0305	<0.20	12.6	128	58	2.9	0.15	0.11	6.2	17.5
0.062	2.67	0.036	0.0044	<0.23	9.5	125	32	3.0	0.05	0.05	6.9	14.7
0.058	3.16	0.142	0.0037	<0.21	7.8	121	29	3.4	0.05	0.05	7.4	16.8
0.126	6.74	0.049	0.0096	<0.45	8.7	84	23	1.6	0.10	0.10	6.5	15.6
0.046	2.76	0.159	0.0036	<0.17	21.7	148	20	3.0	0.06	0.02	3.6	9.7
0.032	2.30	0.043	0.0050	<0.16	9.9	121	20	3.2	0.12	0.07	5.7	10.8
0.033	2.36	0.113	0.0038	<0.14	12.3	131	19	3.1	0.10	0.08	4.9	10.1
0.059	3.75	0.040	0.0040	<0.20	14.1	132	34	2.7	0.06	3.28	10.8	19.4
0.053	2.45	0.158	0.0024	<0.17	14.5	114	28	2.3	0.06	0.42	9.4	17.6
0.048	3.89	0.022	0.0042	<0.22	33.3	187	28	3.8	0.06	0.06	8.6	12.1
0.044	4.69	0.087	0.0039	<0.19	35.7	181	26	3.7	0.05	0.14	8.5	10.5
0.052	3.10	0.021	0.0028	0.08	5.9		26	1.8	0.05	0.38	3.8	13.0
0.086	4.10	0.220	0.0073	0.13	5.3		1612	3.6	0.07	0.48	3.8	21.9

Ti	S	Cl	P	Ag	As	B	Ba	Be	Bi	Cd	Co	Cr
%	%	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
0.359	1.00	0.044	0.2094	0.52	17.4		442	4.2	0.41	0.17	25.2	100.2
0.044	1.16	0.153	0.0021	0.09	11.7		21	1.1	0.05	0.18	2.0	18.4
0.039	6.15	0.248	0.0050	0.05	10.2		29	0.4	0.03	0.17	1.6	6.2
0.059	9.80	0.195	0.0070	0.12	29.8		49	0.9	0.06	0.18	8.7	13.2
0.324	2.64	0.059	0.3519	3.48	36.2		276	3.3	0.53	82.20	20.1	462.2
0.081	4.28	0.192	0.0104	0.20	5.6		79	3.8	0.07	0.27	5.6	21.9
0.051	8.92	0.218	0.0100	0.12	51.8		101	1.6	0.06	0.14	4.9	14.0
0.045	2.56	0.263	0.0076	0.09	7.3		19	0.8	0.10	0.04	2.9	10.9
0.063	3.07	0.249	0.0048	0.15	31.0		38	1.1	0.13	0.14	7.7	15.2
0.066	2.91	0.251	0.0020	0.11	4.0		91	1.0	0.06	0.13	2.8	15.2
0.048	6.49	0.241	0.0032	0.07	7.9		21	0.8	0.04	0.15	3.1	16.6
0.064	5.82	0.226	0.0065	0.10	14.9		43	1.3	0.05	0.17	5.8	22.7
0.302	6.24	0.045	0.1167	1.77	43.3		293	2.8	0.59	34.56	19.1	286.3
0.060	4.19	0.177	0.0037	0.14	5.0		24	5.7	0.07	0.95	9.2	14.6
0.311	8.11	0.039	0.2825	1.15	61.4		283	3.6	0.56	1.41	20.1	158.5
0.272	3.67	0.040	1.6422	4.66	69.5		258	3.3	0.53	65.21	20.1	389.5
0.298	2.97	0.066	0.1037	2.64	50.8		262	3.8	0.38	32.53	21.3	210.3
0.071	2.74	0.225	0.0031	0.09	2.3		46	1.3	0.07	2.06	3.2	15.1
0.043	9.24	0.226	0.0032	0.03	12.3		458	1.0	0.04	0.24	2.4	8.0
0.066	5.26	0.221	0.0107	0.07	13.3		40	1.6	0.05	0.80	5.0	13.1
0.283	3.56	0.046	0.1236	1.95	35.4		389	3.1	0.49	64.00	19.0	346.4
0.076	4.34	0.178	0.0175	0.50	58.9		45	5.7	0.12	0.74	16.6	53.9
0.359	5.12	0.032	0.0906	1.69	82.5		404	3.6	0.82	20.19	25.0	201.5
0.045	4.53	0.226	0.0288	0.22	6.2		23	1.4	0.08	0.22	2.7	54.8
0.041	3.17	0.231	0.0016	0.06	1.7		19	1.5	0.05	0.08	1.9	8.3
0.101	3.14	0.207	0.0190	0.17	9.6		70	3.3	0.12	0.07	7.6	29.5
0.070	4.22	0.212	0.0060	0.16	8.2		108	2.7	0.08	3.08	4.8	29.8

Ti %	S %	Cl %	P %	Ag ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Cd ppm	Co ppm	Cr ppm
0.053	1.41	0.110	0.0046	0.17	9.7	26	55	1.9	0.10	0.03	3.4	8.3
0.064	22.80	0.082	0.0327	<0.71	491.3	161	54	1.2	0.14	0.25	12.1	115.0
0.056	1.32	0.111	0.0046	0.21	12.5	29	59	2.2	0.09	0.04	4.0	7.3
0.034	1.45	0.131	0.0026	0.09	4.5	16	32	1.2	0.04	0.02	2.0	4.1
0.068	1.36	0.117	0.0070	0.16	11.0	34	70	2.5	0.07	0.03	4.5	8.7
0.043	1.12	0.161	0.0061	0.14	4.5	21	58	1.4	0.07	0.03	2.7	6.2
0.036	1.04	0.133	0.0042	0.08	5.2	18	41	0.9	0.05	0.02	1.8	3.5
0.048	0.96	0.129	0.0063	0.16	5.4	26	67	1.4	0.06	0.03	2.7	5.5
0.037	3.00	0.116	0.0027	<0.11	20.4	23	37	1.5	0.06	0.04	3.2	5.4
0.057	4.37	0.098	0.0041	<0.16	19.9	29	50	3.4	0.08	0.06	5.4	10.4
0.007	2.20	0.136	0.0010	<0.04	9.2	20	21	1.0	0.03	0.02	1.3	1.3
0.009	0.74	0.091	0.0015	0.04	0.9	22	44	0.5	0.04	0.01	1.2	1.5
0.029	0.74	0.116	0.0021	0.07	0.5	13	37	0.9	0.04	0.01	1.8	2.8
0.101	0.83	0.098	0.0057	0.20	1.1	15	51	2.0	0.10	0.03	4.3	10.1
0.057	1.00	0.109	0.0037	0.27	0.9	10	29	1.6	0.07	0.03	3.7	6.5
0.067	22.40	0.059	0.0307	<0.70	473.9	171	55	1.1	0.08	0.21	12.6	8.4
0.037	2.82	0.101	0.0027	<0.09	16.5	21	35	1.4	0.05	0.04	2.7	4.5
0.956	0.07	0.019	0.0741	<2.00	114.7	429	997	30.9	0.51	0.27	56.8	147.6
0.907	0.14	0.019	0.0662	<1.78	77.1	274	909	28.1	0.89	0.33	50.6	123.0
0.895	0.15	0.021	0.0615	<1.76	89.7	246	905	29.1	2.20	0.36	51.5	130.1
0.799	0.17	0.017	0.0583	<1.66	85.1	235	824	27.8	1.25	0.36	48.3	120.1
0.783	0.16	0.018	0.0572	<1.74	75.9	196	801	27.9	1.31	0.31	51.0	125.6
0.901	0.13	0.015	0.0580	<1.77	75.5	197	903	27.5	0.89	0.32	49.8	120.4
0.844	0.13	0.021	0.0577	<1.76	69.3	186	822	27.2	0.80	0.28	50.7	120.7
0.748	0.17	0.017	0.0545	<1.66	69.0	181	755	24.4	0.76	0.33	46.1	107.3

Ti	S	Cl	P	Ag	As	B	Ba	Be	Bi	Cd	Co	Cr
%	%	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
0.825	0.16	0.018	0.0564	<1.72	68.3	179	823	25.4	0.75	0.29	46.8	112.8
1.070	0.46	0.018	0.1405	<1.78	482.2	408	1197	47.2	4.38	1.79	87.8	242.9
1.057	0.52	<0.015	0.1349	<1.76	484.2	390	1191	46.6	4.67	1.76	89.1	224.0
1.070	0.59	0.017	0.1678	<1.78	686.7	463	1277	52.0	6.07	2.32	101.8	235.8
0.953	0.57	0.018	0.1545	<1.76	562.2	419	1132	49.5	5.48	13.70	93.7	238.7
0.986	1.16	0.022	0.2498	<1.73	1428.9	508	1550	52.8	8.49	3.81	124.7	278.9
1.023	0.76	0.017	0.1866	<1.71	740.4	470	1255	50.1	6.49	2.39	102.5	265.6
0.909	0.09	0.019	0.0621	<1.89	17.8	180	846	25.1	0.56	<0.10	45.9	121.3
0.748	0.17	0.016	0.0510	<1.66	79.1	163	760	26.3	0.92	0.33	48.7	113.3
1.122	0.60	0.015	0.1676	<1.78	673.5	460	1365	51.0	5.71	2.23	100.8	254.2
0.107	0.63	0.034	0.0261	<0.49	73.3	20	132	2.9	0.18	0.38	6.5	37.7
0.110	0.64	0.020	0.0273	<0.49	79.1	16	136	2.9	0.19	0.43	6.4	37.2
0.071	1.13	0.023	0.0126	<0.14	5.2	13	171	1.1	0.09	0.04	3.3	17.5
0.102	3.73	0.093	0.0087	<0.28	46.0	4	43	1.7	0.17	0.10	5.8	26.1
0.221	3.47	0.082	0.0205	<0.47	34.1	11	125	1.9	0.29	0.18	8.8	45.0
0.619	5.12	0.025	0.0506	<1.20	82.6	31	336	3.1	0.63	0.36	20.1	91.5
0.936	3.36	0.016	0.0934	<1.60	36.1	40	551	3.9	0.75	0.33	28.9	110.0
0.257	3.37	0.065	0.0188	<0.51	32.6	12	139	2.0	0.27	0.16	8.7	42.7
0.086	4.89	0.016	0.0184	<0.33	33.3	<3	97	2.7	0.09	0.08	9.5	19.8
0.051	1.01	0.019	0.0040	<0.14	2.4	16	37	0.9	0.08	0.06	3.8	11.2
0.170	3.40	<0.015	0.0525	<0.56	26.7	21	189	1.9	0.30	0.17	9.5	42.3
0.103	0.86	0.048	0.0158	<0.26	15.5	6	81	1.7	0.12	0.09	8.5	27.3
0.154	3.49	0.036	0.0372	<0.50	28.6	8	128	2.6	0.12	0.12	12.7	32.9
0.106	1.03	0.019	0.0125	<0.30	4.8	16	79	1.3	0.12	0.09	6.3	22.4
0.243	2.23	<0.015	0.0475	<0.78	17.2	35	244	2.2	0.33	0.20	13.5	55.8
0.064	2.04	0.114	0.0068	<0.17	50.6	6	25	1.0	0.09	0.10	6.3	15.7
0.121	2.87	0.082	0.0372	<0.35	20.9	6	90	1.7	0.14	0.22	7.1	28.4
0.165	3.25	0.076	0.0113	<0.38	35.2	6	94	1.9	0.19	0.13	7.2	36.7

Ti	S	Cl	P	Ag	As	B	Ba	Be	Bi	Cd	Co	Cr
%	%	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
0.472	5.13	0.031	0.0753	<1.50	113.0	43	387	2.4	0.49	0.26	21.3	80.2
0.272	2.10	0.085	0.2630	<0.86	80.0	22	591	3.7	0.44	0.33	22.9	58.6
0.093	4.91	<0.015	0.0274	<0.24	11.0	6	73	1.6	0.13	0.09	5.1	25.8
0.284	2.85	<0.015	0.1150	<0.39	32.4	189	205	1.6	0.38	0.35	8.5	30.0
0.029	2.48	0.017	0.0037	<0.08	0.3	3	65	0.4	0.06	0.01	2.2	6.1
0.116	2.44	0.149	0.0277	<0.29	22.7	17	248	2.0	0.15	0.17	5.9	20.9
0.184	2.78	0.135	0.0484	<0.40	27.1	18	279	2.1	0.23	0.14	9.0	27.7
0.378	3.43	0.043	0.0583	<1.20	39.4	39	1250	3.3	0.52	0.39	21.8	71.1
0.212	2.23	0.101	0.0384	<0.62	16.2	29	865	2.4	0.28	0.24	10.5	42.5
0.071	1.06	0.145	0.0247	<0.19	13.3	11	162	3.0	0.09	0.06	3.4	20.0
0.058	2.00	0.092	0.0049	<0.19	16.2	56	51	1.3	0.11	0.11	3.5	12.8
0.224	1.40	0.055	0.0316	<0.61	16.2	59	186	1.4	0.35	0.19	9.2	38.9
0.233	1.37	0.054	0.0237	<0.64	12.7	63	181	1.6	0.38	0.20	8.5	43.0
0.066	1.57	0.067	0.0114	<0.19	7.0	58	56	1.1	0.13	0.11	4.5	15.2
0.592	1.82	<0.015	0.0552	<1.60	40.4	63	550	2.6	0.88	0.42	19.1	87.6
0.080	1.63	0.095	0.0356	<0.19	26.0	86	140	1.4	0.26	0.08	3.0	13.7
0.030	0.70	<0.015	0.0061	<0.08	1.7	37	28	1.0	0.08	0.05	7.5	6.3
0.075	2.24	0.122	0.0200	<0.16	54.5	31	74	2.4	0.12	0.06	4.5	12.5
0.043	0.95	0.192	0.0050	<0.16	3.8	14	57	2.1	0.16	0.11	11.2	17.3
0.037	0.58	0.203	0.0030	<0.11	0.9	6	70	1.0	0.04	0.02	9.1	8.0
0.127	1.27	0.099	0.1080	<0.23	19.4	55	311	1.4	0.13	0.10	6.9	18.6
0.103	0.94	0.188	0.0887	<0.19	2.1	43	249	1.1	0.21	0.08	4.9	14.6
0.019	0.76	0.047	0.0012	0.08	1.4	16	20	1.7	0.14	0.03	4.6	4.6
0.030	2.54	0.024	0.0193	<0.14	72.0	42	74	0.8	0.12	0.09	3.3	7.0
0.030	1.12	0.051	0.0216	<0.07	1.7	34	60	1.5	0.09	0.09	9.8	9.3
0.092		0.020	0.0064	<0.17	6.4	38	131	0.9	0.13	0.10	6.5	14.6
0.125		0.083	0.0018	<0.11	2.1	9	37	2.1	0.22	0.05	5.8	15.3
0.113		0.068	0.0077	<0.12	1.9	10	56	1.2	0.21	0.08	7.6	20.3

Ti	S	Cl	P	Ag	As	B	Ba	Be	Bi	Cd	Co	Cr
%	%	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
0.078		0.116	0.0017	0.07	1.1	7	35	0.9	0.11	0.03	6.9	10.3
0.079		0.082	0.0031	<0.12	2.5	8	67	3.8	0.13	0.08	7.0	16.1
0.169		0.080	0.0413	<0.26	38.7	28	142	1.7	0.33	0.11	9.2	30.7
0.220		0.057	0.0053	0.20	5.2	22	133	2.0	0.27	0.08	8.7	28.2
0.169		0.087	0.0215	<0.24	11.4	24	146	1.7	0.24	0.10	9.7	27.0
0.056		0.048	0.0036	<0.14	27.5	16	142	4.3	0.08	0.10	8.1	13.3
0.223		0.064	0.0075	<0.29	18.1	28	209	2.0	0.25	0.10	10.8	32.6
0.184		0.089	0.0029	<0.22	26.7	36	142	2.2	0.26	0.09	10.5	28.3
0.102		0.059	0.0027	<0.13	3.4	32	74	1.0	0.17	0.04	6.9	16.0
0.111		0.074	0.0040	<0.19	46.4	23	76	1.3	0.13	0.09	10.7	23.7
0.199		0.029	0.0066	<0.31	4.1	18	486	2.7	0.19	0.08	9.0	34.4
0.081		0.113	0.0009	0.14	0.6	3	68	5.6	0.21	0.03	7.7	8.0
0.256		0.055	0.0072	0.36	2.0	31	196	2.4	0.31	0.05	7.9	40.7
0.037		0.118	0.0186	0.06	1.8	12	59	1.1	0.06	0.07	7.6	10.6
0.148		0.092	0.0023	0.12	2.0	7	50	1.4	0.24	0.04	6.5	17.4
0.135		0.110	0.0012	0.11	0.8	7	52	1.5	0.20	0.01	7.2	20.8
0.135		0.155	0.0020	0.12	2.4	11	89	9.0	0.25	0.02	9.1	18.8
0.209		0.061	0.0029	0.19	8.5	36	45	5.4	0.23	0.07	16.6	26.5
0.043		0.148	0.0014	<0.08	1.4	47	49	5.3	0.10	0.10	14.2	10.9
0.234		0.061	0.0073	<0.28	4.4	23	138	1.6	0.25	0.08	10.6	35.4
0.278		0.077	0.0068	<0.39	2.4	27	260	2.6	0.34	0.12	10.9	51.1
0.091		0.114	0.0014	<0.08	7.3	22	56	0.6	0.12	0.04	4.8	14.7
0.122		0.104	0.0026	0.13	0.6	4	70	2.5	0.25	0.03	8.2	20.2
0.052		0.139	0.0008	0.06	24.5	9	69	3.0	0.18	0.05	7.8	11.6
0.040		0.164	0.0048	0.06	6.0	10	71	3.0	0.10	0.08	7.4	8.2
0.197		0.034	0.0063	0.21	5.4	33	89	3.2	0.23	0.03	7.7	27.3
0.231		0.029	0.0067	<0.26	8.0	29	125	4.5	0.28	0.10	18.9	46.3
0.146		0.056	0.0035	0.15	9.4	31	53	1.4	0.20	0.05	9.2	29.6

Ti	S	Cl	P	Ag	As	B	Ba	Be	Bi	Cd	Co	Cr
%	%	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
0.051		0.029	0.0382	0.09	7.4	23	132	0.5	0.07	0.04	3.5	10.0
0.193		0.037	0.0514	0.26	8.9	<5	872	2.1	0.23	0.13	10.1	40.0
0.095		0.167	0.0217	<0.16	34.1	25	66	1.0	0.12	0.06	6.5	22.8
0.281		0.040	0.0360	0.32	0.7	9	155	1.2	0.41	0.17	6.3	38.7
0.220		0.024	<0.0040	0.27	1.6	15	115	6.0	0.37	0.03	10.5	47.7
0.153		0.086	0.0217	0.20	3.6	14	88	1.5	0.28	0.03	8.7	27.7
0.062		0.076	0.0029	0.08	0.5	2	67	1.0	0.11	0.02	3.4	11.8
0.064		0.183	0.0025	0.09	7.0	20	74	1.3	0.18	0.03	3.4	12.1
0.118		0.060	0.0022	<0.2	15.2	19	348	1.5	0.24	0.07	9.4	23.0
0.173		0.090	<0.0040	0.22	2.4	21	105	1.6	0.24	0.05	7.6	31.3
0.132		0.147	0.0037	0.16	1.5	8	96	1.3	0.25	0.05	6.6	20.9
0.154		0.026	0.0421	0.22	3.9	31	296	1.5	0.14	0.10	8.9	39.6
0.109		0.015	0.0027	0.27	5.0	28	157	0.8	0.16	0.05	6.8	21.7
0.092		0.024	0.0080	0.14	4.1	27	95	0.9	0.13	0.05	4.5	19.4
0.079		0.038	0.0105	0.13	15.2	46	68	0.7	0.11	0.06	5.9	16.4
0.075		0.037	0.0128	<0.12	26.1	42	106	1.1	0.09	0.05	5.6	15.4
0.030		0.025	0.0053	<0.06	15.0	22	142	0.5	0.04	0.03	2.8	6.4
0.271		0.025	0.1022	<0.37	2.9	10	503	1.5	0.32	0.12	10.7	51.8
0.057		0.093	0.0113	0.08	7.0	2	62	1.6	0.08	0.08	13.7	11.7
0.118		0.045	0.0338	0.18	34.8	<3	165	1.4	0.18	0.11	11.2	25.4
0.106		0.149	0.0666	0.18	22.4	9	148	1.1	0.18	0.08	5.8	25.1
0.053		0.179	0.0225	<0.14	37.2	7	47	1.2	0.08	0.08	9.8	15.0
0.061		0.179	0.0023	<0.09	8.8	17	73	1.3	0.18	0.03	3.2	11.3
0.130		0.136	0.0258	0.17	1.6	<3	129	2.0	0.27	0.13	10.6	26.4
0.035		0.105	0.0009	0.05	1.3	1	41	1.4	0.09	0.02	3.3	5.9
0.058		0.102	0.0022	<0.10	2.8	2	85	2.5	0.11	0.06	9.2	15.3
0.151		0.091	0.0015	0.28	5.3	8	96	4.5	0.28	0.06	9.2	26.9
0.170		0.051	<0.0050	<0.26	24.9	<5	187	8.6	0.28	0.18	13.3	33.9

Ti	S	Cl	P	Ag	As	B	Ba	Be	Bi	Cd	Co	Cr
%	%	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
0.106		0.079	<0.0030	<0.15	12.2	4	104	1.4	0.13	0.06	6.7	21.9
0.053		0.122	<0.0010	0.06	1.6	4	51	1.2	0.06	0.01	5.4	9.9
0.038		0.142	<0.0010	0.05	0.7	3	25	0.8	0.06	0.03	8.4	7.0
0.181		0.052	<0.0050	0.25	9.8	7	160	6.6	0.24	0.08	9.4	36.3
0.203		0.093	0.0182	0.22	1.4	15	159	1.8	0.28	0.06	10.0	37.2
0.172		0.098	0.0329	0.20	1.1	10	472	1.4	0.30	0.11	5.5	34.4
0.189		0.073	0.0047	<0.24	3.8	<5	168	2.0	0.21	0.06	10.2	33.4
0.127		0.102	<0.0040	<0.19	3.0	34	107	0.8	0.22	0.05	5.6	21.5
0.057		0.126	0.0055	0.07	7.0	31	270	0.5	0.16	0.03	4.1	13.5
0.092		0.091	0.0113	0.11	1.9	25	246	0.7	0.14	0.05	4.4	12.7
0.055		0.150	0.0031	<0.09	4.6	21	124	1.0	0.11	0.04	7.5	14.3
0.089		0.129	0.0231	0.13	4.7	24	214	1.0	0.23	0.06	6.9	21.1
0.091		0.066	0.0023	0.11	4.9	8	181	1.7	0.24	0.20	11.6	20.7
0.031		0.176	0.0009	0.07	7.3	20	33	0.2	0.09	0.03	2.8	5.3
0.033		0.153	0.0005	0.05	0.7	1	40	9.5	0.11	0.02	3.1	5.6
0.113		0.113	<0.0010	0.14	0.8	3	38	2.0	0.20	0.03	7.3	17.6
0.193		0.061	<0.0050	0.27	9.4	<5	174	7.1	0.23	0.06	10.4	39.9
0.132		0.077	0.0043	<0.22	3.0	33	39	1.6	0.24	0.05	6.5	18.7
0.186		0.095	0.0029	<0.33	2.4	32	56	2.1	0.26	0.07	7.3	26.7
0.145		0.073	0.0028	<0.21	1.7	39	39	1.5	0.15	0.04	9.0	19.7
0.383		0.027	0.0049	<0.76	5.2	41	237	2.4	0.22	0.06	9.6	39.5
0.173		0.074	0.0021	<0.32	5.9	39	65	2.1	0.22	0.04	7.9	25.6
0.109		0.100	0.0035	<0.23	1.1	39	41	5.6	0.16	0.03	17.1	21.3
0.120		0.088	0.0036	<0.24	5.7	40	62	2.3	0.12	0.05	12.7	22.7
0.237		0.058	0.0029	<0.66	3.7	42	146	2.3	0.16	0.04	9.9	35.2
0.142		0.117	0.0037	<0.34	2.4	45	93	2.1	0.27	0.05	11.0	25.2
0.217		0.073	0.0069	<0.46	8.4	35	122	2.6	0.36	0.08	9.9	31.6
0.151		0.076	0.0012	<0.28	2.3	21	88	1.1	0.21	0.05	7.7	27.7

Ti	S	Cl	P	Ag	As	B	Ba	Be	Bi	Cd	Co	Cr
%	%	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
0.172		0.070	0.0156	<0.48	2.3	25	161	1.3	0.13	0.04	8.3	27.7
0.133		0.131	0.0048	<0.23	1.6	15	58	1.0	0.17	0.02	6.7	14.8
0.242		0.064	0.0025	<0.58	3.4	28	170	1.9	0.18	0.06	10.8	39.5
0.131		0.093	0.0014	<0.32	2.0	21	92	2.5	0.10	0.05	5.1	20.1
0.037		0.130	0.0004	<0.10	1.3	11	31	7.6	0.05	0.01	12.4	8.7
0.133		0.071	0.0020	<0.47	10.3	29	177	1.9	0.16	0.08	12.4	28.2
0.162		0.072	0.0016	<0.36	4.2	22	168	1.7	0.20	0.09	9.9	25.2
0.086		0.074	0.0007	<0.16	1.2	13	74	1.4	0.10	0.04	11.4	7.3
0.101		0.093	0.0017	<0.26	2.5	24	111	1.8	0.07	0.07	8.9	17.2
0.065		0.128	0.0021	<0.14	1.4	11	53	3.3	0.12	0.04	5.4	11.2
0.054		0.128	0.0015	<0.14	1.3	15	48	5.6	0.09	0.03	9.4	10.9
0.210		0.091	0.0028	<0.64	2.1	27	211	5.6	0.27	0.07	14.9	43.9
0.363		0.017	0.0038	<0.87	5.9	28	229	3.6	0.20	0.10	14.1	55.7
0.093		0.093	0.0009	<0.21	4.1	16	47	1.3	0.14	0.04	6.3	18.7
0.264		0.034	0.0028	<0.63	8.8	28	167	3.2	0.14	0.08	7.8	41.0
0.266		0.167	0.0046	<0.53	3.5	30	205	4.4	0.24	0.11	17.1	46.7
0.145		0.170	0.0037	<0.29	8.5	29	93	2.2	0.19	0.05	9.9	24.4
0.315		0.088	0.0096	<0.44	12.2	15	55	3.5	0.35	0.07	12.3	39.4
0.235		0.111	0.0655	<0.47	33.5	29	101	2.1	0.16	0.06	9.5	40.2
0.130		0.090	0.0034	<0.31	2.2	20	90	3.4	0.11	0.05	5.8	22.2
0.182		0.069	0.0016	<0.36	4.2	22	166	2.3	0.18	0.08	10.9	27.7
0.094	1.58	0.156	0.0043	<0.20	15.4	21	78	5.2	0.15	0.09	13.9	14.0
0.103	0.96	0.175	0.0102	<0.22	8.6	30	138	2.2	0.12	0.09	7.2	18.7
0.034	1.66	0.184	0.0025	<0.13	44.4	32	55	3.0	0.06	0.03	3.3	5.3
0.039	0.87	0.156	0.0029	0.12	2.1	10	72	19.6	0.12	0.07	4.4	6.9
0.022	0.76	0.184	0.0015	<0.07	2.4	10	42	3.6	0.06	0.05	14.4	4.8
0.061	2.56	0.085	0.0055	<0.23	58.9	16	77	2.9	0.11	0.09	7.4	20.3
0.096	0.89	0.138	0.0050	<0.17	0.8	40	31	1.3	0.14	0.05	8.1	20.2

Ti	S	Cl	P	Ag	As	B	Ba	Be	Bi	Cd	Co	Cr
%	%	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
0.174	0.98	0.154	0.0079	<0.51	11.5	28	230	2.8	0.46	0.22	10.3	34.2
0.076	0.88	0.209	0.0055	<0.23	7.7	18	77	1.8	0.27	0.08	5.1	15.2
0.137	5.23	0.084	0.0073	<0.37	13.0	48	66	2.8	0.51	0.13	7.7	21.5
0.131	0.82	0.085	0.0035	0.33	1.5	21	40	3.9	0.31	0.03	10.5	24.3
0.154	0.64	0.204	0.0041	<0.34	2.9	42	93	1.7	0.20	0.04	8.7	24.2
0.401	0.54	0.074	0.1000	0.90	2.2	<6	415	5.4	0.55	0.15	8.7	66.9
0.109	2.60	0.178	0.0046	0.23	34.7	28	108	3.5	0.12	0.03	2.8	14.4
0.096	1.77	0.185	0.0094	<0.29	13.7	26	116	3.6	0.24	0.14	5.4	17.0
0.200	0.77	0.043	0.0690	0.58	3.5	23	126	2.3	0.33	0.13	8.9	41.4
0.084	4.00	0.097	0.1150	<0.34	59.8	56	125	1.4	0.13	0.17	7.0	31.9
0.199	4.14	0.082	0.0088	0.51	17.7	42	169	3.4	0.24	0.47	14.8	85.6
0.071	3.32	0.081	0.0210	<0.22	5.8	31	72	1.8	0.08	0.05	3.5	13.5
0.241	0.87	0.024	0.0069	<0.48	5.4	24	147	5.5	0.19	0.08	10.2	33.6
0.117	3.31	0.041	0.0376	<0.32	17.2	55	124	1.2	0.12	0.10	5.9	20.1
0.073	4.01	0.048	0.0078	<0.26	3.2	34	54	1.5	0.12	0.11	3.8	15.6
0.066	3.86	0.090	0.0106	<0.21	4.4	69	98	0.7	0.16	0.08	3.1	12.5
0.038	3.88	0.036	0.0090	<0.17	26.3	103	127	0.7	0.10	0.04	1.8	7.6
0.122	1.25	0.105	0.0070	0.46	26.2	31	56	1.1	0.23	0.10	11.2	28.4
0.251	1.79	0.087	0.0061	0.51	25.1	33	88	3.0	0.47	0.13	18.7	50.8
0.217	0.71	0.074	0.0042	<0.47	1.6	16	132	4.4	0.35	0.06	9.1	37.6
0.094	0.74	0.156	0.0025	<0.19	3.1	11	69	1.6	0.17	0.08	5.7	13.8
0.110	0.98	0.144	0.0023	0.22	10.3	13	71	4.1	0.20	0.08	8.8	15.2
0.072	0.65	0.131	0.0026	0.14	2.5	9	37	3.8	0.12	0.01	6.0	8.6
0.113	1.09	0.083	0.0047	<0.36	24.9	16	139	1.5	0.12	0.07	11.5	24.7
0.064	0.59	0.159	0.0012	0.12	1.1	7	59	3.7	0.17	0.02	6.3	8.9
0.119	0.76	0.094	0.0047	0.22	0.7	24	73	1.6	0.19	0.03	8.1	21.5
0.058	3.15	0.073	0.0042	<0.19	13.1		156	0.5	0.11	0.05	3.0	10.8
0.179	1.45	0.100	0.0058	<0.50	13.1		122	3.8	0.16	0.11	11.6	37.5

Ti	S	Cl	P	Ag	As	B	Ba	Be	Bi	Cd	Co	Cr
%	%	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
0.077	0.80	0.138	0.0032	0.38	3.9		43	11.2	0.12	0.12	10.7	25.9
0.045	1.09	0.121	0.0027	0.29	4.8		29	25.4	0.10	0.15	22.1	18.6
0.097	4.94	0.092	0.0385	0.41	122.0		147	3.3	0.19	0.35	10.9	58.6
0.057	1.00	0.244	0.0121	0.33	23.5		52	3.7	0.14	0.16	18.2	24.1
0.210	0.37	0.167	0.0058	<0.78	3.1		155	2.0	0.13	0.09	18.8	43.9
0.042	0.50	0.271	0.0056	<0.16	2.0		60	1.1	0.06	0.06	9.1	13.3
0.228	4.08	0.105	0.0695	0.72	68.0		343	2.2	0.40	0.26	81.0	54.5
0.439	0.74	0.064	0.0346	0.91	3.6		187	2.7	0.39	0.09	16.2	61.5
0.050	8.09	0.028	0.0326	<0.35	242.4		40	3.4	0.06	0.14	3.9	13.6
0.244	7.88	0.012	0.0070	<0.97	232.3		154	7.6	0.24	0.19	17.3	50.1
0.410	2.73	0.078	0.0039	0.66	30.7		56	5.9	0.55	0.26	17.5	62.0
0.077	1.04	0.186	0.0051	<0.22	5.2		45	9.0	0.27	0.25	16.9	31.8
0.137	4.49	0.125	0.0077	<0.56	68.6		128	3.1	0.57	0.16	13.4	40.8
0.077	16.80	0.064	0.0067	<0.64	1351.2		32	2.2	0.12	0.20	9.1	22.6
0.092	3.27	0.033	0.0028	<0.37	4.1		84	0.8	0.09	0.10	4.9	19.0
0.091	4.73	0.024	0.0180	<0.34	7.6		101	1.2	0.09	0.06	6.2	20.6
0.120	4.72	0.028	0.0088	<0.44	37.1		113	1.5	0.10	0.07	6.3	26.2
0.081	3.89	0.036	0.0020	<0.28	4.7		76	0.8	0.08	0.07	4.1	22.5
0.076	1.99	0.093	0.0077	<0.19	6.3		81	0.7	0.13	0.02	2.8	14.6
0.050	2.09	0.055	0.0069	<0.15	5.7		91	0.5	0.10	0.04	2.7	11.4
0.058	3.37	0.072	0.0043	<0.19	12.8		155	0.5	0.11	0.05	3.1	11.2
0.196	4.67	0.055	0.0524	0.55	37.2		157	1.4	0.29	0.28	25.5	42.3
0.100	3.69	0.062	0.0126	<0.34	35.1		67	1.7	0.14	0.18	12.5	37.3
0.403	2.67	0.062	0.0221	0.86	20.3		242	1.7	0.43	0.21	14.7	65.3
0.014	0.72	0.135	0.0014	<0.08	2.4		52	2.8	0.04	0.03	22.4	8.3
0.148	0.62	0.064	0.0048	<0.31	0.8		57	1.0	0.17	0.04	7.4	27.8
0.105	0.87	0.059	0.0025	<0.26	0.8		68	0.6	0.13	0.13	4.8	23.9
0.061	0.86	0.115	0.0018	<0.15	2.8		27	1.4	0.11	0.03	4.0	10.4

Ti	S	Cl	P	Ag	As	B	Ba	Be	Bi	Cd	Co	Cr
%	%	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
0.020	0.96	0.141	0.0010	0.09	1.3		21	2.6	0.04	0.04	7.6	8.7
0.222	0.51	0.022	0.0055	<0.63	1.0		151	7.2	0.15	<.0.03	11.0	45.2
0.093	0.89	0.096	0.0056	<0.28	2.4		94	5.1	0.11	0.09	10.5	24.9
0.319	0.33	0.016	0.0074	<0.89	1.3		304	1.9	0.22	<.0.05	12.3	62.2
0.025	0.65	0.162	0.0015	<0.19	1.6		34	0.7	0.08	0.04	7.8	9.5
0.115	0.57	0.126	0.0032	0.23	1.1		43	5.0	0.18	0.04	14.1	25.4
0.056	0.68	0.069	0.0033	<0.16	5.0		39	1.2	0.11	0.06	7.9	16.2
0.079	0.70	0.155	0.0019	<0.16	1.1		27	14.2	0.10	0.04	12.6	16.1
0.055	0.64	0.085	0.0021	<0.16	0.7		30	1.4	0.07	0.03	9.5	14.2
0.026	0.59	0.139	0.0017	<0.10	0.8		19	2.3	0.04	0.02	17.5	9.6
0.349	4.06	0.023	0.0376	0.74	146.9		800	2.3	0.30	0.19	21.0	54.1
0.073	15.10	0.023	0.0492	<0.57	109.5		86	3.8	0.09	0.25	22.2	34.8
0.261	3.10	0.062	0.2484	0.55	53.4		723	2.9	0.32	0.20	17.7	55.8
0.090	4.14	0.175	0.0048	<0.36	100.7		91	2.2	0.16	0.26	7.6	21.6
0.113	1.48	0.151	0.0038	0.30	49.0		78	3.8	0.20	0.16	24.6	25.8
0.326	0.32	0.016	0.0071	<0.90	1.5		277	1.9	0.22	<0.05	12.4	62.1

Cs ppm	Cu ppm	Ga ppm	Ge ppm	Hg ppm	Li ppm	Mn ppm	Mo ppm	Nb ppm	Ni ppm	Pb ppm	Rb ppm	Sb ppm
1.12	24.1	5.1	0.8	0.42	5.1	46.3	1.7	2.2	5.4	5.4	9.1	0.6
1.47	57.2	6.5	0.8	0.25	7.6	43.1	0.9	3.6	5.0	10.3	11.4	1.0
0.01	8.9	0.9	0.1	0.04	1.3	35.5	0.2	0.6	1.4	0.4	0.1	0.1
<0.01	6.7	1.0	0.1	0.03	2.3	21.6	0.2	0.6	0.6	0.3	0.1	0.1
0.01	3.9	2.3	0.5	0.52	1.4	15.0	0.2	1.2	1.1	0.6	0.1	0.1
<0.01	4.0	0.6	0.1	0.03	1.1	12.6	0.2	0.5	1.4	0.1	0.1	0.0
0.12	12.6	2.6	0.3	0.08	2.6	11.3	0.7	2.8	3.3	1.8	1.9	0.4
0.25	5.5	2.2	0.3	0.02	1.7	9.6	0.6	1.0	4.4	1.9	2.8	0.2
4.14	28.0	13.8	3.0	0.04	17.4	13.2	1.5	6.1	10.2	12.1	41.4	1.8
0.05	5.7	0.9	0.1	0.02	1.1	10.4	0.4	0.7	2.3	0.4	0.7	0.1
0.05	5.3	0.9	0.2	0.03	1.0	10.1	0.4	0.4	1.9	0.4	0.7	0.1
0.02	7.1	0.9	0.1	0.04	1.1	11.8	0.2	0.2	1.4	0.3	0.3	0.1
0.02	7.6	0.9	0.1	0.04	1.3	13.1	0.2	0.5	1.5	0.4	0.3	0.1
0.08	9.7	1.2	0.2	0.10	4.5	12.1	0.3	0.9	2.5	1.4	0.8	0.1
0.10	10.4	1.5	0.2	0.08	5.3	14.8	0.3	1.1	3.4	1.5	1.0	0.1
0.10	9.8	1.4	0.2	0.04	4.7	13.5	0.3	1.0	2.8	1.2	0.9	0.1
0.12	10.5	1.4	0.2	0.07	5.0	14.2	0.3	1.2	3.0	1.7	1.1	0.1
0.20	10.3	1.7	0.3	0.07	5.4	9.8	0.4	1.2	3.0	1.8	2.0	0.2
0.22	12.4	2.0	0.3	0.13	6.4	10.6	0.5	1.4	3.9	2.2	2.3	0.2
0.14	10.0	1.7	0.2	0.09	5.2	10.8	0.5	1.3	2.9	1.4	1.4	0.2
0.18	10.1	1.7	0.3	0.06	5.3	13.5	0.6	1.2	3.3	1.6	1.9	0.2
0.13	9.0	1.3	0.2	0.05	4.4	8.3	0.3	1.0	2.0	1.4	1.3	0.1
0.06	8.9	1.3	0.2	0.05	4.3	8.3	0.3	1.0	2.0	1.2	0.7	0.1
0.08	9.1	1.3	0.2	0.06	4.2	7.8	0.3	1.1	2.1	1.2	0.9	0.1

Cs ppm	Cu ppm	Ga ppm	Ge ppm	Hg ppm	Li ppm	Mn ppm	Mo ppm	Nb ppm	Ni ppm	Pb ppm	Rb ppm	Sb ppm
0.16	10.7	1.6	0.2	0.10	4.9	9.1	0.4	1.8	2.5	1.6	1.6	0.5
0.74	9.1	2.6	0.2	0.59	7.1	36.3	0.5	1.5	4.9	3.2	11.5	0.2
0.91	10.1	3.0	0.2	0.06	8.3	52.0	0.5	1.6	10.8	4.0	14.6	0.2
0.67	8.8	2.4	0.2	0.06	6.6	43.1	0.9	1.3	4.5	2.9	10.9	0.2
0.68	8.2	2.5	0.3	0.04	6.4	31.1	1.0	1.3	3.7	3.1	10.9	0.2
0.08	6.8	1.5	0.3	0.04	3.4	12.9	0.3	1.4	4.7	2.8	1.3	0.1
0.12	6.8	1.5	0.2	0.05	3.5	18.0	0.3	1.5	4.9	2.8	1.9	0.1
0.18	7.1	1.6	0.2	0.10	3.7	18.9	0.3	1.4	4.5	2.4	2.9	0.1
0.24	7.0	1.6	0.2	0.04	4.0	23.8	0.3	1.4	3.9	2.3	3.6	0.1
0.18	11.1	1.8	0.4	0.28	4.4	23.7	1.5	0.8	8.6	1.7	2.1	0.4
0.35	13.7	2.3	0.4	0.11	5.9	22.8	2.1	0.9	13.5	2.7	4.0	0.6
0.11	7.9	1.2	0.2	0.10	3.5	12.6	1.4	0.6	18.9	1.3	1.2	0.3
0.29	11.1	2.0	0.3	0.12	4.7	20.8	1.5	0.8	9.2	2.0	3.2	0.4
0.06	8.6	1.3	0.2	0.13	3.9	10.2	0.4	0.9	2.9	0.9	0.7	0.1
0.08	8.9	1.4	0.2	0.05	4.4	10.4	0.4	1.1	3.1	1.1	0.8	0.1
0.06	7.9	1.2	0.1	0.08	3.9	8.8	0.3	1.0	2.5	1.0	0.6	0.1
0.07	8.2	1.2	0.2	0.06	3.8	10.0	0.3	1.0	2.8	0.9	0.7	0.1
0.10	8.9	1.3	0.1	0.05	4.1	8.2	0.3	1.0	2.0	1.4	1.1	0.1
0.72	9.3	2.6	0.3	0.05	6.9	33.7	1.3	1.3	4.5	4.1	11.0	0.2
0.16	16.0	1.7	0.2	0.12	5.0	15.1	0.4	1.0	1.3	1.7	1.6	0.2
0.18	15.8	1.8	0.2	0.12	5.0	14.7	0.4	1.0	1.5	1.6	1.9	0.2
0.16	17.0	1.8	0.2	0.10	5.4	15.9	0.4	1.1	1.9	1.5	1.4	0.2
0.16	17.8	1.9	0.2	0.12	6.5	16.9	0.4	1.2	2.3	1.6	1.4	0.2
0.08	14.8	1.6	0.3	0.12	5.7	15.2	0.3	0.9	2.6	1.4	0.9	0.2
0.10	16.5	1.8	0.2	0.10	6.5	16.5	0.4	1.0	2.3	1.7	0.9	0.2
0.09	14.3	1.6	0.2	0.10	5.5	14.6	0.3	0.9	1.8	1.2	0.8	0.1
0.09	16.4	1.8	0.1	0.14	5.9	16.9	0.4	1.1	2.0	1.1	0.8	0.2
0.11	19.1	1.8	0.2	0.16	6.0	21.6	0.4	1.0	2.4	9.4	1.1	0.2

Cs ppm	Cu ppm	Ga ppm	Ge ppm	Hg ppm	Li ppm	Mn ppm	Mo ppm	Nb ppm	Ni ppm	Pb ppm	Rb ppm	Sb ppm
0.11	17.0	1.4	0.2	0.18	6.2	17.3	0.5	0.9	2.3	1.1	0.9	0.2
0.11	18.1	1.5	0.2	0.11	5.9	18.0	0.4	0.9	2.1	9.6	0.9	0.2
0.05	14.4	1.3	0.1	0.08	5.2	15.7	0.3	0.8	1.9	1.1	0.5	0.2
0.06	14.2	1.4	0.1	0.08	5.1	15.7	0.3	0.9	2.0	0.9	0.6	0.2
0.06	15.0	1.5	0.2	0.10	5.3	16.6	0.4	0.9	2.0	1.5	0.6	0.2
0.06	14.9	1.4	0.3	0.09	4.7	16.1	0.4	2.3	2.2	1.2	0.5	1.0
0.08	15.5	1.6	0.1	0.10	5.6	14.8	0.3	0.9	2.1	1.4	0.8	0.2
0.08	14.8	1.6	0.3	0.10	5.3	16.0	0.3	1.0	2.3	1.9	0.8	0.2
0.06	14.5	1.6	0.1	0.14	5.5	15.8	0.3	0.9	2.7	2.0	0.7	0.2
0.08	15.1	1.6	0.1	0.10	5.6	15.5	0.3	1.0	2.2	1.0	0.8	0.2
0.10	14.0	1.5	0.1	0.08	4.3	5.1	0.3	1.1	1.2	1.2	1.0	0.2
0.10	12.7	1.4	0.1	0.08	4.3	7.1	0.3	0.8	1.0	1.4	1.0	0.1
0.10	14.3	1.5	0.1	0.07	4.8	15.5	0.3	1.0	1.8	1.2	1.0	0.1
0.08	14.2	1.5	0.1	0.08	4.8	13.8	0.3	1.0	1.7	1.3	0.8	0.1
0.17	15.2	1.7	0.1	0.13	3.8	5.3	0.4	1.0	1.8	1.5	1.7	0.2
0.12	12.9	1.6	0.1	0.08	4.3	6.1	0.3	0.9	1.7	1.0	1.2	0.1
0.12	14.6	1.5	0.1	0.09	4.3	5.1	0.3	0.8	1.6	1.9	1.1	0.1
0.12	14.5	1.5	0.2	0.08	4.6	5.2	0.4	0.8	2.0	1.4	1.1	0.1
0.23	27.3	2.1	0.2	0.11	5.5	7.8	0.5	1.4	2.5	2.6	2.3	0.2
0.22	18.0	2.2	0.2	0.11	5.4	8.0	0.5	1.2	2.2	2.3	2.2	0.2
0.22	15.4	2.1	0.2	0.11	5.1	7.5	0.5	1.3	2.2	2.0	2.2	0.2
0.07	17.0	1.6	0.3	0.11	5.6	16.3	0.3	0.9	2.1	1.2	0.7	0.2
0.09	12.5	1.5	0.1	0.09	4.2	7.3	0.3	0.9	1.1	0.9	1.0	0.1
0.15	11.2	1.9	0.1	0.14	4.7	10.8	0.5	1.0	3.2	2.6	1.7	0.2
0.16	11.2	2.0	0.1	0.07	4.7	10.5	0.4	1.0	3.0	2.1	1.8	0.2
0.14	10.5	1.9	0.2	0.09	4.7	10.4	0.4	0.9	3.1	2.2	1.6	0.2
0.15	10.7	1.9	0.1	0.09	4.8	10.4	0.4	1.0	3.0	2.1	1.7	0.2
0.18	11.0	2.0	0.1	0.09	4.8	8.3	0.5	1.1	2.8	2.1	2.1	0.2

Cs ppm	Cu ppm	Ga ppm	Ge ppm	Hg ppm	Li ppm	Mn ppm	Mo ppm	Nb ppm	Ni ppm	Pb ppm	Rb ppm	Sb ppm
0.16	11.7	2.2	0.2	0.08	4.7	9.0	0.5	1.1	3.2	2.5	1.8	0.2
0.16	11.5	2.1	0.1	0.09	4.8	9.5	0.5	1.1	2.9	2.1	1.9	0.2
0.16	12.0	2.1	0.2	0.08	4.9	9.6	0.5	1.0	2.8	2.5	1.8	0.2
0.16	12.9	2.0	0.2	0.08	4.8	9.2	0.5	1.0	3.0	2.8	1.8	0.2
0.08	10.9	1.7	0.1	0.06	5.4	31.0	0.4	0.9	2.7	1.8	0.8	0.1
0.08	10.9	1.7	0.2	0.13	5.3	30.7	0.3	0.9	2.8	1.6	0.9	0.1
0.07	10.0	1.7	0.1	0.07	5.3	30.4	0.3	0.9	2.6	1.7	0.8	0.1
0.09	10.5	1.7	0.2	0.08	5.4	30.6	0.3	0.8	2.4	1.7	1.0	0.1
0.09	10.9	1.9	0.2	0.09	5.4	23.8	0.4	0.9	2.5	1.9	1.0	0.1
0.19	9.2	2.2	0.4	0.05	5.7	7.7	0.4	1.0	3.2	2.3	2.4	1.2
0.11	8.4	1.8	0.2	0.04	4.9	6.2	0.3	0.9	2.9	1.6	1.4	0.1
0.13	9.0	1.8	0.2	0.04	5.0	5.8	0.5	1.2	2.7	1.7	1.5	0.2
0.12	8.9	1.7	0.2	0.04	4.9	7.6	0.4	1.0	2.7	1.7	1.5	0.1
0.12	8.5	1.9	0.3	0.04	4.2	6.6	0.3	1.0	3.0	1.7	1.5	0.1
0.15	9.7	2.1	0.3	0.06	5.4	7.0	0.4	1.2	2.9	1.6	1.8	0.2
0.22	9.4	2.0	0.2	0.04	3.8	11.9	0.5	1.5	4.7	3.3	2.4	0.2
0.17	9.5	1.9	0.2	0.04	3.3	8.7	0.4	1.3	4.7	3.1	2.1	0.2
0.15	8.2	1.8	0.2	<0.02	3.2	15.8	0.4	1.5	4.2	3.0	1.7	0.2
0.14	7.9	1.8	0.2	0.03	3.2	8.8	0.4	1.4	4.0	3.0	1.7	0.1
0.15	8.9	1.9	0.2	0.03	3.4	10.4	0.4	1.5	4.6	3.0	1.9	0.1
0.19	9.1	2.0	0.2	0.03	3.6	10.6	0.4	1.4	4.7	3.1	2.5	0.1
0.41	13.2	2.8	0.4	0.12	6.4	13.4	1.5	1.2	10.4	3.3	4.7	0.4
0.34	13.7	2.6	0.4	0.14	5.9	11.7	1.3	0.9	10.4	2.8	3.9	0.3
0.08	10.6	1.8	0.2	0.12	5.2	8.4	0.4	1.0	3.5	1.5	1.0	0.1
0.06	10.8	1.8	0.2	0.10	4.9	8.5	0.5	1.0	3.4	1.6	0.7	0.1
0.08	10.4	1.7	0.2	0.15	5.4	30.8	0.4	0.9	2.8	1.7	0.8	0.2
0.17	11.9	2.1	0.2	0.08	4.7	8.8	0.5	0.9	3.1	2.2	1.8	0.2

Cs ppm	Cu ppm	Ga ppm	Ge ppm	Hg ppm	Li ppm	Mn ppm	Mo ppm	Nb ppm	Ni ppm	Pb ppm	Rb ppm	Sb ppm
0.21	7.5	1.9	1.0	0.05	7.4	32.2	2.0	1.1	3.5	1.7	2.3	0.5
0.08	7.4	1.6	0.8	0.04	7.0	17.5	1.6	0.9	2.7	1.8	0.9	0.4
0.03	6.3	0.8	0.1	0.03	2.4	33.0	1.0	0.4	1.6	0.5	0.2	0.1
0.09	15.1	2.1	0.5	0.11	14.3	28.7	1.4	1.4	2.8	2.6	1.0	0.3
0.31	11.6	2.2	0.5	0.07	10.5	14.3	1.6	1.2	3.3	2.4	1.7	0.3
0.02	1.9	0.4	0.1	<0.02	1.9	12.9	0.2	0.2	0.9	0.2	0.2	0.0
0.01	1.9	1.4	0.2	<0.02	4.1	12.5	0.2	0.8	0.9	1.0	0.2	0.1
0.01	1.9	0.8	0.1	<0.02	3.7	13.8	0.2	0.4	0.9	0.8	0.1	0.1
0.03	2.0	0.6	0.2	<0.02	2.3	16.3	0.2	0.3	1.3	0.5	0.3	0.1
0.13	2.9	1.3	2.0	0.04	2.0	11.7	0.2	0.5	11.6	0.6	1.2	0.1
0.37	2.9	2.2	2.6	0.04	2.0	13.2	0.2	0.7	11.1	1.4	2.7	0.1
0.09	4.6	1.5	0.7	<0.02	3.0	99.4	0.4	0.7	0.7	2.8	0.9	0.1
0.28	4.7	2.0	0.5	0.18	2.6	342.0	0.6	0.8	3.6	2.7	3.1	0.1
1.71	11.3	6.9	1.3	0.53	6.6	169.0	0.5	3.0	<1.2	11.5	17.6	0.2
0.13	4.8	1.5	0.8	0.03	2.0	104.0	0.4	0.6	0.6	2.2	1.3	0.1
0.18	3.9	1.7	0.7	0.09	2.5	321.0	0.5	0.6	3.4	2.7	2.0	0.1
4.25	8.2	11.3	3.8	0.02	31.6	24.8	1.1	7.2	4.9	14.7	41.0	0.9
0.77	2.8	13.6	3.4	0.07	45.6	17.3	1.6	8.8	6.8	14.9	11.3	0.9
0.12	8.8	5.0	1.6	<0.02	12.4	7.0	0.8	4.2	1.0	9.8	1.3	0.4
0.19	5.1	3.0	1.9	0.03	9.9	3.2	0.3	2.1	3.6	5.6	1.4	0.3
0.02	2.3	2.0	1.5	0.02	8.9	1.7	0.2	0.9	2.1	2.7	0.1	0.1
0.17	4.3	2.6	3.9	0.12	10.1	1.8	0.5	1.8	2.8	5.6	1.2	0.3
0.19	3.5	2.9	0.5	<0.02	8.6	6.0	0.5	1.9	1.6	5.1	2.1	0.2
0.18	3.8	2.7	0.4	<0.02	9.5	3.6	0.4	1.4	<0.3	4.3	2.0	0.1
0.17	3.5	2.6	0.4	<0.02	5.3	11.8	0.6	1.9	1.2	4.6	2.3	0.2
0.69	3.3	3.6	0.6	<0.02	8.7	9.0	0.5	2.1	2.4	6.3	7.7	0.2

Cs ppm	Cu ppm	Ga ppm	Ge ppm	Hg ppm	Li ppm	Mn ppm	Mo ppm	Nb ppm	Ni ppm	Pb ppm	Rb ppm	Sb ppm
0.76	3.6	4.0	2.0	0.03	10.5	30.2	0.6	3.2	2.0	7.7	7.8	0.3
0.83	7.3	3.7	4.5	0.09	6.9	8.8	0.8	1.8	0.8	6.0	5.7	0.7
0.01	1.7	1.2	0.2	0.11	3.1	28.4	0.3	0.6	<0.2	1.3	0.2	0.2
0.46	4.8	1.9	0.3	<0.02	4.3	10.8	0.5	1.1	3.9	2.9	4.5	0.4
0.44	3.6	4.7	0.9	0.02	8.9	18.3	0.6	3.4	1.0	11.9	4.8	0.4
0.20	3.3	3.3	0.9	0.02	6.9	17.9	0.6	2.8	<0.4	6.2	1.9	0.3
0.44	8.1	4.7	1.4	<0.02	13.5	4.5	0.9	2.6	4.9	7.2	3.1	0.5
0.02	3.6	1.4	0.4	<0.02	5.6	2.8	0.3	0.5	0.7	2.3	0.1	0.1
0.07	7.9	2.8	1.2	<0.02	6.8	3.3	0.6	1.3	3.7	4.1	0.6	0.4
0.19	5.4	2.3	1.9	<0.02	3.0	16.8	0.6	0.8	7.7	2.0	1.4	0.8
0.16	3.0	2.2	0.4	<0.02	9.0	19.0	0.5	1.5	0.3	2.8	1.5	0.3
0.13	4.7	1.6	0.3	<0.02	4.2	9.9	0.4	0.9	1.2	1.6	1.2	0.3
0.55	3.8	2.8	1.0	<0.02	8.5	11.4	0.3	1.7	1.3	3.3	5.6	0.5
0.17	2.7	2.1	0.5	<0.02	5.6	6.8	0.3	1.2	0.4	1.9	1.4	0.3
0.16	4.1	2.9	0.4	<0.02	6.4	4.9	0.5	1.4	1.3	4.5	1.3	0.2
0.15	4.1	2.7	0.4	0.08	5.8	4.3	0.5	1.3	1.2	3.9	1.2	0.2
0.73	13.7	8.7	5.0	0.10	33.2	48.8	0.9	5.3	14.6	13.7	6.8	1.1
0.26	2.0	2.8	1.1	<0.02	10.7	4.6	0.3	1.7	2.1	3.7	2.6	0.3
0.42	6.2	2.4	0.9	<0.02	6.8	5.9	0.4	1.2	3.6	3.7	4.0	0.4
0.17	7.2	3.8	0.5	0.04	10.0	3.8	0.5	1.8	1.3	5.6	1.2	0.2
0.29	5.7	2.5	0.9	0.03	5.9	8.5	0.5	1.4	0.5	4.6	2.2	0.3
0.45	11.5	6.7	1.5	0.02	21.8	6.1	1.0	3.8	3.0	10.4	2.9	0.5
0.37	1.9	1.7	0.3	<0.02	4.7	9.9	0.2	1.0	0.4	2.7	4.2	0.1
0.43	4.0	3.1	0.7	<0.02	11.5	6.3	0.4	2.0	1.0	5.1	4.5	0.2
0.20	3.4	1.6	0.2	0.05	5.0	4.3	0.3	0.7	1.2	2.4	1.8	0.2
0.18	3.6	1.6	0.3	0.08	4.9	4.1	0.3	0.8	1.1	2.5	1.4	0.2
0.48	3.4	2.8	0.4	0.05	7.8	44.6	0.3	1.7	3.6	4.7	5.3	0.2
0.61	2.6	2.5	0.5	0.05	6.2	8.1	0.3	1.6	1.6	4.0	4.8	0.2

Cs ppm	Cu ppm	Ga ppm	Ge ppm	Hg ppm	Li ppm	Mn ppm	Mo ppm	Nb ppm	Ni ppm	Pb ppm	Rb ppm	Sb ppm
0.15	3.2	1.9	0.5	0.03	5.4	6.4	0.4	1.8	2.0	2.8	1.2	0.2
0.01	0.7	0.3	0.1	<0.02	1.1	3.0	0.1	0.2	0.4	0.3	0.1	0.0
0.02	2.1	0.8	0.2	<0.02	2.6	3.6	0.1	0.4	0.7	0.9	0.2	0.1
0.05	1.9	0.6	0.1	0.03	2.4	13.4	0.1	0.4	0.8	0.7	0.4	0.1
0.14	2.7	0.9	0.3	<0.02	3.0	6.2	0.2	0.5	1.4	0.9	1.0	0.2
0.09	1.1	0.3	0.2	<0.02	0.9	9.3	0.2	0.1	1.3	0.3	1.0	0.1
0.03	2.0	0.6	0.1	<0.02	2.5	5.5	0.2	0.4	0.9	0.5	0.3	0.1
0.02	2.0	0.5	0.1	<0.02	2.0	4.6	0.1	0.3	1.6	0.4	0.2	0.0
0.11	1.7	0.4	0.1	<0.02	1.4	15.3	0.1	0.3	1.0	0.3	1.1	0.1
0.07	2.5	0.9	0.1	<0.02	3.6	11.0	0.3	0.5	1.3	1.1	0.7	0.2
0.41	6.0	1.8	0.4	0.04	4.9	9.2	0.8	0.7	3.7	2.3	5.1	0.2
0.38	14.2	2.2	0.5	0.03	7.6	10.4	0.9	1.1	3.4	2.3	4.4	0.2
0.17	3.1	1.6	0.3	0.08	4.1	3.8	0.3	0.7	0.9	2.4	1.4	0.2
0.27	5.0	2.5	24.7	0.31	1.5	18.2	5.3	<0.5	1.4	84.5	2.6	0.6
0.37	6.9	3.8	10.4	0.09	1.7	44.2	9.0	0.7	4.1	22.8	4.6	0.1
0.62	7.5	3.2	34.8	0.04	2.9	119.0	2.7	0.8	28.4	11.9	10.3	2.6
0.24	6.6	1.3	10.9	0.07	3.4	293.0	1.4	0.5	2.5	7.0	3.4	0.8
0.38	3.1	0.9	0.2	0.72	2.2	95.9	0.8	0.4	7.1	1.1	4.2	0.1
0.34	5.9	1.2	0.3	0.03	4.8	299.0	0.6	0.5	9.3	2.1	5.0	0.1
0.29	10.4	1.8	18.0	0.10	4.6	33.6	3.4	0.4	3.8	20.4	3.0	0.2
0.60	8.7	2.6	20.9	0.02	6.8	65.2	0.3	1.0	41.6	3.3	9.5	6.4
2.16	8.8	6.5	13.9	0.30	28.8	112.0	1.8	3.6	23.4	90.0	21.6	1.2
1.53	22.2	4.9	43.1	0.11	12.8	73.7	1.5	2.8	32.0	264.0	19.5	7.4
1.72	21.2	5.6	14.1	0.02	48.5	21.2	2.7	3.0	31.3	16.2	16.2	4.6

Cs ppm	Cu ppm	Ga ppm	Ge ppm	Hg ppm	Li ppm	Mn ppm	Mo ppm	Nb ppm	Ni ppm	Pb ppm	Rb ppm	Sb ppm
1.35	35.8	4.2	12.5	0.32	8.4	119.0	12.7	2.0	57.7	378.0	19.9	4.2
0.73	8.1	2.5	25.4	0.13	4.4	9.2	0.8	1.8	26.0	40.3	9.2	1.6
0.82	10.6	2.5	22.7	0.10	5.8	7.5	0.8	1.8	25.0	>57.4	9.8	1.9
0.72	7.1	3.0	28.4	0.13	3.3	5.4	0.9	1.7	26.0	30.5	8.7	2.0
1.31	5.3	3.4	9.0	0.22	13.5	13.7	15.0	2.8	26.1	>85.4	14.8	0.4
1.44	7.6	3.5	10.8	0.14	12.2	14.2	13.1	3.2	30.9	>85.4	15.6	0.3
1.32	7.9	3.8	11.8	0.19	14.5	39.9	7.9	2.8	28.2	56.0	15.4	0.5
0.87	4.0	2.3	4.2	0.12	11.8	67.6	1.4	2.2	15.9	27.3	9.5	0.3
1.25	8.1	3.7	10.6	0.16	6.2	94.6	13.7	3.4	19.4	22.8	17.1	1.1
2.29	41.2	9.4	45.8	0.13	25.2	71.0	18.3	9.2	103.0	167.0	32.1	14.2
1.21	7.8	3.2	5.6	0.10	6.8	35.4	9.1	2.0	9.0	4.3	15.2	0.8
0.93	3.2	2.1	11.2	0.49	9.6	67.2	11.0	1.6	13.8	24.0	10.9	1.9
2.03	10.9	3.6	9.8	0.11	8.6	26.5	20.3	3.1	13.7	11.7	25.0	4.2
2.54	31.5	5.2	13.3	0.10	16.9	35.1	2.3	3.6	26.6	8.2	24.2	1.1
1.66	36.2	5.1	26.5	0.14	15.2	313.0	45.8	4.8	38.6	48.2	18.6	7.2
0.73	5.9	2.5	10.3	0.06	3.6	44.8	4.5	1.2	8.0	84.7	10.0	<0.2
0.88	6.5	2.2	4.3	0.12	9.9	83.2	4.6	1.5	6.0	7.1	10.6	<0.3
2.01	18.6	7.7	33.4	0.24	8.4	60.6	2.1	4.2	35.5	439.0	35.5	1.0
0.04	6.9	2.6	15.1	0.18	2.2	26.7	1.0	<0.7	51.6	107.0	0.6	1.7
2.29	25.7	7.3	27.2	0.14	27.2	44.3	1.7	2.9	38.6	143.0	21.5	1.3
1.57	11.2	4.6	19.0	0.09	12.3	53.8	2.1	3.4	12.3	5.0	23.5	0.3
1.12	7.1	3.1	2.4	0.12	6.4	23.3	8.7	1.9	11.2	4.3	12.1	0.5
1.17	4.0	2.6	11.3	0.41	8.1	111.0	20.2	2.0	11.7	8.1	15.6	2.4
2.30	8.7	3.9	12.0	0.07	7.3	47.8	14.0	3.5	9.0	3.5	31.9	2.1
1.39	10.5	7.3	14.6	0.35	17.5	33.6	7.3	2.9	51.1	111.0	14.2	0.9
1.43	17.6	5.8	23.1	0.22	11.0	13.2	1.0	4.4	55.0	28.6	16.5	1.4
1.21	5.5	3.4	5.8	<0.02	11.4	5.1	2.7	2.1	10.7	6.1	12.8	0.5
1.00	5.2	3.1	1.4	0.08	10.3	47.2	4.5	2.6	5.5	2.6	13.1	<0.3

Cs ppm	Cu ppm	Ga ppm	Ge ppm	Hg ppm	Li ppm	Mn ppm	Mo ppm	Nb ppm	Ni ppm	Pb ppm	Rb ppm	Sb ppm
1.11	25.1	5.7	48.3	0.16	12.5	197.0	11.5	5.4	23.3	125.0	14.5	3.2
0.07	3.2	4.6	28.4	0.02	1.9	4.6	0.2	0.4	81.0	4.5	1.1	3.3
0.51	13.0	4.0	7.8	0.18	7.0	33.8	0.2	1.1	38.3	13.7	5.5	1.6
0.38	23.9	6.1	12.6	0.03	8.7	37.8	0.3	1.7	65.3	26.1	5.4	2.1
0.40	12.6	4.3	11.4	0.14	2.7	10.7	0.3	0.6	90.2	29.4	4.1	1.5
0.73	17.3	4.2	4.8	0.12	4.8	5.9	0.4	1.0	64.8	28.0	8.5	1.2
0.08	15.0	3.0	4.9	0.10	3.7	2.3	0.3	0.5	44.4	16.9	1.1	1.0
0.20	24.8	5.4	9.2	0.14	6.9	5.7	0.4	1.2	81.8	54.1	3.0	2.0
0.33	6.1	6.7	42.0	0.07	2.7	11.4	0.2	0.8	104.0	16.6	4.4	4.8
1.00	18.2	3.9	10.0	0.02	7.4	12.4	0.2	1.4	51.4	17.3	10.5	1.5
0.21	14.2	3.5	16.7	0.29	3.6	8.1	0.2	0.4	52.5	19.0	2.5	1.8
0.11	20.4	4.3	12.0	0.04	7.5	7.2	0.2	1.0	76.8	28.2	1.7	1.5
0.38	7.3	4.3	9.4	0.12	5.8	10.8	0.9	1.0	39.2	40.3	4.4	1.5
1.75	49.9	9.0	4.7	0.11	74.3	12.6	1.6	4.7	29.6	43.9	15.8	0.9
1.03	23.8	8.0	10.9	0.42	30.4	35.4	2.3	1.6	82.0	45.0	12.0	2.5
0.25	3.2	2.7	7.8	0.13	5.3	24.5	1.0	0.6	6.1	26.6	3.0	0.2
0.26	2.8	2.9	8.5	0.11	4.5	21.3	0.9	0.7	5.5	24.2	2.9	0.1
0.03	5.8	1.3	7.0	0.18	3.9	12.2	0.9	0.3	8.5	44.1	0.5	0.1
0.02	4.7	1.4	9.9	0.11	2.6	10.9	0.6	0.3	8.0	22.6	0.3	0.1
0.98	10.7	6.0	20.6	0.09	18.4	15.3	0.9	1.6	28.8	15.0	11.6	1.2
1.13	10.1	6.7	27.0	0.09	20.1	15.1	1.0	1.8	31.0	13.5	13.1	1.3
0.17	24.9	5.0	13.0	0.32	8.6	19.0	1.5	0.5	30.4	54.9	2.4	0.7
0.15	18.7	4.3	11.6	0.16	7.3	9.9	1.2	0.4	29.0	21.5	1.9	0.6
0.09	6.0	1.4	13.1	0.27	3.0	12.7	0.7	0.2	9.6	45.9	1.3	0.1
0.08	4.2	1.4	14.9	0.18	2.2	7.2	0.7	0.2	8.7	33.1	1.2	0.1
0.26	7.6	3.3	41.9	0.72	3.2	7.6	1.1	0.3	14.1	35.6	3.6	0.7
0.29	7.0	3.6	36.8	0.11	2.7	6.3	1.1	0.4	13.4	30.5	3.9	0.8
0.56	3.9	4.1	17.8	0.08	3.1	17.5	0.3	0.6	11.3	15.2	6.3	5.2

Cs ppm	Cu ppm	Ga ppm	Ge ppm	Hg ppm	Li ppm	Mn ppm	Mo ppm	Nb ppm	Ni ppm	Pb ppm	Rb ppm	Sb ppm
0.62	3.7	4.5	22.3	0.07	1.9	7.7	0.4	0.7	11.0	10.4	7.0	5.9
1.79	5.2	4.9	9.3	0.05	8.5	19.7	0.5	2.1	17.3	15.9	25.1	2.0
1.92	4.6	5.1	9.2	0.04	7.5	15.9	0.5	2.3	16.4	22.7	27.0	2.0
1.90	5.9	5.8	10.0	0.05	10.0	21.6	0.6	2.2	30.6	30.6	30.2	2.6
1.68	5.7	4.9	8.7	0.38	9.8	21.1	0.5	1.9	28.7	18.4	26.1	2.1
1.19	15.6	5.8	22.0	0.12	6.9	13.8	1.0	1.5	45.5	5.6	17.4	4.6
1.26	15.0	6.5	26.1	0.04	5.1	12.3	1.0	1.7	41.7	6.5	18.2	5.2
0.08	13.2	2.8	3.8	0.09	3.9	2.2	0.3	0.5	40.3	15.1	1.1	0.9
0.28	2.9	3.1	11.9	0.11	4.8	21.6	0.9	0.8	5.9	23.6	3.1	0.1
0.29	6.9	3.7	30.2	0.12	2.9	6.4	1.1	0.4	13.2	31.6	3.9	0.7
0.66	4.8	2.9	17.0	0.06	3.7	16.6	0.4	0.8	13.2	9.5	8.4	1.5
0.73	4.4	3.0	18.6	0.06	2.9	9.9	0.3	0.8	12.5	9.8	9.1	1.4
1.84	6.1	4.2	7.2	0.04	12.0	27.1	0.9	2.1	20.4	12.0	26.9	0.7
1.68	6.8	4.0	7.3	0.05	11.3	20.5	0.6	2.0	21.6	13.9	24.5	0.7
1.25	10.8	5.4	17.4	0.05	8.2	14.0	1.4	1.3	62.1	16.5	18.7	3.0
1.20	10.6	5.4	17.1	0.04	6.6	11.8	1.3	1.3	67.2	13.2	17.7	3.1
0.60	12.8	4.0	17.8	0.49	6.6	35.1	3.5	1.5	75.5	85.3	9.8	3.3
0.26	6.1	3.5	23.7	0.30	3.4	19.6	2.2	1.0	50.1	62.1	3.4	3.3
0.50	11.4	3.0	18.8	0.15	4.0	18.9	2.5	0.7	32.5	38.3	7.1	3.1
0.40	10.7	2.7	19.4	0.17	3.3	10.0	2.3	0.6	32.5	32.4	5.7	2.8
1.50	20.7	4.0	24.0	0.08	8.2	63.5	2.4	2.1	59.5	12.9	25.2	3.9
1.23	19.3	3.4	27.3	0.09	7.2	31.7	2.3	1.8	64.1	11.3	20.9	4.0
2.05	11.1	6.6	41.0	0.04	10.2	58.7	1.7	7.0	67.7	26.8	34.9	5.1
1.21	7.7	3.9	34.0	0.04	4.1	17.1	1.7	5.8	60.9	21.5	17.3	4.7
1.62	7.9	4.0	19.3	0.03	9.4	21.0	4.1	3.0	36.8	14.8	23.4	3.0
2.28	7.3	5.4	28.8	<0.02	9.9	15.5	3.0	3.7	39.6	15.8	31.9	3.8
0.85	10.7	2.8	15.0	0.03	6.9	26.9	3.2	1.0	36.4	10.6	11.9	4.3
0.83	9.9	2.7	17.5	0.02	6.3	9.0	3.8	1.1	35.6	4.5	11.6	4.3

Cs ppm	Cu ppm	Ga ppm	Ge ppm	Hg ppm	Li ppm	Mn ppm	Mo ppm	Nb ppm	Ni ppm	Pb ppm	Rb ppm	Sb ppm
0.97	4.6	2.7	14.1	<0.02	5.5	87.0	2.1	1.1	16.1	10.4	14.7	1.0
0.88	4.7	2.4	11.8	0.04	5.0	39.4	1.6	1.0	15.6	3.9	13.5	0.8
4.10	13.9	9.0	17.2	0.03	29.6	255.0	2.4	4.1	32.0	29.2	66.9	2.0
1.65	7.4	4.1	23.4	0.02	8.7	19.2	2.2	2.1	29.6	10.0	24.3	2.4
0.06	6.9	1.4	8.2	0.06	2.8	12.2	1.4	0.2	7.7	13.1	0.9	0.3
0.02	5.5	1.2	8.2	0.04	1.8	2.6	1.0	0.2	6.9	9.4	0.4	0.2
0.03	7.6	1.6	13.7	0.04	2.3	24.5	1.6	0.2	13.2	9.9	0.6	0.6
0.02	6.0	1.3	16.6	0.02	1.1	1.1	1.1	0.2	11.4	7.0	0.4	0.5
0.59	23.5	4.0	18.7	0.05	6.3	27.9	2.0	1.0	13.1	14.1	11.0	1.8
0.55	26.1	4.1	22.1	0.05	4.4	3.2	1.6	1.0	13.8	15.7	9.9	1.9
0.23	15.1	2.0	14.1	0.21	6.6	8.2	0.8	0.7	31.1	53.0	3.5	1.2
0.16	10.1	2.1	16.9	0.11	5.3	5.3	0.7	0.9	21.5	46.3	2.6	1.2
0.01	5.9	1.6	20.8	0.08	2.9	14.9	0.5	0.2	23.5	16.4	0.1	0.6
0.01	5.5	1.9	26.2	0.07	2.9	6.7	0.5	0.2	25.8	16.4	0.2	0.7
0.09	31.1	3.0	16.8	0.05	10.7	9.0	0.4	0.5	49.4	42.5	0.8	1.4
0.09	29.5	3.2	19.3	0.04	10.2	3.4	0.3	0.5	51.6	20.3	0.8	1.6
0.63	36.9	4.7	31.3	0.06	20.2	9.9	0.5	1.3	74.1	23.5	7.5	3.5
0.65	36.3	4.3	25.7	0.06	21.4	7.5	0.6	1.2	68.4	19.9	7.7	3.2
0.14	10.9	1.9	14.9	0.13	5.5	5.6	0.6	0.7	21.5	42.5	2.2	1.1
1.52	5.9	3.4	5.0	0.05	11.1	29.9	0.9	1.6	19.0	14.3	21.6	0.7
0.45	11.1	2.8	20.7	0.19	3.6	11.4	2.4	0.7	32.1	37.1	6.1	3.0
0.59	12.6	3.8	10.3	0.03	2.9	5.6	0.2	0.9	81.7	18.9	6.4	1.8
0.59	10.7	4.0	11.8	0.35	2.6	3.3	0.2	0.9	83.4	12.9	6.6	2.0
0.16	22.5	3.8	11.5	<0.02	5.7	2.4	0.2	0.7	74.9	28.0	1.7	1.5
0.14	19.5	3.0	9.2	<0.02	4.9	1.4	0.1	0.6	60.2	16.9	1.5	1.2
0.10	23.7	4.8	11.8	0.13	7.3	3.3	0.2	1.3	93.1	43.9	1.5	2.0
0.10	17.7	4.2	9.6	0.07	7.0	2.6	0.2	1.3	76.1	25.4	1.5	1.8
0.30	8.6	4.7	31.3	0.12	3.5	9.6	1.2	0.6	66.9	28.8	3.8	1.6

Cs ppm	Cu ppm	Ga ppm	Ge ppm	Hg ppm	Li ppm	Mn ppm	Mo ppm	Nb ppm	Ni ppm	Pb ppm	Rb ppm	Sb ppm
0.26	5.6	4.9	39.9	0.08	2.6	6.7	1.0	0.6	69.2	10.7	2.9	1.7
0.47	15.8	3.0	5.4	0.02	17.9	2.8	0.6	1.3	23.2	13.8	4.5	0.4
0.47	13.8	3.1	5.1	<0.02	19.6	2.5	0.5	1.3	22.0	7.4	4.6	0.3
0.35	15.8	3.7	10.6	0.49	6.3	3.4	0.9	0.7	21.1	24.0	3.6	0.5
0.35	13.0	3.8	10.9	0.13	6.8	2.6	0.7	0.7	21.0	8.4	3.8	0.5
0.45	41.7	5.2	15.4	0.23	10.4	3.2	0.8	1.0	48.0	53.8	4.6	0.8
0.45	32.5	5.2	13.6	0.20	10.0	2.4	0.6	1.0	44.4	18.0	4.6	0.7
1.25	16.3	3.3	3.0	0.06	13.1	71.6	7.1	1.3	19.8	4.4	19.1	0.9
1.04	14.6	2.9	3.3	0.06	11.2	72.0	7.4	1.2	15.6	4.5	15.9	0.9
0.93	13.0	2.8	3.7	0.07	9.5	58.0	6.4	1.2	14.9	4.7	14.4	1.0
1.04	16.3	2.8	2.8	0.06	9.3	70.6	6.6	1.2	22.5	3.9	15.9	1.1
1.11	15.7	2.9	2.7	0.08	10.9	70.2	6.0	1.3	15.2	3.9	16.8	1.1
1.35	24.9	4.3	20.6	<0.02	8.7	40.3	3.9	2.0	51.4	10.2	18.5	4.2
1.30	14.4	4.3	18.7	<0.02	9.2	37.4	3.9	3.4	48.2	7.3	18.2	4.8
1.39	11.2	4.2	19.9	<0.02	8.9	42.0	4.3	1.9	33.7	6.8	19.0	4.1
0.92	5.2	2.1	3.6	0.13	6.2	79.5	5.3	1.0	8.5	2.4	13.2	3.0
1.16	5.9	2.6	3.4	0.07	4.7	32.9	5.4	1.2	7.7	3.0	16.1	3.2
1.72	12.3	3.2	1.0	0.03	8.5	71.8	2.4	1.7	7.7	3.8	16.1	1.5
1.28	12.6	2.9	0.5	0.06	6.1	36.1	2.5	1.5	7.6	3.5	12.3	1.7
0.51	14.5	1.9	0.2	0.17	7.3	48.6	3.7	0.8	7.8	3.5	6.1	1.6
0.48	12.8	2.1	0.2	0.09	5.2	23.4	2.7	1.0	7.8	3.3	5.6	1.3
0.84	18.8	2.4	0.4	0.24	7.5	30.5	7.3	1.0	20.6	5.2	12.7	3.6
0.70	15.9	2.3	0.4	0.03	5.1	11.9	5.6	1.2	20.6	3.2	10.6	0.6
1.44	13.7	3.8	2.7	0.04	9.0	25.0	6.8	2.0	19.6	3.8	23.5	0.5
1.19	12.8	3.4	1.4	0.03	7.0	16.0	6.4	2.1	19.4	3.4	19.5	0.4
0.18	22.5	4.3	10.3	<0.02	5.5	2.2	0.2	0.8	75.1	22.8	1.8	1.6
0.50	13.3	1.7	0.2	0.18	7.6	46.7	3.4	0.6	7.0	3.4	5.8	1.4
9.35	70.0	23.6	155.0	0.21	70.3	485.0	29.8	12.4	204.0	48.8	136.0	32.0

Cs ppm	Cu ppm	Ga ppm	Ge ppm	Hg ppm	Li ppm	Mn ppm	Mo ppm	Nb ppm	Ni ppm	Pb ppm	Rb ppm	Sb ppm
8.34	62.4	18.6	106.0	0.21	65.4	655.0	25.9	10.5	160.0	37.6	121.0	25.7
9.33	76.5	23.7	144.0	0.21	67.9	728.0	32.5	12.5	194.0	49.5	136.0	31.8
11.50	77.3	31.5	224.0	0.25	76.4	293.0	37.7	21.2	266.0	69.1	164.0	47.6
9.97	67.4	26.0	183.0	0.09	67.1	292.0	31.4	13.3	228.0	54.4	141.0	35.1
10.20	64.6	27.9	199.0	0.20	69.3	284.0	32.2	13.8	236.0	58.6	147.0	37.9
6.63	51.7	14.4	71.5	0.24	61.2	818.0	18.5	7.6	115.0	23.8	98.5	17.3
9.64	68.9	25.2	158.0	0.21	67.5	454.0	28.7	12.2	204.0	53.9	141.0	32.9
11.90	88.8	31.4	210.0	<0.02	92.6	457.0	38.4	17.4	290.0	100.0	173.0	41.6
8.04	80.4	18.3	26.0	0.03	74.6	507.0	51.4	9.1	99.5	32.0	125.0	7.9
7.00	82.0	14.1	18.6	0.03	75.8	501.0	39.9	8.1	97.8	24.3	112.0	6.0
8.94	96.1	19.7	18.3	0.03	71.8	444.0	48.1	9.5	87.5	30.2	135.0	10.2
<0.08	4.5	0.2	0.2	0.05	42.5	7.7	1.2	0.1	<3.1	<0.4	1.2	0.1
8.52	90.6	18.3	99.8	0.19	67.2	952.0	25.7	9.3	149.0	38.5	124.0	24.3
0.06	4.7	3.6	41.7	0.39	2.4	1.7	3.9	0.4	91.9	24.7	0.9	2.6
0.04	0.7	3.1	17.5	<0.02	1.9	1.1	2.6	0.3	75.7	1.3	0.7	1.8
0.14	5.4	3.6	14.3	0.08	2.5	1.9	5.2	0.5	59.4	15.9	1.8	1.8
0.14	1.6	3.4	14.4	<0.02	2.7	1.8	4.2	0.5	54.5	3.5	1.8	1.5
0.65	14.4	3.8	7.7	0.05	7.2	3.7	3.5	1.2	49.5	20.3	7.5	1.1
0.55	12.5	3.4	7.6	0.03	6.9	2.2	3.0	1.1	45.3	7.4	6.2	0.9
0.10	17.4	4.3	7.3	0.31	7.3	4.1	8.1	0.6	62.5	23.1	1.3	1.2
0.13	17.3	4.9	9.6	0.05	7.3	3.1	3.7	1.0	66.0	13.8	1.6	1.0
0.05	3.0	2.8	15.3	0.12	2.0	3.2	0.2	0.2	25.9	6.6	0.6	0.3
0.05	2.7	3.0	16.2	0.07	1.7	3.4	0.2	0.2	27.1	5.6	0.6	0.3
0.12	5.4	3.1	24.2	0.15	2.6	6.7	0.5	0.4	65.5	17.7	1.4	0.7
0.12	3.4	2.8	13.3	0.10	2.3	6.4	0.4	0.4	56.7	6.3	1.3	0.6
0.34	13.4	5.2	22.3	0.24	3.8	10.8	0.6	0.6	85.7	10.6	3.4	1.6
0.37	8.7	4.2	19.4	0.09	3.6	11.8	0.6	0.7	87.3	8.2	4.0	1.6
0.06	4.0	3.4	22.3	0.24	2.3	1.6	3.4	0.3	87.0	19.7	0.9	2.5

Cs ppm	Cu ppm	Ga ppm	Ge ppm	Hg ppm	Li ppm	Mn ppm	Mo ppm	Nb ppm	Ni ppm	Pb ppm	Rb ppm	Sb ppm
1.91	61.0	7.5	20.7	0.06	45.9	8.3	2.9	2.5	42.4	22.0	21.2	5.2
1.74	51.3	6.9	22.5	0.07	39.8	7.4	2.7	2.2	38.0	21.2	19.5	4.8
1.14	34.1	5.3	20.0	0.05	26.7	6.1	3.2	1.8	35.8	20.5	12.5	3.4
1.00	28.9	4.6	16.2	0.04	25.3	4.4	2.1	1.6	32.5	14.4	10.7	2.8
1.01	18.5	4.2	19.1	0.06	15.7	7.3	1.9	1.4	61.3	10.3	13.4	2.7
0.98	15.6	4.4	22.1	0.06	15.0	6.8	2.0	1.4	57.2	10.8	12.5	2.9
1.79	65.3	6.4	19.9	0.06	59.1	8.7	2.9	2.4	42.2	25.5	19.3	3.7
1.60	49.8	5.8	15.0	0.07	40.4	7.0	2.8	2.0	42.2	24.0	17.3	3.7
1.43	7.4	4.0	30.3	0.07	9.8	21.1	1.5	2.6	12.8	4.1	23.3	0.2
1.16	6.6	3.2	24.1	0.05	7.2	11.7	1.0	2.2	11.3	3.1	18.2	0.2
0.84	3.9	1.6	5.0	0.04	4.6	10.9	0.9	0.9	7.8	1.8	11.3	0.1
0.89	3.0	1.7	6.6	0.04	4.0	7.9	0.9	0.9	7.4	1.9	12.4	0.1
1.37	8.0	2.0	1.0	0.11	10.3	13.8	6.0	1.0	9.2	2.9	14.4	0.2
0.70	8.0	1.6	1.0	0.06	5.9	11.4	3.3	0.9	10.0	2.2	7.7	0.2
1.35	4.6	2.8	3.8	0.05	6.1	22.2	8.9	1.5	8.8	2.9	23.1	0.8
1.25	4.9	2.4	3.1	0.04	5.1	16.3	7.5	1.4	8.7	2.7	20.9	0.7
1.50	49.3	5.3	18.1	0.07	39.4	6.8	2.7	1.9	39.9	20.8	16.4	3.3
1.32	4.6	2.7	4.0	0.06	6.5	23.1	8.6	1.4	8.9	3.0	22.7	0.8
0.48	4.1	2.9	17.5	0.23	7.5	11.7	0.6	1.9	11.8	42.2	6.9	1.4
0.53	5.1	3.2	24.0	0.22	6.2	8.2	0.8	3.7	17.1	52.8	7.2	1.9
0.23	3.2	0.9	1.6	0.16	2.8	7.3	0.3	0.5	3.7	4.8	2.3	0.1
0.20	3.7	0.9	1.6	0.13	2.3	4.1	0.4	0.5	3.9	5.5	2.0	0.1
0.70	2.9	1.7	3.0	0.07	4.2	4.4	0.4	0.8	7.9	4.6	7.4	0.1
0.72	2.9	1.7	2.5	0.07	4.0	4.3	0.4	0.8	7.3	4.3	7.6	0.1
0.70	6.1	2.5	24.7	0.05	5.5	7.6	1.5	1.4	42.7	6.0	8.8	1.5
0.82	6.9	2.8	29.1	0.05	6.1	7.9	2.0	1.5	52.9	6.1	10.4	1.9
2.23	11.9	7.2	53.4		14.9	64.4	10.5	3.2	54.6	14.7	33.3	11.0
2.15	6.0	4.5	12.8	0.04	13.3	45.7	2.0	1.6	19.7	7.5	31.8	4.0

Cs ppm	Cu ppm	Ga ppm	Ge ppm	Hg ppm	Li ppm	Mn ppm	Mo ppm	Nb ppm	Ni ppm	Pb ppm	Rb ppm	Sb ppm
1.69	6.8	3.9	14.5	0.05	11.7	28.9	3.6	1.5	16.0	10.4	24.0	3.5
1.18	13.3	4.1	28.7		11.2	70.1	6.3	1.2	34.4	35.0	15.1	7.8
2.94	4.9	10.0	7.4	0.04	158.0	17.6	1.0	5.2	16.7	19.5	32.2	0.5
0.45	10.5	6.8	52.2	0.07	35.2	9.9	1.2	1.5	46.1	11.1	5.5	1.7
0.49	18.0	5.1	24.1	0.06	9.0	7.3	1.0	0.8	55.0	6.5	4.2	2.5
0.69	45.3	5.2	36.7	0.10	11.4	9.0	1.1	1.2	84.8	12.6	6.5	3.6
0.17	11.1	5.4	68.6	0.03	2.3	7.8	0.4	0.5	81.7	18.7	1.9	5.4
0.79	12.2	5.1	43.8	0.03	3.7	2.7	0.4	0.8	59.6	7.8	7.1	5.0
1.38	22.1	4.9	34.8	0.02	7.9	6.3	0.5	1.2	57.5	10.2	10.8	4.6
0.60	52.8	4.2	30.0	0.16	16.6	3.1	0.6	1.3	62.9	40.6	5.1	4.5
0.98	8.7	4.7	20.3	0.09	11.8	41.4	2.8	1.4	22.3	34.4	13.5	0.4
0.75	3.7	3.8	6.7	0.06	18.6	8.6	0.5	2.5	9.8	7.9	9.2	0.2
1.38	130.0	8.8	2.2	0.08	90.3	9.3	1.5	4.6	37.5	33.0	13.6	0.9
0.39	24.8	5.7	13.5	0.08	19.2	9.4	0.7	1.5	56.4	24.9	3.7	1.2
1.45	6.6	2.5	33.5	0.05	5.1	17.6	21.3	1.2	12.7	3.8	22.7	4.8
1.47	6.7	2.5	36.4	0.05	4.8	15.4	21.6	1.4	12.5	4.2	22.8	5.1
1.22	10.2	2.0	4.7	0.07	7.8	12.9	6.2	0.9	10.7	2.3	14.3	0.4
0.96	10.0	1.9	5.3	0.07	6.5	12.0	6.5	0.9	11.1	2.4	11.5	0.4
1.19	4.1	2.2	11.8	0.09	7.3	37.6	2.6	0.8	7.7	2.8	14.3	0.2
1.05	4.0	2.0	10.9	0.07	4.5	14.3	1.7	0.8	7.4	2.4	12.4	0.2
1.06	7.6	3.6	28.4	0.07	8.2	17.5	0.8	1.2	6.8	4.7	17.5	0.2
1.06	7.6	3.5	28.1	0.07	7.4	15.6	0.8	1.2	7.2	4.7	17.6	0.2
0.54	13.5	4.3	5.2	0.03	4.2	2.0	6.4	1.0	11.0	4.0	7.1	2.2
0.59	11.6	4.3	5.4	0.03	4.1	1.9	5.8	1.0	9.0	3.8	7.6	2.1
0.46	14.1	4.5	6.0	0.05	11.0	4.7	2.9	1.4	16.8	6.4	4.6	1.4
0.43	10.7	4.0	5.2	0.05	9.1	3.3	2.5	1.4	16.3	5.5	4.0	1.2
2.40	64.6	8.4	7.2	0.23	32.4	27.1	3.6	2.8	30.7	40.6	33.7	3.0
1.87	22.8	7.2	27.3	0.07	23.1	21.1	0.9	2.4	94.0	41.0	27.3	4.4

Cs ppm	Cu ppm	Ga ppm	Ge ppm	Hg ppm	Li ppm	Mn ppm	Mo ppm	Nb ppm	Ni ppm	Pb ppm	Rb ppm	Sb ppm
6.52	59.0	16.7	2.5	0.19	56.2	35.6	37.5	7.3	76.0	23.2	112.0	2.7
1.70	29.0	6.0	2.7	0.21	46.5	26.9	22.0	3.1	79.1	22.7	26.4	3.1
0.85	10.8	3.4	11.9	0.19	11.1	36.6	1.2	0.9	20.4	68.6	9.2	0.8
0.14	5.1	2.6	1.9	0.15	10.0	22.1	4.2	1.4	15.4	5.8	2.1	0.7
0.84	5.1	2.2	2.8	0.11	10.5	41.8	2.7	1.1	5.2	3.0	12.0	0.1
0.65	4.4	1.7	2.4	0.09	5.7	11.7	1.8	0.9	4.2	2.4	9.1	0.1
1.06	9.9	3.7	11.4	0.05	9.8	26.6	1.8	1.6	4.7	5.5	16.8	0.1
0.98	9.3	3.0	9.0	0.05	6.8	13.1	1.2	1.3	4.7	5.6	15.5	0.1
1.40	23.8	6.5	25.5	0.07	12.1	25.0	2.3	1.5	15.6	16.7	14.5	0.3
1.26	22.7	5.8	24.7	0.06	9.3	10.7	1.8	1.3	16.8	11.6	13.4	0.3
1.14	4.6	3.1	8.5	0.42	12.9	30.2	2.0	1.0	22.2	49.5	18.7	0.2
1.41	6.5	4.0	15.0	0.19	8.4	20.6	0.8	1.5	24.0	45.5	23.7	0.2
0.82	8.4	4.2	22.3	0.07	4.9	26.7	0.9	0.9	36.9	43.3	11.8	0.8
0.70	7.9	3.3	17.8	0.10	4.3	15.1	0.8	0.9	37.0	29.9	10.3	0.6
1.71	23.8	6.6	26.3	0.06	22.5	26.3	0.7	2.2	95.9	38.0	25.0	4.2
1.50	34.0	6.1	7.9	0.07	15.6	17.1	2.3	2.5	29.3	17.3	18.6	2.1
1.21	12.0	5.6	15.6	0.22	16.9	19.3	0.6	1.9	65.1	14.9	14.6	2.9
1.11	12.6	5.3	14.3	0.18	16.8	12.4	0.7	1.9	62.4	13.9	13.3	2.7
0.39	7.5	3.1	1.6	0.18	27.8	57.7	4.5	2.2	17.5	5.7	6.5	0.7
0.84	8.3	3.1	12.0	0.13	7.6	12.7	0.8	0.9	16.1	33.0	9.1	0.7
0.59	15.3	3.0	17.2	0.15	18.6	25.4	1.0	0.7	22.2	21.5	5.3	0.8
0.53	12.9	2.7	16.0	0.12	16.2	14.1	0.8	0.6	20.2	20.3	4.8	0.6
0.90	20.1	3.6	25.3	0.10	9.1	29.2	1.5	1.7	54.0	15.0	11.1	1.9
0.87	15.5	3.3	24.5	0.09	6.5	15.1	1.4	1.6	49.4	15.7	10.3	1.8
1.14	11.9	6.1	81.0	0.09	7.4	39.9	1.2	3.1	31.7	34.0	14.3	8.8
1.13	9.0	5.8	86.2	0.10	6.0	21.6	1.2	2.8	30.7	37.2	12.6	8.2
0.96	6.3	2.5	11.3	0.11	6.3	23.3	2.4	1.1	8.6	5.4	10.8	0.3
2.29	15.2	4.4	14.0	0.16	14.9	53.0	2.6	1.8	9.7	10.3	29.8	0.2

Cs ppm	Cu ppm	Ga ppm	Ge ppm	Hg ppm	Li ppm	Mn ppm	Mo ppm	Nb ppm	Ni ppm	Pb ppm	Rb ppm	Sb ppm
9.04	46.4	18.7	3.7	0.06	97.6	2790.8	2.7	8.6	50.9	25.6	124.4	1.0
0.66	4.7	1.6	6.5	0.24	6.4	29.4	18.4	1.2	8.4	3.1	6.3	6.7
0.74	3.4	1.3	0.5	0.12	6.9	199.6	2.6	0.6	3.1	3.9	7.0	0.3
1.38	11.4	2.5	14.2	0.34	11.5	56.0	4.5	1.4	21.4	62.2	14.6	0.9
10.20	145.9	15.9	1.7	0.21	41.2	247.8	467.4	7.3	280.0	35.9	160.7	24.9
2.18	17.5	4.7	8.4	0.15	15.8	47.0	3.4	2.0	13.6	5.9	29.2	0.2
1.04	10.7	2.8	3.3	0.22	16.2	282.7	4.6	1.1	11.4	17.1	8.1	0.6
1.02	10.7	1.9	0.2	0.09	19.7	18.6	1.4	1.0	8.0	3.4	7.0	0.2
1.37	28.3	3.1	13.8	0.06	14.7	34.8	4.9	1.5	29.3	17.6	12.2	1.4
1.33	5.9	2.8	5.5	0.07	9.7	24.9	9.2	1.7	5.1	7.1	12.9	1.2
1.00	4.7	1.6	1.5	0.19	7.6	51.2	1.5	0.9	9.4	11.3	9.2	0.2
1.20	11.0	3.1	21.0	0.13	11.1	55.1	2.3	1.4	20.1	22.2	12.9	0.5
10.78	103.7	16.1	2.5	0.30	47.2	333.1	307.6	7.1	181.2	30.4	161.5	17.5
1.84	12.9	4.6	21.8	0.12	13.0	46.0	7.9	1.6	12.5	25.6	17.3	0.4
10.15	62.4	18.4	2.3	0.20	53.7	635.3	113.3	7.9	121.0	66.2	170.2	5.6
9.59	137.5	15.4	1.5	0.34	43.1	289.8	265.2	6.4	262.0	74.1	152.0	27.8
9.48	91.6	15.3	13.3	0.32	35.1	224.4	462.5	6.9	238.5	51.4	143.1	27.3
1.54	8.6	2.9	7.9	0.05	9.6	27.5	6.0	1.8	5.5	16.0	16.8	3.2
1.09	4.0	1.4	1.4	0.14	7.6	40.8	2.7	0.9	4.0	11.6	9.8	0.6
1.16	8.3	2.5	19.2	0.22	9.1	48.4	1.5	1.3	14.6	45.2	13.7	0.6
10.49	117.6	15.1	2.2	0.21	41.3	358.5	374.4	7.0	248.2	36.6	166.2	23.4
4.37	28.5	11.3	38.2	0.21	9.9	142.0	99.2	3.0	62.5	84.5	40.2	11.8
12.85	90.6	21.2	2.1	0.32	66.7	230.1	382.6	9.9	180.6	66.9	214.3	18.4
1.20	7.1	2.3	7.2	0.08	11.7	29.1	22.0	1.5	7.7	43.3	11.1	1.8
1.20	4.8	1.8	1.6	0.09	4.3	18.7	2.8	0.8	3.6	33.9	11.7	0.2
2.80	12.3	6.5	5.9	0.06	17.9	39.6	2.0	2.9	10.9	10.6	23.2	0.2
1.67	13.4	3.7	22.7	0.10	8.6	31.3	12.1	2.1	17.2	10.4	18.5	0.6

Cs ppm	Cu ppm	Ga ppm	Ge ppm	Hg ppm	Li ppm	Mn ppm	Mo ppm	Nb ppm	Ni ppm	Pb ppm	Rb ppm	Sb ppm
0.29	7.7	3.3	1.2	0.03	6.2	5.4	0.8	1.5	6.6	4.1	4.0	0.2
0.36	18.9	3.0	1.0	0.67	17.0	159.1	15.1	1.1	22.7	22.0	6.7	1.0
0.37	9.4	4.3	1.7	0.09	7.9	5.5	1.0	2.0	7.3	5.3	5.1	0.3
0.19	4.5	1.9	0.7	0.18	3.7	2.8	0.3	0.9	3.8	2.2	2.6	0.1
0.34	9.8	4.1	2.0	0.12	7.8	7.2	0.7	1.7	8.4	5.1	4.6	0.3
0.24	7.5	2.8	1.0	0.12	6.5	5.4	0.6	1.4	5.6	4.6	3.4	0.2
0.13	5.4	1.8	0.6	0.08	4.2	3.6	0.4	0.9	3.5	2.6	1.7	0.1
0.31	8.0	3.3	0.9	0.36	6.6	11.5	0.7	1.7	5.1	4.8	4.3	0.2
0.24	6.5	2.3	0.9	0.52	4.8	7.4	0.6	1.0	5.7	3.4	3.6	0.2
0.79	10.5	5.4	3.2	0.26	5.6	8.1	0.8	1.4	10.4	5.6	11.6	0.4
0.03	2.5	0.6	0.1	0.03	2.6	1.9	0.4	0.2	2.1	1.1	0.5	0.1
0.03	3.0	0.8	0.3	0.02	2.9	2.0	0.3	0.4	3.3	1.5	0.6	0.0
0.04	5.2	1.2	0.3	0.03	4.9	1.6	0.3	0.8	4.6	2.5	0.7	0.1
0.24	12.6	3.2	0.5	0.10	7.6	2.5	0.5	2.3	6.7	6.1	3.7	0.1
0.58	6.7	5.3	1.7	2.70	5.2	4.4	0.4	2.7	5.2	5.8	6.1	0.2
0.39	16.4	2.8	1.0	0.36	16.6	151.3	7.0	1.2	21.2	21.6	6.5	0.9
0.21	5.7	2.1	0.8	0.34	4.0	5.9	0.5	0.9	5.0	3.0	3.2	0.2
5.88	110.7	40.9	24.9	<0.02	117.6	136.6	5.0	31.6	102.7	28.0	85.2	3.0
4.90	116.7	37.2	17.2	0.22	109.6	99.8	7.5	26.3	95.3	52.3	70.9	2.0
5.10	119.5	39.4	17.9	0.18	107.2	109.0	11.7	28.3	96.7	55.9	74.8	2.9
4.84	115.1	37.3	17.0	0.40	105.1	93.4	8.7	27.1	90.9	53.8	71.8	2.3
4.71	115.1	35.1	15.9	0.23	106.4	98.5	7.8	26.0	95.9	53.6	69.9	2.0
5.13	107.1	36.3	16.6	0.18	108.0	99.1	7.6	27.5	95.6	49.5	75.6	2.0
4.76	107.5	33.7	14.6	0.12	106.6	98.7	7.0	25.7	96.0	45.3	71.2	1.9
4.49	113.2	31.7	14.1	0.40	99.0	93.2	6.7	23.9	84.9	46.0	67.1	1.7

Cs ppm	Cu ppm	Ga ppm	Ge ppm	Hg ppm	Li ppm	Mn ppm	Mo ppm	Nb ppm	Ni ppm	Pb ppm	Rb ppm	Sb ppm
4.39	100.7	31.5	14.8	0.17	98.2	94.7	6.8	23.7	88.7	42.5	65.6	1.7
6.79	234.9	117.0	78.7	0.72	137.5	119.7	36.3	34.6	183.1	159.8	88.2	9.6
6.88	224.0	121.7	84.2	0.76	135.8	118.2	36.4	35.5	184.3	164.1	92.6	9.6
7.14	260.8	148.2	116.1	1.40	145.6	142.0	49.0	34.8	219.7	185.7	91.1	13.9
7.07	241.3	136.1	97.2	0.95	141.4	126.4	40.1	35.7	204.2	177.7	91.1	11.3
8.49	359.4	210.4	272.8	0.50	175.8	231.2	69.5	30.2	308.3	242.5	103.9	38.7
7.09	275.8	154.6	126.4	1.60	146.9	147.7	47.1	32.5	225.5	192.2	89.7	16.4
4.74	85.1	24.4	11.4	<0.02	104.3	124.2	3.2	24.1	85.5	24.4	70.2	1.1
4.66	105.8	35.4	16.7	0.35	98.3	106.6	7.4	25.9	90.8	48.9	68.9	1.9
6.87	265.8	143.6	109.7	1.50	141.8	161.5	42.3	33.4	218.5	182.9	88.9	13.6
2.07	30.9	15.1	15.7	0.46	59.3	13.0	14.9	3.3	18.3	9.3	20.6	2.7
2.23	31.6	16.6	16.1	0.45	60.3	14.0	16.2	2.8	18.2	10.1	22.5	2.8
1.03	4.9	5.7	1.3	0.12	13.4	9.1	2.1	1.7	8.8	3.5	9.0	0.3
0.87	30.4	6.3	1.4	0.40	34.1	9.7	2.5	2.2	17.3	9.2	10.1	0.8
1.88	37.4	10.4	2.0	0.38	57.5	16.2	2.8	4.6	25.3	18.3	21.6	1.1
5.80	62.5	22.3	3.8	0.77	157.0	41.0	4.1	12.1	51.1	43.7	64.7	1.6
6.76	78.5	26.8	3.8	0.60	233.0	47.2	4.4	17.4	70.3	47.1	68.4	1.4
2.26	35.6	9.8	2.1	0.37	70.0	14.3	2.3	5.1	22.5	14.1	25.4	0.9
1.78	6.5	6.5	5.5	0.26	11.9	95.5	4.8	3.0	42.6	6.8	22.3	1.6
0.68	5.3	2.8	1.3	0.03	8.2	6.4	1.4	1.4	14.0	3.3	8.5	0.4
4.03	50.3	10.1	1.5	0.17	57.3	48.4	4.0	3.8	27.7	13.3	50.0	1.2
1.45	26.4	7.8	2.8	0.28	27.4	81.3	3.3	2.6	19.3	8.7	17.2	1.0
2.89	12.9	8.5	11.6	0.25	18.3	123.0	4.5	4.6	42.3	8.4	39.8	1.5
2.03	10.3	5.2	1.8	0.05	13.0	14.4	1.5	2.6	17.7	6.6	26.4	0.5
5.81	54.2	14.0	2.0	0.16	58.5	187.0	2.8	5.3	35.9	16.7	75.7	1.3
0.69	14.0	4.0	1.4	0.26	15.1	10.1	2.6	1.4	12.2	5.7	7.3	0.5
1.71	19.3	6.7	3.8	0.43	25.0	33.7	2.2	2.6	15.4	10.3	21.2	0.7
1.77	31.6	8.4	3.5	0.28	45.4	15.7	2.2	3.6	20.4	13.6	20.4	1.1

Cs ppm	Cu ppm	Ga ppm	Ge ppm	Hg ppm	Li ppm	Mn ppm	Mo ppm	Nb ppm	Ni ppm	Pb ppm	Rb ppm	Sb ppm
8.74	49.9	17.9	3.6	0.54	110.0	179.0	7.3	7.0	53.1	32.2	116.0	1.2
4.88	34.1	14.0	9.8	0.18	66.3	72.8	3.9	5.8	51.4	18.4	59.9	2.1
1.43	17.0	6.3	2.9	0.45	19.4	28.0	2.3	2.6	13.9	6.1	17.9	0.7
2.65	23.0	7.3	3.4	0.19	23.6	15.1	2.3	3.6	18.4	11.1	33.4	1.2
0.19	5.5	2.5	0.2	0.22	12.4	1.5	0.3	1.1	2.9	2.5	2.2	0.2
1.15	21.7	6.3	7.0	0.22	24.1	13.5	2.5	2.0	13.3	11.7	14.7	0.9
1.81	27.9	8.4	7.2	0.29	34.7	42.4	3.4	3.1	20.2	18.8	20.8	1.3
6.70	53.3	18.9	11.2	0.31	116.0	127.0	3.3	6.8	48.4	42.2	99.7	1.9
3.19	30.6	10.4	4.3	0.23	59.5	137.0	2.0	3.1	22.6	14.7	48.4	0.6
0.77	15.3	8.5	21.3	0.29	17.4	34.4	2.7	1.4	18.9	6.8	9.0	2.8
0.97	6.1	4.3	1.4	0.22	11.5	10.4	1.2	1.2	11.4	4.6	10.9	0.7
3.40	29.3	9.5	4.0	0.14	43.5	32.2	1.5	3.9	23.2	13.4	42.3	1.1
3.57	25.6	9.8	3.6	0.12	51.2	39.8	1.4	3.7	22.8	13.8	40.1	1.0
0.86	8.3	3.8	2.8	0.11	12.6	12.4	1.1	1.4	13.1	4.9	9.9	0.7
8.60	59.2	20.9	3.2	0.24	128.0	191.0	2.3	9.6	44.3	35.8	103.0	1.5
0.46	35.9	5.3	1.0	0.13	36.0	7.7	3.2	1.4	9.2	9.7	4.6	1.4
0.34	9.8	2.0	5.8	0.02	6.7	6.5	1.2	0.8	12.5	2.9	3.9	0.5
1.24	15.1	5.5	1.9	0.50	21.4	7.8	2.4	1.4	13.4	4.6	7.3	0.8
0.77	26.6	4.5	3.1	0.09	12.2	7.3	1.7	1.6	20.0	6.2	8.1	0.7
0.88	9.2	2.0	1.8	0.01	8.5	13.6	0.6	0.6	12.1	3.6	3.4	0.4
1.77	29.5	4.3	3.1	0.10	26.0	21.0	2.8	1.2	13.3	6.5	11.0	2.3
0.66	17.7	4.6	1.8	0.05	15.5	7.9	1.2	0.4	13.5	6.9	7.5	0.4
0.05	6.3	2.8	10.7	0.02	1.8	2.2	0.4	1.0	8.9	2.0	0.7	1.1
0.51	19.8	2.5	1.6	0.23	8.2	18.4	2.7	0.8	11.0	3.8	5.2	1.0
0.14	22.9	5.1	3.1	0.03	5.6	4.4	2.3	0.7	9.7	4.8	1.5	1.0
1.76	7.2	5.1	3.2	0.09	27.1	34.1	0.8	2.0	10.5	6.2	23.5	0.1
0.44	23.4	5.9	1.4	0.07	20.6	4.1	1.1	2.4	9.9	9.2	6.7	0.5
1.32	23.8	7.5	1.1	0.20	34.5	8.1	2.0	2.7	14.9	11.5	15.8	0.7

Cs ppm	Cu ppm	Ga ppm	Ge ppm	Hg ppm	Li ppm	Mn ppm	Mo ppm	Nb ppm	Ni ppm	Pb ppm	Rb ppm	Sb ppm
0.24	15.0	3.1	0.7	0.08	13.3	3.0	1.0	1.7	11.6	5.8	3.5	0.3
1.56	25.6	9.2	2.4	0.08	24.6	12.2	2.2	2.0	14.5	8.8	19.6	1.4
2.66	30.7	11.1	2.0	0.16	47.9	23.3	1.8	4.5	20.1	15.1	42.8	1.0
3.22	25.1	9.2	1.6	0.06	39.4	10.4	1.2	5.7	19.5	13.1	45.3	1.2
3.10	25.4	11.8	1.9	0.15	63.7	24.0	1.7	4.3	19.2	13.6	49.6	0.9
0.88	11.2	3.4	8.5	0.24	7.6	34.1	3.6	1.3	11.9	4.8	13.1	0.4
3.43	15.7	11.4	1.8	0.22	38.9	45.2	2.4	4.5	19.8	13.4	54.1	0.8
2.65	26.5	10.2	1.7	0.24	27.6	22.6	1.9	4.1	19.9	13.1	39.0	1.0
1.11	18.5	6.4	1.0	0.05	21.1	25.5	1.6	2.8	16.2	7.7	16.1	0.7
2.02	7.3	10.1	1.6	1.30	28.7	16.4	1.4	2.7	20.4	7.2	30.7	0.5
4.65	16.2	13.0	2.1	0.05	35.0	83.7	1.3	5.4	15.8	12.3	>60.4	0.8
0.04	19.2	3.1	0.6	0.02	13.3	3.9	0.5	2.3	14.0	5.5	0.5	0.2
4.00	22.1	14.3	2.1	0.09	115.0	22.0	1.5	7.6	17.6	16.7	54.1	1.0
0.49	17.8	4.6	0.9	0.09	20.2	5.5	2.1	1.4	12.7	4.1	5.6	0.8
0.38	26.8	4.8	0.5	0.06	19.5	2.3	1.0	3.1	13.4	9.4	4.6	0.5
0.75	30.1	6.2	1.3	0.04	26.8	3.1	1.0	2.8	17.6	11.2	7.1	0.7
0.26	30.5	10.6	7.0	0.16	23.2	5.6	0.5	2.6	18.2	9.0	5.8	0.7
0.91	17.7	7.7	4.1	0.24	23.3	31.2	1.8	4.6	26.5	11.9	11.3	1.2
1.17	30.1	5.1	5.3	0.02	13.3	5.9	1.8	1.3	21.8	11.4	14.0	2.0
3.01	20.3	9.8	1.5	0.17	31.5	245.0	1.6	5.6	19.3	12.5	41.3	0.8
5.26	31.0	13.5	2.5	0.05	35.6	148.0	1.2	6.2	18.8	18.0	76.2	1.0
0.26	13.0	3.4	0.5	0.14	10.8	3.1	1.2	1.9	9.8	5.5	4.0	0.3
0.42	29.4	5.7	1.9	0.02	27.1	9.1	0.9	3.4	17.9	10.7	6.2	0.8
0.36	21.3	5.1	2.0	0.10	7.5	7.4	2.2	1.3	17.0	7.1	5.0	1.7
0.54	17.3	4.6	1.8	0.11	11.4	3.2	1.7	1.1	14.4	5.0	6.0	0.9
3.18	18.0	8.1	1.2	0.05	33.6	14.0	1.3	4.2	14.0	11.7	34.2	0.6
4.37	31.6	11.7	4.0	0.13	65.0	17.9	1.9	5.9	35.7	16.9	51.9	1.2
1.40	20.7	6.7	1.1	0.20	47.5	11.2	1.6	3.8	15.1	10.2	15.7	0.5

Cs ppm	Cu ppm	Ga ppm	Ge ppm	Hg ppm	Li ppm	Mn ppm	Mo ppm	Nb ppm	Ni ppm	Pb ppm	Rb ppm	Sb ppm
0.65	3.7	2.9	1.5	0.16	7.9	110.0	0.8	5.7	6.7	4.1	7.6	0.4
2.79	23.4	10.7	13.6	0.15	107.0	12.8	8.3	20.9	21.2	14.5	32.0	2.1
1.61	10.0	5.7	0.8	0.28	32.5	23.5	1.3	11.1	13.4	7.5	22.4	0.3
0.20	71.0	4.4	0.5	0.25	53.1	23.1	1.2	29.3	9.7	22.9	2.8	0.4
1.96	52.4	10.9	2.4	0.04	52.4	8.6	1.5	23.5	22.7	21.0	30.6	0.9
0.49	27.9	6.5	1.2	0.06	37.5	7.0	1.5	16.1	16.1	11.9	7.3	0.7
0.46	157.0	2.9	0.6	0.02	9.1	4.9	0.6	6.3	8.3	4.6	5.7	0.3
0.48	21.2	3.7	2.6	0.17	20.0	17.6	1.0	6.4	7.0	7.4	7.1	0.7
2.70	34.0	9.6	1.2	0.18	25.0	38.8	1.7	11.5	24.6	11.9	42.4	1.3
1.28	33.5	8.1	1.4	0.07	21.5	6.8	1.6	17.7	15.3	11.5	17.3	0.7
0.92	27.2	7.6	1.0	0.04	25.0	4.2	1.5	13.3	13.7	13.0	9.6	0.5
3.25	22.5	8.8	3.7	0.05	84.0	19.0	1.0	16.8	19.0	10.9	34.5	0.8
2.03	11.2	5.5	0.7	0.12	21.7	21.2	0.8	12.3	13.1	7.4	25.5	0.3
1.47	15.2	4.6	1.4	0.29	24.6	42.5	0.5	10.7	8.9	5.9	13.1	0.3
1.44	5.9	4.5	1.6	0.19	22.2	14.2	1.1	9.2	9.3	5.8	15.3	0.3
1.31	5.2	4.3	2.4	0.28	24.3	11.8	1.0	9.0	9.4	5.0	13.8	0.4
0.37	1.9	1.8	0.9	0.23	3.4	17.6	0.9	3.5	3.9	1.8	4.2	0.1
4.60	23.5	15.7	5.9	0.10	151.0	32.0	2.1	32.8	19.0	16.3	57.6	1.0
0.33	6.6	4.5	18.9	0.10	10.4	5.2	11.9	7.4	24.7	4.4	5.4	4.3
1.83	15.3	7.9	6.6	0.73	27.5	69.6	5.0	15.8	27.3	10.1	24.5	1.0
1.86	12.6	5.9	1.4	0.29	29.3	30.1	2.1	15.8	13.8	9.2	25.8	0.6
0.98	4.7	4.7	1.6	0.39	20.7	28.7	1.7	6.2	17.4	6.3	13.5	0.5
0.49	20.2	3.9	2.7	0.16	19.2	17.4	1.1	7.0	6.2	7.7	7.8	0.7
1.37	43.6	8.1	1.5	0.07	29.6	7.4	2.2	14.6	21.4	10.9	16.9	0.7
0.05	10.9	1.6	0.2	0.02	10.7	1.9	0.7	4.0	11.5	4.0	0.9	0.2
1.44	19.8	5.8	3.3	0.08	12.9	10.5	2.6	6.4	14.1	6.1	17.4	1.4
2.59	24.6	7.6	2.7	0.08	42.0	9.2	2.3	19.2	16.6	9.9	28.5	1.0
4.11	32.4	12.0	2.8	0.35	38.8	15.7	3.0	19.6	24.2	15.2	56.1	1.4

Cs ppm	Cu ppm	Ga ppm	Ge ppm	Hg ppm	Li ppm	Mn ppm	Mo ppm	Nb ppm	Ni ppm	Pb ppm	Rb ppm	Sb ppm
2.50	13.5	6.3	0.9	0.20	25.6	9.8	2.0	13.2	15.7	7.3	>29.4	0.7
0.28	11.6	3.2	0.7	0.06	7.4	2.4	1.0	5.9	17.7	4.2	4.0	0.5
0.05	14.8	1.3	0.2	<0.02	7.3	0.9	0.7	4.7	18.2	3.4	0.7	0.2
4.53	19.1	9.4	1.8	0.13	27.0	13.8	0.8	24.5	15.0	11.6	>49	0.5
2.68	25.7	10.0	1.8	0.06	42.4	19.9	1.0	24.7	17.4	12.9	35.7	0.6
2.05	25.9	9.7	1.3	0.04	35.9	10.2	1.5	21.0	11.2	13.1	25.3	0.7
2.71	23.0	11.0	2.7	0.06	70.3	12.0	1.5	23.2	19.0	13.1	37.8	1.0
1.33	26.1	4.5	0.6	0.07	19.2	4.0	1.2	13.9	11.7	8.6	20.5	0.6
0.73	19.8	3.6	0.4	0.27	15.4	2.5	3.3	7.5	9.6	6.1	10.8	1.5
0.75	16.1	3.8	0.4	0.18	15.5	3.3	1.6	10.9	9.7	4.9	10.0	0.6
1.16	20.2	4.2	0.6	0.10	12.5	3.2	2.6	6.7	16.4	5.9	14.3	1.5
0.20	38.2	4.0	0.5	0.11	25.9	2.0	2.3	12.3	18.6	9.0	3.4	0.7
0.86	47.7	6.5	1.2	0.14	25.8	3.4	2.7	11.1	19.1	10.8	13.7	1.3
0.08	14.9	1.4	0.2	0.20	6.2	0.9	1.9	3.3	9.6	3.4	1.2	0.6
0.29	18.0	2.6	0.8	<0.02	5.9	3.0	1.2	4.0	6.8	3.6	3.5	0.5
0.10	24.9	4.9	0.9	0.04	12.3	3.7	1.4	12.4	11.3	7.2	1.7	0.4
4.58	19.9	9.4	1.5	0.13	28.5	14.7	0.8	24.5	15.7	11.7	>49.2	0.5
0.72	23.0	5.4	1.1	0.09	22.9	6.4	1.4	2.9	13.6	12.1	10.9	0.7
0.90	24.1	8.4	2.4	0.05	43.2	9.6	1.4	5.0	12.7	16.0	13.4	0.9
0.78	21.4	5.8	1.0	0.13	23.9	4.2	2.1	3.4	9.7	9.8	10.6	0.7
3.57	26.1	13.6	1.8	0.20	38.7	14.1	1.8	6.5	22.5	21.0	51.1	0.9
1.15	24.6	7.6	1.3	0.09	33.0	61.1	1.5	3.9	14.3	13.4	18.2	0.8
0.71	18.1	9.2	3.5	0.03	23.6	4.6	1.2	3.1	16.6	10.1	10.8	1.5
1.06	28.0	7.8	1.6	0.20	30.3	23.7	2.2	3.0	18.3	10.7	17.0	1.0
3.22	17.0	10.0	1.3	0.08	52.3	25.8	1.6	4.8	18.8	13.9	49.7	0.8
1.79	23.2	9.0	1.5	0.05	57.5	14.6	1.7	3.1	16.1	13.8	23.7	1.0
2.33	28.9	11.2	2.5	0.20	45.7	20.7	1.4	4.8	17.2	16.7	31.6	1.0
1.43	13.4	8.1	0.8	0.04	39.3	20.3	1.2	4.8	18.2	9.9	19.9	0.3

Cs ppm	Cu ppm	Ga ppm	Ge ppm	Hg ppm	Li ppm	Mn ppm	Mo ppm	Nb ppm	Ni ppm	Pb ppm	Rb ppm	Sb ppm
2.49	12.7	8.2	1.0	0.06	39.2	22.7	0.8	3.8	16.8	9.5	38.5	0.6
0.73	15.2	5.0	0.9	0.04	17.8	18.6	1.1	3.1	14.8	8.7	11.3	0.3
4.03	20.2	11.8	1.2	0.05	78.9	14.4	0.9	6.1	22.3	13.4	55.6	0.7
1.87	13.0	5.5	0.6	0.05	17.2	6.7	0.9	2.8	11.0	7.2	26.5	0.5
0.31	16.0	4.2	1.4	<0.02	8.0	2.9	1.3	1.1	18.3	4.6	4.5	0.8
3.44	29.6	9.4	1.1	0.25	20.7	24.9	2.6	3.0	26.6	15.0	51.1	1.5
2.48	26.6	8.1	1.0	0.12	19.1	13.1	1.5	4.3	16.7	13.7	38.9	0.9
0.08	15.4	3.3	0.9	0.02	7.4	3.9	0.9	1.8	11.8	5.6	1.8	0.4
1.94	12.2	5.5	1.0	0.09	17.3	19.9	1.9	2.2	12.9	6.5	28.9	0.8
0.59	16.3	3.2	1.0	0.04	14.7	6.6	1.0	1.8	11.4	6.5	8.1	0.4
0.82	22.5	4.9	1.3	0.02	9.6	4.8	1.5	1.5	14.5	6.0	10.8	0.8
5.95	28.9	13.5	1.8	0.04	36.9	31.8	0.9	5.6	33.7	17.5	>63.6	0.8
6.91	22.1	18.2	1.8	0.11	39.9	43.2	1.2	10.3	27.1	17.0	85.1	1.2
1.57	11.1	6.7	0.8	0.04	11.2	6.8	1.2	2.7	19.9	5.7	19.7	0.3
5.32	16.9	11.0	1.1	0.09	21.8	15.8	0.9	6.3	19.1	12.5	>63	0.6
2.40	23.2	13.8	3.5	0.05	60.3	53.8	2.7	6.6	31.1	16.5	39.2	1.4
0.82	13.5	6.5	1.1	0.23	20.2	23.4	1.6	3.3	15.8	9.4	13.6	0.6
0.46	21.1	8.1	2.6	0.35	30.0	18.7	1.5	7.2	22.6	19.5	7.6	0.9
2.03	12.7	9.2	2.3	1.10	67.2	47.6	2.2	5.3	13.8	12.8	24.5	0.6
1.97	10.7	5.5	0.7	0.05	13.7	7.2	1.0	3.4	14.5	7.4	27.6	0.5
2.45	20.9	8.1	1.1	0.11	14.5	13.4	1.5	4.2	18.4	13.1	37.2	0.8
1.37	24.5	7.2	6.3	0.15	17.6	11.1	1.5	1.9	28.2	8.8	14.1	3.1
1.28	16.1	6.5	1.4	0.12	30.5	16.2	1.7	2.2	12.2	7.7	15.2	1.3
0.09	11.4	5.6	1.5	0.23	8.9	14.7	1.2	0.7	6.3	6.1	2.1	0.4
0.73	15.3	7.3	3.5	<0.02	8.7	10.0	2.3	0.9	7.4	5.7	8.8	1.4
0.19	13.9	2.3	1.5	0.04	5.3	6.8	1.6	0.5	16.5	2.6	2.9	0.9
1.83	41.8	7.1	8.1	<0.02	21.4	7.0	4.4	1.5	31.8	6.6	19.5	3.8
0.64	17.8	6.0	1.1	<0.02	22.2	5.7	1.9	2.3	17.3	7.0	9.1	1.0

Cs ppm	Cu ppm	Ga ppm	Ge ppm	Hg ppm	Li ppm	Mn ppm	Mo ppm	Nb ppm	Ni ppm	Pb ppm	Rb ppm	Sb ppm
3.34	70.1	11.0	4.4	0.14	47.7	41.8	5.5	3.3	29.8	21.0	53.0	4.7
1.39	36.3	6.1	3.5	0.04	15.8	29.3	2.8	1.6	16.1	10.3	22.9	2.0
2.32	56.5	9.6	5.5	0.30	25.6	48.8	4.3	2.6	25.0	16.0	37.7	3.1
0.34	29.6	7.7	2.1	0.03	19.4	8.6	1.3	2.5	18.1	16.3	6.4	1.4
2.75	22.6	7.5	0.9	0.02	44.4	24.2	0.9	2.9	16.4	10.2	31.6	0.7
1.75	148.0	14.0	6.9	0.02	155.0	12.2	2.1	8.3	23.0	32.7	21.7	2.2
0.96	16.1	5.9	4.0	0.28	16.5	12.8	0.5	2.0	4.9	6.1	13.3	0.6
1.84	35.4	9.4	3.6	0.20	25.2	27.4	2.3	2.0	14.5	10.5	30.2	1.8
1.82	49.2	15.5	1.6	0.13	66.8	55.2	3.7	4.8	20.6	20.0	23.3	1.2
0.66	18.8	8.1	1.1	0.54	19.9	25.4	2.5	2.9	12.3	8.3	10.0	1.2
1.08	36.8	14.3	12.4	0.51	21.1	28.8	3.1	4.6	36.4	18.4	17.0	1.9
0.92	5.7	4.0	2.8	0.12	15.8	18.4	0.9	1.6	6.2	3.7	9.5	0.3
3.64	18.4	9.5	2.2	0.04	26.7	12.2	1.3	4.9	15.1	12.6	55.0	0.7
1.74	11.1	5.5	4.3	0.16	25.9	34.0	3.2	2.4	13.2	6.5	18.8	0.7
1.40	7.1	4.3	5.3	0.04	13.7	13.4	0.8	2.5	10.4	4.1	15.3	0.6
0.66	6.1	2.9	1.8	0.09	12.8	29.4	0.5	1.2	5.1	3.4	7.3	0.3
0.46	4.5	2.0	3.8	0.07	8.2	27.8	0.6	0.8	3.9	2.4	4.9	0.1
1.22	23.3	11.1	1.7	0.64	36.3	36.5	2.7	5.2	19.1	9.7	14.6	1.8
1.99	41.6	15.0	2.5	0.66	65.0	8.7	4.0	5.5	42.6	28.6	27.4	1.4
3.55	26.8	8.9	2.1	<0.02	36.7	9.7	1.4	3.9	20.2	14.0	42.3	0.8
0.77	18.2	5.8	1.5	0.02	17.0	4.2	0.8	1.9	9.7	6.8	10.1	0.7
0.63	22.8	6.7	3.0	0.02	16.3	4.7	1.0	2.3	14.4	11.4	8.7	2.6
0.19	17.1	4.1	2.4	<0.02	8.8	77.3	0.5	1.5	15.1	6.0	3.2	1.0
2.49	23.0	6.2	3.1	0.26	31.0	21.5	1.4	2.1	31.3	6.6	33.5	1.1
0.23	17.8	4.2	1.5	<0.02	9.2	6.7	0.5	1.3	10.5	5.3	4.4	0.6
0.32	22.0	5.2	1.3	<0.02	21.7	3.3	1.3	2.4	14.8	8.1	4.9	0.4
0.48	6.9	2.7	2.5	0.24	13.7	18.9	0.7	1.3	6.6	3.6	5.4	0.2
3.34	22.7	11.6	6.5	0.22	31.6	65.0	2.9	4.5	19.6	12.1	52.6	1.3

Cs ppm	Cu ppm	Ga ppm	Ge ppm	Hg ppm	Li ppm	Mn ppm	Mo ppm	Nb ppm	Ni ppm	Pb ppm	Rb ppm	Sb ppm
1.87	29.9	9.5	6.0	0.05	27.0	11.9	1.5	1.8	13.3	9.5	13.2	0.6
0.27	63.5	13.6	20.5	0.07	9.3	4.3	10.8	1.4	31.0	5.4	4.2	3.3
1.10	28.3	14.2	13.1	1.17	24.9	21.8	8.1	3.3	25.1	13.9	12.9	2.7
0.46	50.1	8.5	7.7	0.35	21.1	12.8	5.5	1.4	29.2	8.7	5.2	1.8
3.05	21.8	13.3	3.6	0.01	31.6	45.1	2.1	5.3	31.2	11.4	43.9	1.0
0.69	12.2	3.9	0.8	3.83	12.8	21.7	1.9	0.9	22.1	3.6	8.8	0.4
0.40	41.7	12.9	6.6	3.77	20.8	25.4	5.8	5.3	74.7	16.9	7.2	2.4
1.55	37.5	20.9	4.0	0.14	48.7	75.6	2.4	10.7	20.3	24.5	25.9	1.3
1.15	11.2	7.3	11.1	0.54	10.8	27.9	7.8	1.2	16.3	6.7	15.4	1.4
4.86	26.4	14.9	41.0	1.98	141.9	91.4	31.4	5.8	36.5	15.5	78.2	2.1
0.36	38.3	15.5	14.8	1.09	38.9	19.3	4.8	9.2	43.8	35.6	7.3	1.9
2.22	102.3	15.0	33.8	0.09	14.7	6.0	4.9	1.9	49.8	18.2	24.5	4.2
3.09	75.6	19.7	9.4	0.35	48.9	141.2	9.9	2.8	40.5	24.5	43.6	3.5
0.81	120.5	20.7	21.4	4.88	41.6	16.4	11.9	2.0	43.6	161.2	9.3	3.0
2.11	8.3	4.0	7.0	0.15	17.9	34.3	2.6	2.2	10.5	5.2	23.1	0.2
2.30	7.6	5.1	6.8	0.19	49.1	44.5	1.5	2.4	11.5	5.4	20.0	0.2
2.32	12.3	6.5	5.2	0.12	43.9	41.5	2.6	3.0	12.6	7.0	30.8	0.7
1.27	7.2	3.4	7.0	0.25	12.3	30.4	3.8	1.9	9.4	4.2	13.1	0.2
0.76	6.4	3.6	2.9	0.11	15.3	5.2	0.9	1.8	4.7	4.6	9.4	0.4
0.50	6.9	2.4	0.6	0.10	11.1	9.5	1.0	1.2	6.2	3.0	6.2	0.2
0.51	7.2	2.8	2.8	0.26	14.2	19.2	0.7	1.4	6.8	3.4	5.6	0.2
2.23	31.2	11.7	1.4	1.18	44.0	14.1	3.0	4.6	37.7	14.8	24.3	0.6
1.21	18.3	7.9	7.5	0.53	23.6	16.6	3.0	2.6	31.7	8.8	14.3	0.9
2.62	39.2	16.3	2.8	0.75	41.8	14.9	2.9	10.1	24.5	20.7	34.9	0.8
0.08	11.7	5.3	1.6	0.02	9.8	2.8	1.3	0.4	23.7	2.9	1.2	0.6
1.33	16.0	5.7	0.8	0.02	30.5	5.5	1.0	3.6	15.4	8.0	16.3	0.3
1.77	15.4	6.0	0.8	0.03	25.2	7.7	2.1	2.5	12.9	6.1	21.6	0.8
0.08	8.8	3.4	0.6	0.19	7.2	3.0	1.8	1.4	17.2	3.8	1.2	0.8

Cs ppm	Cu ppm	Ga ppm	Ge ppm	Hg ppm	Li ppm	Mn ppm	Mo ppm	Nb ppm	Ni ppm	Pb ppm	Rb ppm	Sb ppm
0.35	11.5	2.7	0.6	0.03	4.8	2.3	3.2	0.6	10.7	3.2	3.8	0.6
6.12	17.9	10.5	1.9	0.03	33.3	22.4	1.0	6.0	14.0	11.5	86.6	0.5
2.46	14.9	5.8	3.6	0.04	15.2	8.0	2.3	2.3	15.7	6.2	31.2	2.0
8.95	20.3	15.6	1.8	0.03	34.9	46.1	0.7	8.6	16.1	14.4	125.3	0.6
0.30	11.6	2.5	0.6	0.03	8.9	1.8	1.1	0.6	14.3	4.0	4.0	0.4
0.95	29.8	6.8	3.1	0.02	19.3	4.5	1.0	2.8	16.9	9.1	10.9	1.0
0.87	15.2	4.7	0.9	0.24	9.1	11.2	1.8	1.3	19.6	6.2	12.3	0.6
0.76	16.2	8.6	2.6	0.02	12.3	14.4	1.3	2.0	24.7	6.8	9.6	1.0
1.08	9.6	4.4	1.3	0.02	15.3	5.5	1.2	1.3	13.9	5.3	12.6	0.4
0.34	14.0	3.3	1.6	0.01	8.4	11.6	1.6	0.7	17.0	4.1	5.1	0.5
2.48	35.7	19.9	13.1	2.04	90.4	14.8	8.5	8.4	31.7	24.8	30.0	3.5
1.91	35.3	8.9	8.6	1.01	22.1	111.8	13.2	2.7	50.6	10.9	24.6	2.7
1.54	36.9	22.9	22.6	1.65	43.8	12.2	8.6	6.4	39.6	18.7	22.2	2.9
1.76	33.0	9.2	3.8	0.53	31.6	12.7	4.4	2.5	14.2	8.6	20.0	1.3
1.39	33.6	10.3	5.3	0.46	16.0	15.0	3.4	3.1	40.6	14.1	20.0	1.9
9.32	20.9	15.7	1.8	0.03	35.8	46.4	0.6	8.3	15.8	15.0	122.0	0.6

Sc ppm	Se ppm	Sn ppm	Sr ppm	Te ppm	Th ppm	Tl ppm	U ppm	V ppm	Y ppm	Zn ppm	Zr ppm
3.8	2.2	1.1	144	0.12	2.8	0.20	1.4	39.2	8.4	17.1	22.7
6.0	4.9	1.7	181	0.40	4.1	0.14	2.6	56.1	8.6	47.6	37.3
1.0	0.6	0.1	120	0.09	0.9	<0.01	0.3	8.4	1.9	2.5	12.5
0.9	0.6	0.2	115	0.09	0.9	<0.01	0.2	7.1	1.2	1.6	9.7
0.8	0.7	0.4	136	0.30	0.8	0.02	0.3	8.1	1.6	1.8	8.6
0.5	0.4	0.2	123	0.04	0.5	0.02	0.2	4.9	1.1	2.0	7.7
1.5	1.3	0.7	569	0.18	1.9	0.04	1.1	12.5	2.3	4.9	18.0
1.6	0.5	0.3	415	0.06	1.8	0.02	0.6	13.8	2.9	0.3	9.7
9.2	0.9	2.1	341	0.16	6.8	0.31	3.3	86.8	11.4	<1.5	51.4
0.9	0.4	0.2	205	0.06	0.9	0.04	0.3	7.2	1.8	2.7	8.0
0.8	0.4	<0.1	180	0.06	0.8	0.02	0.3	6.6	1.7	2.6	9.0
0.9	0.8	<0.1	122	0.09	0.6	0.01	0.2	7.3	1.6	1.0	9.7
0.9	0.5	0.2	133	0.09	1.0	0.01	0.3	7.4	1.7	1.3	10.9
1.2	0.7	0.5	192	0.08	1.3	0.08	0.4	10.8	2.7	5.3	14.1
1.5	0.9	0.4	225	0.10	1.7	0.04	0.5	13.2	3.3	6.7	15.6
1.3	0.8	0.5	207	0.09	1.4	0.02	0.5	12.4	3.1	6.2	14.5
1.4	1.0	0.4	217	0.10	1.5	0.03	0.5	12.1	3.2	5.9	13.7
1.5	0.9	0.3	214	0.08	1.8	0.04	0.6	16.2	3.0	9.2	14.0
1.9	1.3	0.4	245	0.12	2.3	0.06	0.7	18.6	3.6	10.8	17.5
1.5	0.7	1.8	209	0.08	1.8	0.03	0.6	14.6	3.0	7.2	16.6
1.5	0.7	0.8	219	0.10	1.8	0.04	0.6	15.7	3.3	9.9	15.9
1.2	0.5	0.4	187	0.09	1.3	0.02	0.4	11.8	2.3	5.0	14.6
1.2	0.4	0.3	189	0.09	1.4	0.01	0.4	11.3	2.2	4.7	12.3
1.2	0.5	0.3	189	0.09	1.6	0.02	0.4	11.1	2.3	4.7	12.9

Sc ppm	Se ppm	Sn ppm	Sr ppm	Te ppm	Th ppm	Tl ppm	U ppm	V ppm	Y ppm	Zn ppm	Zr ppm
1.4	0.5	0.4	203	0.16	1.5	0.02	0.5	14.1	2.7	6.2	13.7
2.0	0.4	4.1	143	0.07	2.4	0.12	0.7	20.3	4.3	20.2	24.6
2.5	0.4	1.1	181	0.07	2.7	0.13	0.8	24.2	4.8	23.0	32.2
1.9	0.2	<0.4	161	0.07	2.3	0.13	0.6	18.5	4.0	19.0	22.7
1.9	0.3	<0.4	172	0.08	2.6	0.09	0.6	18.3	3.6	16.5	22.2
1.0	<0.1	0.5	230	0.08	1.7	0.04	0.5	9.2	2.9	16.5	13.7
1.1	0.3	0.8	221	0.10	1.7	0.05	0.5	9.0	3.1	18.9	17.2
1.2	<0.1	0.6	202	0.08	1.6	0.07	0.5	10.2	2.9	22.2	16.2
1.2	0.2	0.4	191	0.07	1.8	0.05	0.5	10.9	3.1	19.0	17.7
2.0	1.2	0.2	148	0.08	2.2	0.07	0.8	22.2	5.9	34.1	16.4
2.4	2.0	0.7	165	0.13	2.5	0.11	1.1	27.3	6.3	39.0	19.6
1.4	<0.1	0.3	136	0.07	1.4	0.21	0.5	13.0	5.0	39.6	13.8
2.0	1.3	0.4	140	0.10	2.4	0.08	0.8	23.1	5.5	30.0	18.3
1.3	0.9	1.3	144	0.09	1.3	0.03	0.5	12.1	3.0	8.9	14.5
1.3	0.3	1.0	149	0.10	1.6	0.04	0.5	12.4	3.0	9.9	15.4
1.1	0.6	0.4	129	0.08	1.4	0.03	0.4	10.5	2.5	7.5	12.5
1.2	0.2	0.6	132	0.08	1.4	0.03	0.4	10.9	2.7	9.3	14.1
1.1	0.3	0.3	183	0.09	1.3	0.02	0.4	11.3	2.3	4.9	11.8
2.0	0.5	0.5	184	0.11	2.5	0.13	0.7	19.3	4.3	17.8	28.1
1.5	4.6	2.6	201	0.09	1.7	0.04	0.6	14.9	3.3	7.5	14.1
1.5	0.9	3.6	188	0.09	1.8	0.03	0.5	14.7	3.2	7.3	14.0
1.5	3.9	1.1	201	0.09	1.8	0.03	0.6	14.6	3.5	7.4	14.4
1.6	1.4	0.6	209	0.09	1.8	0.04	0.6	15.1	3.5	8.0	14.6
1.3	1.3	0.5	210	0.08	1.5	0.03	0.5	12.6	3.3	6.8	13.4
1.4	1.2	0.4	224	0.09	1.7	0.04	0.5	14.0	3.4	7.7	13.6
1.3	1.3	0.4	194	0.08	1.4	0.03	0.4	12.0	3.0	6.3	12.2
1.4	1.0	0.5	225	0.09	1.8	0.03	0.5	13.6	3.5	7.5	14.3
1.5	1.1	1.4	213	0.09	1.8	0.03	0.5	13.8	3.7	9.2	12.8

Sc ppm	Se ppm	Sn ppm	Sr ppm	Te ppm	Th ppm	Tl ppm	U ppm	V ppm	Y ppm	Zn ppm	Zr ppm
1.5	1.1	0.6	211	0.11	1.9	0.03	0.6	14.2	3.7	7.6	13.8
1.5	0.9	1.2	214	0.10	1.9	0.03	0.6	14.4	3.7	7.7	14.4
1.3	0.9	1.6	199	0.08	1.4	0.02	0.5	11.9	3.2	5.9	12.9
1.3	1.0	0.6	199	0.08	1.5	0.02	0.5	11.8	3.2	6.3	12.9
1.3	0.8	0.8	210	0.08	1.5	0.02	0.5	12.0	3.3	6.1	11.5
1.3	1.3	1.5	200	0.32	1.5	0.02	0.5	12.1	3.2	7.0	12.2
1.3	1.1	5.5	209	0.08	1.5	0.02	0.5	12.6	3.2	6.6	12.3
1.3	1.1	0.7	205	0.08	1.5	0.03	0.5	13.0	3.4	7.4	12.5
1.3	1.0	1.2	208	0.08	1.5	0.03	0.5	12.6	3.4	6.2	12.5
1.4	1.0	0.5	206	0.08	1.7	0.03	0.5	12.7	3.3	7.9	12.7
1.2	0.6	0.5	183	0.08	1.5	0.02	0.5	11.6	2.6	5.9	11.6
1.1	0.5	1.8	182	0.07	1.3	0.02	0.4	10.9	2.4	5.7	10.8
1.2	0.9	0.6	195	0.07	1.5	0.02	0.5	11.6	3.0	8.2	11.7
1.2	0.8	0.4	199	0.07	1.4	0.02	0.5	11.2	2.9	7.2	11.9
1.4	0.8	0.6	184	0.08	1.9	0.03	0.5	13.3	3.0	8.2	12.8
1.2	0.6	0.5	185	0.07	1.4	0.02	0.5	11.9	2.8	5.8	12.4
1.2	0.6	0.4	180	0.07	1.6	0.03	0.5	11.8	2.7	7.1	11.8
1.3	0.8	0.4	194	0.07	1.6	0.03	0.5	12.9	3.1	6.7	13.2
1.6	0.9	0.6	214	0.09	1.8	0.05	0.7	17.3	3.4	14.4	15.0
1.6	1.1	0.6	213	0.09	2.0	0.05	0.7	17.1	3.1	12.7	14.4
1.5	1.1	0.9	211	0.09	2.0	0.05	0.7	16.5	3.2	7.8	16.2
1.4	0.9	0.4	210	0.09	1.7	0.02	0.5	12.3	3.4	6.9	14.9
1.1	0.7	0.6	180	0.07	1.5	0.02	0.4	11.0	2.4	5.5	12.4
1.7	0.9	0.3	241	0.07	1.9	0.04	0.6	14.9	3.6	12.3	15.0
1.7	0.8	0.3	226	0.07	2.0	0.04	0.6	15.0	3.3	8.4	14.8
1.6	1.0	0.3	229	0.07	2.0	0.04	0.6	14.7	3.4	8.3	13.3
1.6	0.9	0.3	225	0.07	1.8	0.03	0.6	14.7	3.3	8.8	13.9
1.6	1.2	0.3	230	0.06	1.8	0.04	0.6	14.8	3.2	9.4	15.0

Sc ppm	Se ppm	Sn ppm	Sr ppm	Te ppm	Th ppm	Tl ppm	U ppm	V ppm	Y ppm	Zn ppm	Zr ppm
1.7	1.0	0.3	227	0.07	1.9	0.05	0.6	15.1	3.2	9.7	15.6
1.6	1.4	0.3	221	0.07	1.9	0.04	0.6	14.4	3.0	9.0	15.0
1.7	0.7	0.3	229	0.07	2.1	0.04	0.6	14.5	3.1	9.4	16.2
1.6	1.0	1.6	226	0.07	1.9	0.04	0.6	14.5	3.1	8.8	15.3
1.5	0.7	0.4	238	0.07	2.0	0.02	0.5	12.2	3.7	6.9	13.8
1.5	0.7	0.9	230	0.07	1.8	0.02	0.5	12.2	3.5	7.5	12.1
1.4	0.8	0.3	222	0.07	1.7	0.02	0.4	11.6	3.4	6.6	13.3
1.4	0.9	0.2	214	0.07	1.8	0.02	0.4	11.6	3.3	6.9	12.9
1.5	1.0	0.3	230	0.07	1.7	0.02	0.5	12.5	3.4	7.4	13.6
1.4	0.5	0.5	207	0.06	1.7	0.05	0.4	11.2	2.9	10.9	13.6
1.2	0.3	0.6	208	0.06	1.6	0.02	0.4	10.2	2.6	9.2	12.3
1.3	0.3	0.7	225	0.09	2.0	0.02	0.5	10.8	2.6	9.7	15.3
1.2	0.3	0.5	210	0.06	1.7	0.02	0.4	10.7	2.5	9.2	16.8
1.2	0.3	1.5	217	0.06	1.6	0.04	0.4	10.6	2.6	9.2	15.9
1.3	0.3	0.4	242	0.06	2.0	0.03	0.5	11.6	2.8	12.0	16.8
1.6	0.3	0.4	302	0.07	3.1	0.04	0.8	12.3	4.5	16.5	12.8
1.5	nd	0.4	301	0.06	2.6	0.03	0.7	11.9	4.4	16.5	11.1
1.3	0.4	0.4	277	0.07	2.3	0.03	0.7	10.1	4.2	13.5	10.6
1.3	0.3	0.5	254	0.06	2.4	0.03	0.7	10.3	4.0	12.4	9.9
1.4	0.0	0.5	307	0.06	2.9	0.04	0.8	11.1	4.6	14.9	10.4
1.4	0.3	1.1	291	0.06	2.3	0.04	0.8	10.8	4.4	15.6	11.3
2.6	1.6	0.4	192	0.08	2.9	0.14	0.9	25.3	5.9	35.0	18.2
2.4	2.3	0.3	184	0.08	2.5	0.12	0.8	23.2	5.9	30.8	18.0
1.6	0.6	0.3	179	0.08	2.0	0.05	0.5	12.8	3.4	10.7	15.6
1.5	0.8	2.4	183	0.07	1.7	0.04	0.5	12.4	3.5	10.4	15.5
1.4	0.9	0.3	233	0.08	1.7	0.02	0.5	12.1	3.6	7.2	12.8
1.7	1.2	0.3	220	0.09	1.8	0.04	0.6	15.1	3.2	7.9	14.1

Sc ppm	Se ppm	Sn ppm	Sr ppm	Te ppm	Th ppm	Tl ppm	U ppm	V ppm	Y ppm	Zn ppm	Zr ppm
1.3	0.0	0.7	137	0.08	2.0	0.20	0.8	8.5	3.6	8.1	25.3
1.0	0.3	1.4	182	0.07	1.6	0.15	0.6	6.8	2.8	6.0	23.2
0.5	0.6	0.4	186	0.04	0.7	0.14	0.3	5.0	1.5	4.8	14.0
1.4	0.8	2.1	137	0.10	2.3	0.22	0.9	12.0	3.0	5.7	47.9
1.3	1.1	2.2	119	0.08	2.0	0.36	0.8	9.8	2.6	6.3	38.5
0.2	0.5	0.9	104	0.02	0.3	0.01	0.1	1.9	0.7	2.9	6.8
0.5	0.5	0.5	122	0.02	0.7	0.01	0.3	2.9	1.3	3.1	12.8
0.4	0.4	0.8	133	0.02	0.5	0.01	0.2	2.3	1.1	3.1	9.4
0.3	0.6	0.4	115	0.02	0.4	0.01	0.1	2.1	0.9	3.4	10.5
0.6	0.7	1.0	12	0.02	0.7	0.09	0.3	3.7	6.3	17.2	11.2
0.7	1.0	1.8	13	0.02	1.0	0.11	0.4	6.0	6.5	16.5	12.7
1.3	1.4	0.3	177	0.09	0.8	0.04	0.5	10.4	14.6	7.5	14.0
1.5	1.3	<0.4	203	0.09	<1.2	0.50	0.4	12.5	12.3	17.0	14.3
3.9	1.4	<0.9	253	0.12	<2.4	0.25	1.1	35.8	7.0	22.3	38.4
1.0	1.4	0.6	170	0.08	<0.7	0.11	0.4	10.4	7.1	8.9	11.7
1.3	1.2	<0.4	205	0.07	<1.1	0.51	0.4	11.0	11.9	18.7	11.2
5.1	2.4	2.2	101	0.17	7.7	0.31	3.5	36.7	8.3	30.4	102.0
3.5	0.9	2.2	464	0.13	4.8	0.30	3.6	13.7	15.6	21.5	95.6
2.7	3.0	2.0	20	0.15	6.4	<0.01	2.2	13.8	4.7	9.0	64.8
1.5	1.8	0.5	43	0.07	1.7	0.12	0.7	7.1	3.4	7.6	32.5
1.0	1.1	0.2	150	0.05	0.8	0.07	0.4	4.2	4.6	7.6	14.5
1.6	3.0	0.4	42	0.08	1.2	0.68	0.7	6.7	3.7	13.4	28.8
1.1	0.9	0.5	260	0.05	1.5	0.08	0.9	5.9	3.7	7.9	24.9
1.0	1.0	0.5	347	0.08	2.0	0.04	0.8	5.0	3.2	7.8	11.8
1.0	0.6	0.4	238	0.05	1.3	0.03	0.9	5.4	4.5	10.3	17.7
1.3	0.6	0.5	223	0.06	<1.2	0.09	1.0	9.8	4.7	16.8	42.3

Sc ppm	Se ppm	Sn ppm	Sr ppm	Te ppm	Th ppm	Tl ppm	U ppm	V ppm	Y ppm	Zn ppm	Zr ppm
1.7	1.1	0.9	515	0.08	2.8	0.07	1.3	11.9	6.4	18.5	21.9
1.5	1.0	0.8	307	0.11	1.7	0.34	1.0	11.9	3.6	14.1	20.3
0.5	0.3	0.3	174	0.03	0.9	0.02	0.5	4.3	1.3	6.2	9.6
1.8	0.2	0.2	454	0.04	1.0	0.06	0.8	12.7	7.3	14.6	11.0
2.1	1.0	0.8	397	0.12	4.0	0.10	1.7	12.7	6.2	11.8	41.6
1.5	0.9	0.5	323	0.09	1.9	0.08	1.3	9.1	5.1	8.4	36.4
2.0	1.5	0.7	133	0.11	1.3	0.06	1.2	17.2	2.9	7.6	42.0
0.6	0.3	0.2	105	0.05	0.5	0.05	0.3	5.1	1.4	5.2	5.6
1.3	0.3	0.4	217	0.10	1.2	0.09	0.7	11.2	2.5	6.7	21.4
1.2	0.4	0.4	100	0.04	1.1	0.43	1.8	12.6	4.3	9.8	17.2
1.1	0.7	0.5	113	0.04	2.5	0.03	1.4	7.9	4.2	9.4	18.6
1.3	0.4	0.4	277	0.04	1.1	<0.01	1.3	11.4	5.0	10.8	13.4
1.7	0.6	0.7	206	0.05	3.3	<0.01	1.3	9.7	6.4	13.0	33.9
1.0	0.4	0.6	118	0.04	2.2	<0.01	0.9	6.3	3.3	6.0	18.8
0.9	0.8	0.5	234	0.07	1.8	<0.01	0.7	6.5	2.3	6.7	22.6
0.8	1.9	9.1	227	0.06	1.8	<0.01	0.7	6.3	2.3	6.6	29.8
4.6	2.2	1.8	140	0.20	6.3	0.39	2.1	24.8	10.6	26.8	75.3
1.1	0.7	0.7	46	0.06	2.4	0.02	1.0	5.7	3.4	5.2	18.6
1.3	1.0	0.5	107	0.07	1.6	0.01	0.7	11.2	2.8	8.9	22.2
1.3	1.1	0.8	428	0.09	2.6	<0.01	0.9	9.5	3.6	10.0	23.7
0.9	1.6	0.7	241	0.09	1.9	0.20	0.7	6.9	2.4	9.5	40.1
3.1	0.5	1.5	375	0.22	4.1	0.10	1.7	24.8	5.5	15.7	50.9
0.7	1.0	0.3	78	0.03	1.3	0.04	0.5	5.9	1.9	7.4	30.4
1.4	1.0	0.7	255	0.07	2.6	0.10	0.9	8.4	4.2	10.4	34.8
0.8	1.1	0.4	167	0.03	1.2	0.08	0.5	5.3	1.9	4.4	12.7
0.7	1.3	0.4	155	0.03	1.1	0.10	0.5	5.2	1.9	4.5	12.1
1.6	1.4	0.7	130	0.04	3.1	0.08	1.1	10.5	4.5	8.5	30.1
1.4	1.5	0.6	83	0.03	2.7	0.07	1.0	9.5	3.7	5.3	23.1

Sc ppm	Se ppm	Sn ppm	Sr ppm	Te ppm	Th ppm	Tl ppm	U ppm	V ppm	Y ppm	Zn ppm	Zr ppm
1.4	2.1	0.5	143	0.03	2.3	0.05	1.0	7.1	4.1	3.1	23.3
0.2	0.5	0.1	50	0.01	0.4	0.01	0.2	0.9	0.8	1.0	3.9
0.4	0.3	0.2	49	0.01	1.1	0.01	0.4	2.4	1.2	1.3	7.6
0.5	0.6	0.2	48	0.01	0.6	0.04	0.3	3.5	1.5	1.1	6.6
0.7	0.6	0.3	106	0.02	1.1	0.05	0.3	4.7	1.6	2.8	10.7
0.3	0.4	0.1	22	0.01	0.3	0.02	0.1	2.3	0.9	2.8	3.1
0.4	0.4	0.2	111	0.01	0.8	0.03	0.3	2.9	1.2	2.2	7.7
0.5	0.4	0.2	63	0.01	0.6	0.01	0.2	2.4	1.8	1.3	6.3
0.8	0.4	0.1	41	0.01	0.3	0.02	0.1	3.3	1.8	1.9	5.9
0.7	0.5	0.2	100	0.02	1.1	0.02	0.6	4.4	1.9	2.1	9.7
2.0	1.8	0.7	123	0.08	1.9	0.07	0.5	13.9	4.9	6.9	12.3
2.9	1.9	0.6	158	0.06	2.4	0.06	0.7	20.8	6.0	8.0	10.3
0.6	1.1	0.4	135	0.03	1.0	0.10	0.5	4.7	1.7	3.8	12.7
0.8	1.3	<0.7	51	<0.13	0.7	1.56	0.3	2.4	4.1	21.5	
1.2	1.7	<0.7	59	<0.14	0.8	0.83	8.3	6.9	2.9	35.2	
1.9	0.5	<0.8	43	<0.16	0.9	0.36	1.4	8.7	4.2	44.2	
1.3	1.1	0.3	41	0.02	0.8	0.46	0.4	12.8	3.8	22.3	6.2
0.6	<0.1	1.1	60	0.02	<0.8	0.54	0.2	13.8	1.8	15.4	3.9
1.2	0.6	0.4	31	0.02	0.9	0.10	0.4	14.4	2.8	23.9	6.5
1.3	2.5	0.3	66	0.02	0.7	0.57	2.2	10.9	5.2	15.8	3.9
2.0	0.3	0.5	39	0.02	1.4	0.13	0.4	16.0	3.6	15.3	9.0
5.9	1.8	3.6	25	<0.36	2.9	2.52	0.8	28.8	7.6	82.8	37.8
3.9	1.8	<1.4	18	<0.28	1.5	1.81	0.8	19.5	19.5	19.5	13.9
3.9	1.3	<1.1	85	<0.21	2.5	0.30	1.3	32.3	32.3	192.0	21.2

Sc ppm	Se ppm	Sn ppm	Sr ppm	Te ppm	Th ppm	Tl ppm	U ppm	V ppm	Y ppm	Zn ppm	Zr ppm
3.6	12.2	<2.0	121	<0.40	2.2	4.38	4.6	47.8	47.8	18.7	19.9
2.0	1.0	4.2	27	0.02	1.3	0.42	0.5	11.9	5.1	135.0	7.0
1.8	1.3	3.0	23	0.02	1.7	0.53	0.8	12.3	4.4	15.3	12.2
1.9	1.0	2.6	32	0.02	1.3	0.36	0.6	10.7	5.7	1010.0	10.7
2.9	2.9	4.1	34	0.01	1.6	1.05	11.2	71.9	3.9	366.0	27.7
2.8	3.2	11.8	47	<0.01	1.6	0.79	5.2	39.2	4.0	1480.0	33.2
3.4	2.0	7.6	46	0.02	1.4	0.65	1.5	22.1	4.7	2230.0	21.8
2.3	1.9	2.1	20	0.03	1.5	0.45	0.5	13.5	3.7	63.8	16.5
3.7	2.0	<1.2	35	<0.23	1.8	2.62	3.8	34.2	34.2	19.4	27.4
9.4	5.6	<2.3	44	<0.46	2.8	1.44	8.2	220.0	220.0	618.0	147.0
2.9	1.7	1.0	11	<0.21	1.7	1.31	1.3	46.5	46.5	18.2	19.2
2.2	2.8	<1.6	12	<0.32	1.8	6.72	1.6	19.2	19.2	22.4	16.0
2.8	4.5	<1.6	16	<0.32	2.0	1.87	9.5	21.8	21.8	21.8	18.7
5.7	5.5	<1.3	315	<0.25	2.9	0.51	1.3	50.8	50.8	54.5	27.8
6.0	11.6	<2.5	53	<0.49	6.3	3.62	14.2	210.0	210.0	506.0	23.9
1.9	2.0	<1.3	15	<0.25	1.2	0.70	0.5	9.2	9.2	18.2	4.6
1.9	2.9	<1.6	15	<0.31	<1.3	5.85	0.6	12.8	12.8	77.0	12.6
6.5	1.4	<2.1	19	<0.42	1.9	2.51	2.0	37.6	37.6	20.9	29.3
1.5	5.1	<0.9	15	<0.18	0.7	0.71	0.2	4.7	4.7	668.0	1.7
5.3	9.0	<1.5	23	<0.29	3.2	0.82	1.2	38.6	38.6	13.4	24.3
4.1	1.1	<1.2	20	<0.23	2.0	1.68	1.2	29.1	29.1	51.5	20.2
2.3	1.2	0.9	11	<0.19	1.3	1.12	0.7	21.4	21.4	21.4	15.8
2.8	4.3	<2.1	15	<0.41	2.0	5.86	4.0	58.6	58.6	46.5	16.8
3.5	2.8	<1.8	20	<0.36	2.7	1.95	4.1	31.9	31.9	12.2	19.5
6.9	2.5	<1.5	58	<0.30	1.5	2.04	3.9	36.5	36.5	104.0	45.3
5.3	2.5	<1.1	42	<0.22	1.8	0.95	0.7	41.8	41.8	23.1	38.5
2.4	2.0	<0.7	38	<0.15	1.3	0.14	0.5	22.7	22.7	45.4	17.8
4.2	2.4	<1.4	16	<0.27	2.0	1.97	2.8	26.2	26.2	15.7	17.0

Sc ppm	Se ppm	Sn ppm	Sr ppm	Te ppm	Th ppm	Tl ppm	U ppm	V ppm	Y ppm	Zn ppm	Zr ppm
7.3	3.6	<1.8	34	<0.36	3.0	1.97	2.7	39.4	39.4	62.7	64.4
2.9	1.2	0.2	12	0.01	0.4	0.12	0.3	5.4	2.5	4.2	4.1
2.1	2.3	0.5	98	0.02	1.8	0.21	0.5	9.7	30.6	291.0	13.9
6.2	3.5	0.8	440	0.05	4.0	0.19	1.3	32.1	10.4	27.1	19.0
2.7	5.5	0.4	10	0.01	<0.4	0.92	0.3	13.2	3.1	8.0	8.7
2.0	6.6	0.5	16	0.02	0.8	0.56	0.4	12.8	3.2	6.3	16.8
2.3	4.1	0.3	134	0.02	1.6	0.24	0.3	8.8	3.2	3.3	8.9
6.0	6.3	0.7	361	0.05	4.3	0.73	1.0	45.4	4.7	24.8	19.6
3.2	1.3	0.4	13	0.02	0.7	0.92	0.4	9.9	4.0	36.9	7.7
2.4	2.6	0.6	15	0.02	1.9	0.28	0.5	16.4	5.1	11.5	18.5
1.6	4.1	0.4	8	0.02	<0.4	1.77	0.2	7.2	2.9	595.0	6.1
6.1	4.9	0.6	170	0.04	4.4	0.45	0.7	27.3	4.8	37.5	15.0
2.0	5.5	0.5	12	0.02	1.1	0.66	0.4	12.9	2.6	6.4	15.1
10.0	10.3	2.5	151	0.08	4.8	0.60	2.5	125.0	9.7	15.3	45.3
10.6	30.4	1.1	168	0.11	3.4	2.91	1.3	114.0	21.8	1020.0	21.9
1.3	3.6	0.6	30	0.07	<0.7	0.72	0.5	8.3	3.4	8.3	8.7
1.4	3.4	0.4	27	0.03	<0.6	0.74	0.5	9.3	3.1	6.6	7.7
0.5	2.4	0.3	14	0.03	<0.6	2.61	0.2	4.1	2.9	10.3	5.2
0.7	2.5	0.3	12	0.03	<0.3	0.49	0.2	4.1	3.0	6.3	5.9
4.3	2.8	1.0	231	0.06	2.5	0.81	0.8	23.1	4.9	10.7	15.1
4.6	2.6	0.9	237	0.05	2.6	0.55	0.9	25.3	5.0	12.9	14.5
5.1	6.1	0.4	265	0.08	3.7	2.40	1.6	26.7	10.0	42.6	7.0
5.1	3.7	0.2	297	0.07	4.0	0.58	1.4	24.4	10.8	27.5	6.3
1.0	2.8	0.3	17	0.02	<0.4	3.55	0.3	4.2	8.9	12.8	3.6
1.0	2.2	0.1	16	0.01	0.4	0.68	0.3	4.1	9.4	11.3	2.7
3.4	3.3	0.3	21	0.02	0.7	2.53	0.5	8.0	6.1	64.3	3.9
3.3	2.1	0.3	25	0.02	0.9	0.39	0.5	8.1	6.6	27.4	2.1
1.8	1.3	0.4	12	0.01	0.6	0.33	0.4	7.3	3.7	179.0	4.9

Sc ppm	Se ppm	Sn ppm	Sr ppm	Te ppm	Th ppm	Tl ppm	U ppm	V ppm	Y ppm	Zn ppm	Zr ppm
1.9	1.1	0.4	9	0.01	0.5	0.21	0.4	7.0	3.7	68.4	5.7
2.6	0.5	1.3	15	0.02	1.7	0.44	1.0	20.2	4.6	14.5	11.6
2.6	0.5	1.1	15	0.02	1.7	0.29	1.1	20.3	4.4	17.0	19.9
3.5	0.7	1.1	16	0.02	2.0	0.70	1.1	22.8	4.6	14.6	26.3
3.4	0.7	1.0	15	0.02	2.2	0.27	0.9	21.8	4.3	14.7	19.2
4.6	0.4	1.0	12	0.11	0.9	0.65	0.8	23.8	3.7	122.0	16.0
4.2	0.4	0.9	11	0.04	1.2	0.38	0.9	20.5	3.3	29.0	19.8
2.2	4.6	0.3	133	0.02	1.7	0.20	0.2	8.1	3.0	2.9	6.4
1.4	3.4	0.4	30	0.02	<0.6	0.70	0.5	9.9	3.2	6.7	8.6
3.2	2.2	0.3	26	0.02	0.8	0.40	0.5	8.0	6.6	24.2	2.4
2.1	0.8	0.5	14	0.02	1.0	0.34	0.3	9.8	4.4	15.8	11.0
2.0	0.8	0.5	11	0.01	0.9	0.25	0.3	9.4	4.5	22.1	9.7
3.5	1.2	1.3	18	0.02	2.6	0.50	0.7	22.4	5.2	49.3	27.6
3.4	0.9	1.3	17	0.02	2.3	0.30	0.7	23.2	5.1	258.0	26.6
5.1	0.8	0.9	14	0.02	1.9	0.77	0.7	18.4	4.5	129.0	23.6
5.2	1.0	0.8	16	0.02	1.7	0.55	0.7	19.2	4.6	132.0	21.5
3.4	6.1	0.7	17	0.03	<1.1	3.72	2.4	21.3	5.7	239.0	24.7
2.6	3.9	0.3	9	0.03	<0.6	1.91	1.7	13.2	4.4	31.4	10.7
1.8	2.7	0.6	10	0.06	<0.6	1.34	0.6	12.8	3.7	19.6	9.7
1.7	2.3	0.4	9	0.02	<0.5	1.09	0.5	11.6	3.6	18.0	8.8
4.8	2.9	1.1	27	0.04	1.8	0.64	0.9	28.1	3.8	363.0	41.7
4.5	2.4	1.0	19	0.04	<1.2	0.60	0.8	27.6	3.5	28.7	42.3
7.3	1.4	2.2	31	0.05	2.4	0.42	1.5	88.2	7.6	143.0	103.0
4.9	1.2	1.5	16	0.02	0.9	0.33	1.1	74.2	5.1	71.1	66.3
4.1	1.3	1.2	29	0.03	1.8	0.23	0.7	30.6	3.9	272.0	47.2
4.4	1.9	1.5	33	0.04	2.7	0.26	1.0	31.4	4.3	14.5	40.9
4.3	0.7	0.6	16	0.04	1.9	0.16	1.9	18.3	3.2	155.0	24.0
3.8	0.7	0.5	13	0.04	1.8	0.11	1.7	15.5	2.7	97.5	19.6

Sc ppm	Se ppm	Sn ppm	Sr ppm	Te ppm	Th ppm	Tl ppm	U ppm	V ppm	Y ppm	Zn ppm	Zr ppm
2.2	0.5	0.9	30	0.02	1.8	0.12	0.5	13.2	3.2	10.4	18.1
2.0	0.4	1.6	26	0.02	1.5	0.09	0.5	13.0	2.8	9.3	15.9
7.9	1.2	2.5	93	0.04	4.6	0.44	1.6	51.7	9.4	40.0	69.6
3.4	0.7	1.0	28	0.03	2.0	0.20	0.9	24.4	3.9	18.9	34.4
1.0	2.4	0.2	46	0.02	0.9	0.32	0.2	6.9	4.0	18.2	4.8
0.7	1.6	0.2	36	0.02	0.8	0.18	0.2	5.8	3.0	11.5	2.9
0.8	1.2	0.2	6	0.02	0.5	0.28	0.3	5.9	3.6	7.0	3.1
0.6	1.9	0.1	4	0.02	0.3	0.12	0.2	4.8	2.5	5.3	2.6
2.5	2.4	0.9	141	0.15	3.1	0.33	1.4	28.6	6.2	24.6	13.7
2.4	2.5	0.7	148	0.11	2.9	0.28	1.4	30.4	5.7	23.0	11.2
1.9	5.5	0.4	10	0.03	<0.8	0.72	0.5	13.3	3.7	18.1	14.6
1.8	5.2	0.5	10	0.03	0.7	0.45	0.5	11.4	3.6	6.0	12.4
1.0	4.4	0.1	5	0.02	<0.3	0.21	0.2	8.0	3.2	20.9	4.7
1.1	3.5	0.1	6	0.02	<0.3	0.19	0.2	9.3	3.7	15.1	4.0
4.3	6.3	0.5	73	0.04	5.0	0.14	1.1	49.3	6.2	101.0	6.4
4.3	3.9	0.5	64	0.04	4.8	0.11	1.2	54.3	5.9	13.3	6.9
8.7	5.1	1.0	96	0.07	5.9	0.46	1.7	87.0	6.3	40.4	26.7
8.6	4.2	0.9	86	0.07	5.9	0.34	1.6	87.7	6.1	33.7	29.7
1.8	5.2	0.4	9	0.03	<0.6	0.41	0.5	11.3	3.6	5.9	14.7
3.4	1.4	1.0	18	0.02	2.4	0.52	0.6	19.9	5.0	39.1	29.0
1.7	2.5	0.3	9	0.02	<0.5	1.18	0.5	11.2	3.5	16.5	13.6
1.7	2.5	0.5	13	0.02	0.8	0.27	0.3	10.0	2.6	34.5	11.1
2.2	2.2	0.5	13	0.02	0.9	0.19	0.3	10.0	3.1	149.0	12.2
2.2	2.6	0.3	12	0.03	1.1	0.25	0.3	11.7	3.3	6.6	10.7
1.7	5.1	0.3	10	0.02	0.9	0.09	0.3	9.8	2.4	5.4	8.8
7.5	6.2	1.0	259	0.05	6.7	0.61	0.7	56.2	4.4	11.8	26.1
6.9	3.8	0.9	238	0.04	6.2	0.19	0.6	45.5	4.2	9.1	20.1
3.8	10.1	0.3	13	0.01	0.5	0.81	0.3	11.7	4.2	32.7	9.2

Sc ppm	Se ppm	Sn ppm	Sr ppm	Te ppm	Th ppm	Tl ppm	U ppm	V ppm	Y ppm	Zn ppm	Zr ppm
2.8	4.6	0.2	9	0.01	0.3	0.47	0.3	10.0	3.5	27.3	8.0
3.1	4.0	0.6	17	0.04	3.0	0.25	0.5	22.5	5.5	3.7	22.1
2.9	3.4	0.7	14	0.03	2.9	0.21	0.5	24.1	5.4	4.2	24.5
2.1	6.0	0.5	15	0.03	1.6	0.41	0.4	15.2	3.5	490.0	10.6
3.4	2.9	0.6	19	0.06	2.1	0.15	0.4	17.8	4.8	279.0	9.9
7.4	15.9	0.7	76	0.05	2.9	1.30	1.4	45.2	4.7	147.0	13.8
6.6	9.9	0.7	72	0.04	3.1	0.34	1.3	46.6	4.0	84.4	13.9
4.2	3.8	1.0	40	0.05	2.8	1.88	2.8	46.2	7.4	59.6	20.6
3.8	4.6	0.7	40	0.04	2.4	1.66	2.9	48.6	6.9	47.9	18.2
3.4	3.9	0.6	37	0.04	1.9	1.64	2.5	41.5	6.2	49.5	18.1
3.4	6.1	0.6	36	0.04	2.0	1.70	3.0	43.6	6.0	49.8	17.7
3.7	4.2	0.7	39	0.04	2.1	1.86	2.9	41.4	6.4	51.7	18.9
3.9	0.6	1.3	41	0.02	2.1	0.24	1.0	28.2	3.7	55.3	32.9
4.1	0.6	1.4	44	0.19	2.2	0.17	1.0	36.6	4.5	46.3	36.2
4.6	0.7	1.0	46	0.03	2.1	0.20	1.0	29.2	3.9	64.7	32.5
2.4	4.7	0.4	23	0.08	1.1	2.77	0.6	12.9	4.6	14.0	18.7
2.2	4.5	0.7	16	0.08	1.3	2.25	0.7	12.8	3.6	8.1	15.7
4.0	2.4	0.7	31	0.04	3.3	0.53	1.0	25.4	6.3	12.3	22.5
3.2	2.5	0.5	19	0.06	2.3	0.69	0.9	23.3	4.9	9.0	18.6
3.3	3.9	0.9	17	0.12	1.4	2.68	1.4	19.3	7.2	14.4	11.9
3.6	2.5	0.5	14	0.07	2.3	0.37	1.5	21.5	6.7	10.8	11.1
3.4	5.2	0.9	18	0.19	<1.3	5.47	2.0	28.2	6.7	166.0	19.5
2.7	2.6	0.6	15	0.06	2.1	0.59	1.9	29.8	6.0	103.0	16.4
4.7	2.4	0.9	26	0.05	2.8	0.97	1.7	28.7	7.1	60.1	28.9
2.8	2.4	0.9	18	0.05	1.7	0.81	1.7	26.6	4.9	55.5	27.5
2.1	2.7	0.4	12	0.03	1.1	0.26	0.4	11.9	3.1	6.4	9.6
3.2	3.4	0.4	17	0.05	1.3	2.89	1.2	18.3	6.7	15.4	13.0
25.1	39.6	7.7	275	0.31	12.7	1.31	8.4	189.0	32.0	401.0	253.0

Sc ppm	Se ppm	Sn ppm	Sr ppm	Te ppm	Th ppm	Tl ppm	U ppm	V ppm	Y ppm	Zn ppm	Zr ppm
21.3	23.4	6.3	260	0.21	11.0	0.77	7.4	159.0	28.5	371.0	194.0
24.5	12.6	7.0	285	0.21	13.6	1.00	8.6	184.0	32.7	549.0	220.0
28.9	10.3	16.0	311	5.30	15.1	1.63	10.8	238.0	38.4	388.0	286.0
25.5	6.8	7.6	285	0.26	12.0	1.17	8.7	204.0	32.5	372.0	251.0
26.3	7.2	7.8	287	0.25	12.1	1.33	9.0	205.0	32.6	330.0	264.0
17.8	6.9	4.1	253	0.14	8.6	0.46	5.1	119.0	23.2	889.0	169.0
24.2	6.0	6.7	283	0.20	14.6	1.09	8.3	189.0	31.8	484.0	221.0
33.8	3.0	8.3	384	0.35	18.8	3.53	12.2	269.0	46.2	466.0	310.0
17.4	5.3	5.5	207	0.35	12.5	12.20	21.6	297.0	43.1	304.0	155.0
16.4	5.1	3.9	205	0.28	13.8	8.82	20.8	283.0	42.9	222.0	139.0
18.1	7.4	5.6	200	0.34	16.9	11.40	23.4	275.0	42.9	337.0	160.0
<3.1	0.8	<2.4	382	<0.08	5.9	<0.08	0.4	1.7	6.8	30.3	31.0
22.0	8.2	5.1	273	0.13	10.3	0.58	7.1	156.0	30.0	579.0	182.0
3.1	3.3	0.3	6	0.02	0.4	2.35	0.2	7.4	2.8	60.8	3.0
2.8	1.0	0.2	5	0.01	0.5	0.04	0.2	7.0	2.4	4.2	3.7
1.6	2.1	0.3	22	0.01	0.7	0.36	0.2	6.6	2.9	33.4	5.6
1.6	1.3	0.3	22	0.01	0.8	0.08	0.2	6.7	3.1	9.8	6.3
3.3	3.9	0.7	61	0.02	2.2	0.31	0.4	15.7	5.2	17.4	16.7
3.3	2.6	0.7	72	0.02	2.3	0.14	0.4	14.7	5.0	14.1	15.5
6.6	3.3	0.6	314	0.03	4.7	4.81	0.5	24.1	4.0	16.9	16.1
8.1	3.0	0.8	382	0.03	7.2	0.37	0.6	35.4	5.0	18.1	20.3
1.4	1.7	0.2	7	0.01	<0.2	0.44	0.2	3.6	3.4	58.1	3.5
1.6	1.6	0.2	8	0.01	0.3	0.30	0.2	3.9	3.8	36.8	3.6
1.8	2.8	0.3	10	0.01	0.5	0.97	0.2	6.1	4.7	186.0	3.6
1.7	1.6	0.3	9	0.01	0.5	0.70	0.2	5.6	4.2	58.6	4.6
5.3	2.8	0.5	12	0.02	<0.5	0.47	0.4	14.1	3.6	2790.0	6.5
5.7	1.4	0.5	13	0.02	0.8	0.37	0.4	15.7	3.8	832.0	9.2
3.0	5.8	0.2	6	0.01	0.5	1.77	0.2	6.8	2.6	58.3	3.6

Sc ppm	Se ppm	Sn ppm	Sr ppm	Te ppm	Th ppm	Tl ppm	U ppm	V ppm	Y ppm	Zn ppm	Zr ppm
10.2	2.4	1.6	39	0.26	6.6	0.58	6.6	84.9	15.9	30.6	24.8
9.4	2.1	1.3	34	0.23	6.2	0.46	6.1	79.9	14.5	27.6	22.2
4.8	1.3	1.2	22	0.21	3.8	0.50	4.0	47.9	8.7	33.3	15.2
4.9	1.5	1.2	22	0.17	3.8	0.26	3.6	48.4	8.5	27.9	14.1
4.8	1.0	0.8	14	0.08	2.9	0.45	2.1	28.8	5.5	39.1	19.6
4.8	1.2	1.6	13	0.08	2.8	0.43	2.1	27.1	5.7	30.1	17.6
7.9	1.9	1.4	40	0.23	6.3	0.49	5.2	67.3	12.8	35.9	28.4
6.8	2.2	1.6	32	0.22	5.1	0.48	4.7	63.2	11.2	34.6	21.9
3.3	1.3	1.1	13	0.04	1.2	2.47	0.7	24.6	6.4	29.4	35.2
2.8	1.4	1.1	11	0.02	1.9	0.97	0.6	21.3	5.5	18.3	32.7
1.3	1.7	0.7	9	0.03	1.1	0.73	0.4	10.2	5.5	36.4	8.6
1.3	2.0	0.5	9	0.03	1.0	0.60	0.4	9.8	5.4	16.6	9.0
2.1	2.9	2.8	13	0.05	<1.6	4.37	1.5	23.5	5.9	13.8	18.9
2.0	3.0	0.6	9	0.05	2.0	1.01	1.5	23.5	5.5	9.9	11.3
2.4	3.7	0.7	16	0.03	1.1	1.27	2.6	15.6	4.9	14.0	15.8
2.2	3.2	0.6	14	0.03	2.0	0.75	2.1	14.2	4.5	11.1	17.7
6.7	2.5	1.3	32	0.20	5.0	0.48	4.3	59.3	11.2	38.5	23.7
2.4	2.9	0.6	16	0.04	1.1	1.27	2.6	15.7	5.0	13.2	19.0
1.6	1.6	0.6	44	0.02	<0.5	0.92	0.5	24.7	3.2	11.3	41.3
2.1	1.7	1.0	56	0.03	<0.5	0.78	0.7	50.2	4.4	8.3	45.8
0.7	1.6	0.3	10	0.02	0.4	0.59	0.2	6.0	1.6	6.1	8.1
0.7	1.4	0.4	9	0.02	0.3	0.53	0.2	5.9	1.5	6.0	6.8
1.3	0.8	0.5	18	0.02	0.7	0.47	0.3	9.7	2.6	12.7	10.5
1.2	0.8	1.0	17	0.02	0.8	0.40	0.3	9.4	2.2	10.8	11.6
1.8	0.6	1.0	14	0.02	0.9	0.36	0.4	16.1	2.6	23.4	26.1
2.3	0.7	0.8	15	0.02	1.0	0.33	0.4	20.3	3.3	29.6	32.2
5.7	nd	12.0	47	0.03	1.9	0.33	0.9	38.8	6.0	49.5	60.9
3.3	0.7	1.3	43	0.02	3.0	0.21	0.7	21.8	4.5	9.7	28.3

Sc ppm	Se ppm	Sn ppm	Sr ppm	Te ppm	Th ppm	Tl ppm	U ppm	V ppm	Y ppm	Zn ppm	Zr ppm
2.3	3.7	1.2	39	0.06	2.1	0.25	0.6	19.2	3.2	24.3	20.7
3.7	nd	0.8	22	0.06	1.5	0.15	1.5	19.9	3.5	38.1	18.5
9.0	5.0	2.9	95	0.04	6.1	0.28	2.1	48.3	10.1	4.7	67.9
4.3	6.1	1.0	41	0.02	2.5	0.24	0.7	18.9	5.2	267.0	19.3
6.1	5.5	0.6	10	0.01	1.6	0.11	0.4	11.1	5.0	168.0	7.5
9.2	3.7	1.1	12	0.03	1.4	0.46	0.9	64.5	4.9	74.4	52.3
3.6	2.2	0.3	7	0.02	0.4	0.11	0.3	5.9	2.4	159.0	8.2
2.9	1.6	0.5	10	0.02	0.8	0.22	0.3	9.1	2.7	6.1	11.6
3.8	6.3	0.8	19	0.02	0.9	0.09	0.4	18.0	3.3	22.9	17.0
8.7	5.7	1.1	94	0.07	2.4	2.29	0.8	42.2	4.9	159.0	18.4
3.1	6.5	1.2	18	0.03	<1.1	0.82	1.1	30.8	3.0	22.6	19.7
3.4	6.7	1.6	25	0.03	2.5	0.25	0.8	27.9	4.4	5.6	27.0
28.4	11.7	4.6	632	0.18	21.9	0.45	4.9	264.0	13.6	8.4	85.5
13.0	6.4	1.9	152	0.05	3.4	0.85	2.4	135.0	4.7	70.8	42.6
2.7	2.9	0.6	14	0.02	1.2	0.37	7.6	14.5	3.5	13.0	14.0
2.2	2.9	0.7	11	0.02	1.0	0.36	8.1	14.7	2.9	15.4	15.1
2.4	3.0	0.5	13	0.03	1.8	0.25	1.2	19.0	4.7	186.0	15.6
2.4	3.0	0.5	12	0.03	1.9	0.24	1.2	19.3	4.6	164.0	12.2
1.6	1.9	0.6	11	0.03	1.0	1.55	0.5	11.3	5.4	42.6	8.7
1.6	2.2	0.5	9	0.03	0.8	0.48	0.5	11.1	4.4	32.3	9.6
2.6	1.3	0.8	10	0.03	1.0	0.69	0.5	16.6	4.7	8.5	16.1
2.5	1.1	0.9	10	0.03	1.0	0.62	0.5	16.6	4.2	11.4	15.0
3.6	3.4	0.6	14	0.02	0.5	0.19	1.1	52.2	3.6	11.3	20.1
3.3	3.3	0.5	11	0.02	0.4	0.20	1.0	41.3	3.2	192.0	18.8
5.0	3.7	0.8	317	0.04	3.5	0.19	2.7	27.3	7.6	9.5	12.1
4.2	4.0	0.6	313	0.04	2.7	0.17	2.8	26.2	6.9	8.8	11.7
6.7	7.3	2.2	236	0.15	4.2	2.29	3.6	70.1	8.9	37.7	24.2
8.4	1.9	1.3	22	0.08	2.9	0.98	1.5	50.1	5.8	23.8	56.4

Sc ppm	Se ppm	Sn ppm	Sr ppm	Te ppm	Th ppm	Tl ppm	U ppm	V ppm	Y ppm	Zn ppm	Zr ppm
13.0	11.9	4.1	93	0.23	8.6	2.30	22.3	152.0	13.0	43.3	98.1
9.7	9.2	1.1	37	0.10	5.4	1.87	18.4	112.0	10.3	83.0	44.2
2.1	2.2	0.7	12	0.04	<1.0	1.17	0.7	14.0	4.8	10.8	11.1
4.2	7.2	0.5	18	0.04	0.6	1.09	1.6	23.7	7.6	11.4	14.3
1.9	2.4	3.3	13	0.03	0.9	2.85	0.6	12.9	7.3	10.9	10.1
1.4	2.1	0.5	8	0.02	0.7	1.72	0.5	10.7	5.6	8.2	9.0
2.5	2.0	1.0	13	0.02	1.2	0.70	0.6	15.6	6.9	13.4	15.0
2.5	2.0	0.7	12	0.02	1.4	0.48	0.5	15.8	6.6	7.5	15.3
10.0	2.6	1.3	11	0.04	2.0	1.54	3.0	61.8	11.9	31.0	54.9
9.2	2.5	1.0	8	0.03	1.9	1.03	2.8	61.3	9.6	20.5	51.5
1.4	1.3	0.9	15	<0.02	<1.5	7.81	0.4	15.0	4.6	11.5	13.7
2.7	1.2	1.0	21	0.02	1.3	2.27	0.6	17.5	4.6	7.4	16.0
2.9	1.2	0.6	16	0.04	1.5	0.86	0.7	10.4	4.7	7.9	8.3
2.7	1.1	0.6	15	0.04	1.0	0.93	0.6	10.9	4.3	7.2	8.8
9.1	1.6	1.2	22	0.08	2.6	0.89	1.2	50.6	6.3	31.5	52.0
6.1	4.0	1.1	229	0.12	4.4	0.52	3.4	64.3	7.8	27.8	20.7
6.0	1.8	0.8	15	0.03	<0.9	1.29	1.2	41.0	5.2	11.6	30.3
5.5	1.5	0.8	14	0.03	<0.8	1.04	1.3	55.0	4.8	10.7	33.3
4.6	6.5	1.2	24	0.04	1.9	1.35	3.2	25.2	13.0	13.4	32.7
2.0	1.7	0.7	11	0.04	1.2	0.71	0.7	16.2	4.2	6.0	12.8
2.7	2.1	1.0	23	0.07	3.2	0.64	1.1	19.4	5.0	14.4	8.1
2.5	2.0	0.8	20	0.06	3.1	0.59	0.9	17.6	4.0	10.8	8.4
5.1	2.2	0.9	15	0.05	0.9	0.72	1.2	32.8	4.5	375.0	36.6
4.3	2.3	0.9	10	0.05	0.7	0.68	1.2	29.3	3.7	138.0	32.4
8.2	2.3	1.0	13	0.03	<0.9	0.66	1.7	32.1	7.2	12.2	67.2
7.4	2.5	0.7	9	0.03	<0.8	0.60	1.8	27.4	6.3	23.8	57.5
2.1	1.6	0.9	12	0.03	1.4	1.01	0.6	16.0	4.1	35.5	
5.3	1.7	1.3	71	0.03	2.1	1.38	1.5	45.8	7.5	188.0	

Sc ppm	Se ppm	Sn ppm	Sr ppm	Te ppm	Th ppm	Tl ppm	U ppm	V ppm	Y ppm	Zn ppm	Zr ppm
21.1	1.7	5.3	259	0.13	16.3	0.95	3.3	151.9	31.2	92.3	
1.5	7.0	0.7	21	0.11	1.1	2.77	4.0	230.2	1.7	9.9	
1.0	2.1	0.8	40	0.03	0.9	1.80	0.2	11.7	3.0	8.5	
2.6	1.5	1.2	21	0.03	2.2	5.96	1.0	35.3	5.4	20.1	
15.9	53.4	4.5	125	0.43	11.2	13.31	56.6	1686.6	27.4	1582.3	
6.2	2.4	1.0	50	0.03	2.1	1.24	1.8	47.6	10.2	60.5	
4.1	3.5	1.0	58	0.04	2.1	3.69	1.2	55.1	9.2	11.0	
2.0	1.9	0.7	26	0.07	1.9	1.22	1.0	16.9	5.8	7.8	
3.6	2.0	0.9	47	0.09	2.2	0.75	2.2	33.4	9.0	20.4	
2.6	2.4	0.9	28	0.02	1.7	1.16	3.0	28.7	3.8	44.4	
1.5	1.9	0.7	28	0.02	1.4	3.80	0.3	16.7	3.1	24.4	
3.0	1.4	1.4	35	0.02	1.8	2.34	0.6	21.2	5.5	35.5	
14.9	43.9	4.8	138	0.24	12.3	10.89	48.9	1069.5	26.4	693.4	
3.2	2.1	1.1	22	0.04	1.7	1.19	1.8	27.6	8.8	54.3	
15.0	28.0	5.0	124	0.29	12.1	7.33	22.1	275.8	39.7	69.5	
15.2	53.9	4.0	212	0.46	10.9	13.11	55.0	1155.0	46.2	1223.2	
13.9	53.2	3.8	103	0.27	8.8	13.19	70.4	990.5	36.6	881.7	
2.7	2.0	0.8	25	0.05	1.7	1.02	1.4	23.7	4.2	86.3	
1.3	1.0	0.6	26	0.02	1.2	5.47	0.3	18.7	2.5	14.2	
2.7	0.9	0.8	24	0.02	1.8	3.20	0.8	26.7	4.5	85.1	
14.5	52.6	4.3	136	0.27	10.0	14.95	57.7	1403.5	32.8	1281.7	
7.6	24.1	2.7	26	0.18	3.0	3.28	40.7	241.9	8.2	28.1	
17.8	38.2	5.7	123	0.42	13.5	9.31	40.6	755.9	31.9	604.9	
2.5	5.8	0.7	21	0.04	1.5	1.11	3.3	85.4	3.0	10.9	
1.7	0.5	0.5	23	0.02	1.1	0.75	0.4	11.8	2.7	11.1	
5.9	0.9	1.6	31	0.05	3.4	1.19	1.1	45.6	5.8	16.5	
3.1	2.4	1.0	28	0.04	2.0	2.65	1.9	55.0	3.1	272.6	

Sc ppm	Se ppm	Sn ppm	Sr ppm	Te ppm	Th ppm	Tl ppm	U ppm	V ppm	Y ppm	Zn ppm	Zr ppm
2.3	4.0	1.3	54	0.08	4.5	0.49	1.3	11.3	9.9	5.6	39.3
<1.4	26.3	2.2	53	0.11	<3.8	19.79	1.0	8.5	6.7	28.9	58.4
2.8	4.3	1.8	61	0.05	5.3	0.55	1.8	13.7	11.4	6.5	41.5
1.3	3.7	0.9	30	0.02	2.6	0.25	0.8	6.9	5.5	3.3	27.3
2.9	4.1	1.7	63	0.04	5.4	0.55	1.5	14.5	11.5	7.2	49.3
1.9	4.4	3.8	58	0.04	3.4	0.28	1.2	11.2	8.0	4.8	36.1
1.4	3.8	0.7	44	0.02	2.5	0.19	0.7	7.1	6.0	2.9	24.5
2.2	3.5	2.8	61	0.03	4.0	0.27	1.4	11.4	9.4	5.6	35.8
1.7	6.7	1.1	36	0.03	2.7	1.08	0.9	9.6	6.4	5.0	24.8
2.7	10.3	1.3	32	0.05	1.8	1.60	1.1	21.2	4.4	8.8	19.0
0.5	4.9	0.7	32	0.02	0.5	0.55	0.2	2.8	2.6	2.2	4.0
0.8	1.5	0.9	51	0.02	2.0	0.05	0.4	3.6	5.3	1.3	8.7
1.3	3.0	0.7	38	0.01	3.0	0.03	0.7	5.4	9.2	1.8	13.7
4.0	4.3	3.7	44	0.04	8.7	0.09	1.8	18.3	16.9	8.2	41.0
2.7	3.3	3.4	20	0.02	8.8	0.15	3.0	11.4	11.0	5.3	92.2
<1.4	28.1	3.0	48	0.15	<2.8	19.06	1.0	8.4	6.4	28.2	40.0
1.6	6.2	0.9	33	0.03	2.3	0.92	0.9	8.8	6.0	4.1	25.0
43.6	2.5	9.1	964	0.14	80.8	1.50	29.4	205.4	202.4	80.9	672.0
39.6	2.2	10.9	871	0.20	76.4	3.83	21.7	176.4	186.2	69.3	684.3
41.3	18.9	15.7	905	0.88	80.2	4.13	23.4	181.1	187.2	67.2	652.2
39.0	19.6	12.2	876	0.38	77.7	4.17	22.1	171.0	180.1	66.9	584.6
39.3	22.7	11.6	881	0.30	78.6	3.92	21.6	176.1	181.4	61.9	593.8
39.2	13.6	10.4	853	0.26	75.0	3.81	22.6	173.5	183.2	57.8	639.0
38.7	14.9	9.9	849	0.19	74.3	3.35	21.2	175.3	180.6	57.2	595.6
35.0	18.5	9.5	776	0.16	67.5	3.41	20.6	156.4	161.4	51.5	553.3

Sc ppm	Se ppm	Sn ppm	Sr ppm	Te ppm	Th ppm	Tl ppm	U ppm	V ppm	Y ppm	Zn ppm	Zr ppm
35.7	18.4	9.1	795	0.16	67.8	3.44	20.1	161.9	164.5	55.5	585.5
53.8	76.5	47.4	1188	1.16	93.8	24.38	45.5	320.6	225.9	218.8	821.6
53.1	239.0	48.3	1173	1.23	89.1	25.40	46.4	316.6	223.1	220.5	796.4
55.3	9.2	62.8	1214	1.52	87.0	32.06	52.2	375.1	230.4	288.4	797.4
54.2	8.6	57.3	1193	1.33	88.0	29.26	49.3	342.1	229.0	250.2	696.6
55.9	5.4	83.3	1247	2.34	66.4	44.08	59.4	506.6	194.9	507.5	624.4
53.4	6.0	65.4	1187	1.54	78.7	31.85	50.7	378.3	213.5	317.7	758.4
36.8	26.1	59.7	757	<0.10	77.1	1.33	21.7	169.7	174.4	36.1	654.1
36.7	22.6	10.3	823	0.20	69.6	3.92	21.7	164.9	174.1	57.2	539.8
54.1	19.0	60.7	1195	1.52	85.5	30.77	50.0	369.3	224.8	285.4	818.0
13.0	41.4	3.8	99	0.29	3.2	1.46	2.7	204.0	24.3	47.8	26.0
13.0	171.0	<0.74	96	0.31	3.4	1.66	2.9	203.0	24.7	46.1	29.4
4.0	4.6	0.4	84	0.04	1.9	0.18	0.8	24.1	7.7	12.2	20.9
5.5	8.6	1.1	70	0.08	3.2	2.21	1.6	37.4	10.3	20.0	27.3
8.4	9.8	1.6	258	0.13	6.2	1.95	2.3	63.3	11.9	29.5	71.7
17.6	19.9	2.5	764	0.21	13.7	3.64	4.6	109.0	19.2	63.1	186.0
24.4	19.0	23.0	1620	0.30	21.9	1.66	5.6	133.0	28.7	72.1	269.0
8.5	9.8	1.2	234	0.12	7.0	1.95	2.1	57.7	12.1	25.9	77.8
5.8	1.6	<0.5	24	0.05	<1.4	1.49	1.1	37.5	6.9	15.9	33.2
2.5	1.5	0.4	28	0.05	1.6	0.13	0.6	15.3	3.4	11.9	15.1
9.3	2.2	1.2	109	0.14	5.8	0.92	4.0	75.1	14.2	43.1	43.9
6.9	5.4	0.7	31	0.12	2.8	0.31	1.5	48.4	9.5	33.2	27.1
6.4	1.6	0.9	40	0.08	<2	1.36	1.5	60.0	9.1	31.9	70.7
4.5	2.1	0.6	49	0.07	3.2	0.28	0.9	31.0	5.7	22.1	32.8
11.6	2.5	2.3	91	0.18	7.9	0.82	4.2	98.7	14.9	58.5	67.9
3.7	4.1	0.3	36	0.05	2.2	1.34	0.8	26.4	6.3	21.3	17.8
5.4	6.2	0.8	143	0.07	3.4	1.02	1.1	42.8	7.6	35.9	31.8
7.1	7.3	0.8	111	0.10	4.1	1.55	2.0	53.5	10.6	26.3	52.5

Sc ppm	Se ppm	Sn ppm	Sr ppm	Te ppm	Th ppm	Tl ppm	U ppm	V ppm	Y ppm	Zn ppm	Zr ppm
13.7	6.9	2.2	181	0.19	11.4	2.75	3.9	105.0	19.5	78.0	134.0
14.8	2.9	1.4	1120	0.18	5.6	2.01	3.3	99.7	23.0	62.9	98.9
5.8	4.5	0.5	101	0.06	3.1	0.46	1.7	45.5	7.9	21.7	29.5
7.9	3.6	0.9	87	0.13	3.8	1.23	1.5	51.8	8.2	28.4	93.1
2.1	2.9	0.3	146	0.03	1.8	0.05	0.4	11.8	3.3	1.8	9.4
5.8	4.2	2.3	189	0.09	3.9	1.13	1.4	35.1	10.2	45.5	36.4
6.6	4.4	2.6	501	0.11	4.2	1.29	1.5	40.4	10.9	44.2	49.9
18.3	6.0	5.7	573	0.27	14.4	1.70	5.6	128.0	23.0	139.0	95.1
10.0	5.2	3.4	247	0.15	7.1	1.17	2.1	71.3	13.1	91.8	55.5
5.9	4.3	1.2	157	0.05	3.0	0.45	1.0	36.7	8.9	35.3	20.1
3.7	1.9	1.3	48	0.06	1.8	1.04	0.6	19.8	4.8	22.1	17.5
7.9	2.2	7.7	128	0.15	5.3	0.77	1.7	60.5	10.1	47.4	69.3
8.2	2.4	5.2	112	0.16	5.3	0.67	1.6	61.0	10.0	58.5	73.6
3.9	1.9	1.3	81	0.07	1.9	0.38	0.8	29.1	5.3	18.4	24.1
18.3	4.4	10.3	275	0.37	13.5	1.50	3.8	119.0	20.3	97.9	181.0
4.4	4.2	12.0	289	0.11	5.2	0.42	3.5	47.3	8.3	7.1	32.3
1.5	1.4	0.5	31	0.03	1.2	0.09	0.6	16.6	3.7	4.9	9.8
1.3	1.8	0.9	84	0.04	0.7	3.12	1.5	27.2	4.4	12.8	24.2
10.9	3.5	0.9	122	0.04	7.5	0.36	1.6	38.5	15.4	16.9	11.2
2.6	1.2	0.4	81	0.02	2.0	0.08	0.3	11.6	5.8	8.8	10.5
3.4	2.6	1.5	59	0.06	2.0	0.42	1.0	34.7	6.4	14.5	46.1
4.3	5.0	<0.28	230	0.05	4.0	0.20	1.7	27.7	6.1	6.4	36.7
1.8	2.8	0.3	11	0.03	0.3	0.06	0.2	11.8	4.7	6.4	19.8
0.9	2.8	0.7	46	0.04	<0.5	1.93	1.3	22.3	3.2	13.9	8.7
6.6	1.4	0.9	62	0.04	3.6	0.14	1.4	23.7	8.0	8.5	10.5
3.3	2.7	2.1	106	0.06	3.9	0.72	1.2	25.1	5.2	35.0	28.9
4.3	7.7	4.0	44	0.07	4.1	0.21	1.3	26.6	9.7	6.0	32.0
5.5	11.3	4.1	57	0.09	4.4	0.35	1.7	42.6	8.3	9.0	30.1

Sc ppm	Se ppm	Sn ppm	Sr ppm	Te ppm	Th ppm	Tl ppm	U ppm	V ppm	Y ppm	Zn ppm	Zr ppm
2.4	6.9	3.2	42	0.05	1.9	0.10	0.8	14.2	5.4	2.2	22.6
5.1	5.4	2.8	38	0.08	2.7	0.24	1.6	40.3	13.2	18.7	24.2
7.5	6.0	4.0	142	0.11	7.0	1.31	2.1	59.1	11.2	25.2	43.0
6.4	7.1	3.4	71	0.10	4.8	0.73	1.6	46.1	8.9	15.1	60.6
6.6	5.9	3.7	111	0.08	6.8	0.78	1.7	60.2	9.8	25.4	47.7
1.8	6.9	3.8	59	0.04	2.3	1.96	1.5	22.9	10.7	20.0	13.6
6.8	6.2	3.5	102	0.09	6.3	0.80	2.0	52.1	11.4	24.5	60.6
6.3	8.0	3.3	99	0.12	5.9	1.07	1.8	51.9	10.5	16.1	51.5
4.2	5.5	4.1	40	0.07	2.9	0.31	1.2	32.2	7.9	8.4	27.0
4.8	7.6	3.4	58	0.09	3.2	4.46	1.0	40.5	9.0	12.6	29.2
6.4	5.0	4.1	49	0.07	7.4	0.76	1.6	60.1	11.8	23.2	53.8
1.8	5.5	2.0	47	0.06	2.6	0.11	0.9	13.2	4.5	4.9	21.0
10.1	7.0	6.4	54	0.09	7.5	0.46	2.4	74.1	13.9	16.2	48.2
4.2	8.3	2.7	127	0.04	1.4	0.12	0.7	29.6	7.0	5.7	10.9
4.3	5.3	2.7	49	0.08	3.8	0.19	1.2	27.1	10.1	1.6	30.2
4.7	4.9	3.7	43	0.08	3.8	0.13	1.5	26.3	6.4	10.6	34.2
5.6	5.2	2.6	90	0.07	3.5	0.35	1.2	27.2	14.2	4.6	33.4
6.1	7.8	4.5	37	0.09	5.5	1.38	1.6	38.1	12.7	25.7	49.6
4.3	3.8	3.2	34	0.06	2.8	0.23	1.1	40.2	14.7	49.5	14.2
7.0	6.2	3.5	69	0.08	7.6	0.59	1.9	54.1	11.6	21.1	61.1
10.2	5.7	3.6	87	0.13	7.6	0.54	3.1	77.4	13.3	44.9	73.5
2.7	5.6	1.9	80	0.06	2.7	0.34	0.8	19.1	5.1	4.4	23.5
4.6	6.3	2.3	64	0.08	4.1	0.09	1.3	32.6	9.5	4.1	35.3
4.0	2.8	1.9	86	0.09	2.1	0.40	1.8	36.3	10.8	10.5	14.5
2.6	5.9	3.9	82	0.05	1.5	0.42	0.9	19.5	8.0	5.9	11.2
5.5	7.0	3.4	39	0.08	5.8	0.49	1.5	43.3	9.5	10.9	54.7
9.3	9.4	3.4	47	0.11	9.2	0.75	2.6	67.8	12.6	35.7	61.9
5.6	9.0	6.8	44	0.07	6.3	1.08	1.4	34.6	7.8	19.2	39.2

Sc ppm	Se ppm	Sn ppm	Sr ppm	Te ppm	Th ppm	Tl ppm	U ppm	V ppm	Y ppm	Zn ppm	Zr ppm
2.4	2.3	1.7	178	0.05	2.6	0.43	0.4	15.3	3.3	10.5	12.0
7.4	12.9	2.9	126	0.11	6.9	0.41	1.6	58.8	8.3	20.4	22.9
4.4	<0.1	2.3	110	0.06	5.2	1.72	0.9	28.4	6.5	15.2	27.0
9.0	20.6	5.6	240	0.23	9.2	0.34	2.1	33.7	9.3	<0.9	81.5
9.0	14.7	4.7	35	0.14	7.7	0.39	2.6	62.5	17.4	16.6	40.4
5.1	9.2	4.1	101	0.10	4.9	0.19	1.5	36.0	9.5	4.9	25.3
2.7	4.2	3.1	74	0.05	1.9	0.08	0.6	17.8	5.7	46.5	15.0
3.1	6.3	1.8	111	0.06	1.8	0.37	0.9	21.4	6.4	5.5	17.8
6.1	2.1	2.2	91	0.13	6.8	1.06	2.1	53.0	7.8	27.6	32.4
7.0	8.6	9.6	91	0.10	7.7	0.28	1.9	47.4	12.8	8.0	38.1
5.3	6.3	10.7	130	0.08	4.0	0.12	1.7	29.9	9.0	3.7	25.8
6.7	3.7	3.0	241	0.12	4.6	0.42	1.4	57.0	8.0	19.4	45.1
4.2	2.4	2.3	89	0.09	3.9	0.50	1.0	30.2	5.5	23.7	28.9
4.1	6.9	2.3	92	0.08	2.9	0.28	1.2	26.9	5.5	12.1	19.8
3.3	4.8	1.5	99	0.09	3.2	0.44	0.8	25.7	4.7	17.3	22.2
3.1	3.4	1.7	148	0.06	2.7	0.87	0.6	23.1	4.1	11.0	19.3
1.8	1.5	1.2	88	0.03	1.2	0.75	0.2	8.4	2.4	7.6	8.5
11.0	14.2	4.3	277	0.18	8.1	0.54	1.9	74.6	10.8	23.8	73.8
2.2	1.9	1.2	59	0.05	1.6	0.15	0.5	12.2	4.4	14.1	14.8
5.1	1.9	1.8	98	0.08	3.9	1.49	1.1	35.6	8.3	37.0	32.3
4.8	2.0	2.5	301	0.09	2.7	1.22	1.1	32.5	8.3	17.4	21.8
3.3	2.8	1.2	147	0.04	3.3	2.31	0.6	20.3	6.5	22.0	11.8
3.0	5.6	1.9	109	0.07	2.4	0.41	0.9	20.8	6.2	7.7	17.1
6.5	5.4	2.3	214	0.10	3.5	0.26	1.5	37.5	10.9	12.3	23.0
1.4	4.6	1.4	65	0.04	1.1	0.14	0.4	8.5	3.0	1.4	4.8
4.6	6.0	1.8	56	0.08	2.8	0.33	1.0	30.1	9.6	20.0	12.6
5.8	8.9	2.8	51	0.10	4.1	0.53	1.5	33.8	12.8	6.8	36.7
8.1	21.3	2.8	49	0.14	6.6	2.91	2.2	70.1	9.9	37.0	38.8

Sc ppm	Se ppm	Sn ppm	Sr ppm	Te ppm	Th ppm	Tl ppm	U ppm	V ppm	Y ppm	Zn ppm	Zr ppm
4.8	12.3	2.3	50	0.06	4.1	1.25	1.1	36.6	7.8	11.5	26.5
2.7	4.2	1.5	45	0.04	1.6	0.25	0.5	14.8	6.4	1.9	11.4
1.5	3.0	1.3	40	0.04	1.5	0.05	0.3	9.1	3.8	1.1	9.5
7.6	7.3	2.9	43	0.06	5.0	1.64	1.4	47.5	10.4	13.8	43.4
7.0	9.1	2.3	120	0.09	5.4	0.39	1.6	50.2	8.5	7.1	48.7
6.3	6.2	2.6	244	0.08	6.1	0.18	1.6	43.3	8.3	9.8	38.4
7.7	7.2	2.4	104	0.07	5.2	0.37	1.6	57.1	11.0	17.8	37.8
4.6	5.9	1.9	105	0.09	5.1	0.20	1.0	30.5	7.9	9.9	32.2
2.4	5.2	1.3	206	0.07	1.7	0.35	2.0	30.6	3.7	9.9	11.2
3.1	3.8	1.5	240	0.06	2.4	0.09	0.7	19.9	5.3	3.1	20.8
3.5	5.2	1.7	162	0.09	1.7	0.18	0.8	28.4	7.9	13.7	10.8
3.9	6.3	1.8	263	0.10	2.1	0.20	1.2	28.8	7.1	23.5	16.0
4.0	7.7	2.4	79	0.11	3.2	0.37	1.3	36.3	10.3	10.3	23.0
1.2	6.7	0.8	119	0.06	0.7	0.40	0.4	9.8	2.6	3.8	6.2
1.4	2.5	1.4	48	0.04	0.7	0.05	0.5	9.4	6.8	3.5	6.4
3.3	6.3	1.3	40	0.07	2.4	0.16	1.0	20.0	7.0	6.4	24.2
7.2	8.5	2.5	50	0.06	4.2	1.57	1.4	49.2	10.9	14.9	45.3
4.6	6.3	2.5	30	0.07	3.9	0.29	1.5	27.1	6.7	6.5	32.9
7.2	7.1	5.1	28	0.09	5.6	0.20	2.0	40.4	9.1	8.5	50.0
4.1	8.3	2.5	28	0.07	3.8	0.21	1.3	27.9	7.0	7.2	34.9
8.5	8.3	5.2	34	0.10	7.0	0.90	2.4	57.2	2.0	18.8	145.0
6.1	6.9	3.7	42	0.08	5.3	0.38	1.7	36.2	6.4	12.9	44.5
6.0	4.5	3.1	43	0.06	3.1	0.13	1.1	33.7	16.3	7.9	25.5
6.0	8.3	3.5	51	0.07	4.0	0.46	1.4	39.9	9.6	13.3	29.4
7.7	6.2	2.9	5	0.08	6.1	0.43	1.7	56.9	8.5	16.4	79.6
6.6	4.8	2.8	40	0.10	4.5	0.32	2.0	39.4	11.9	14.4	36.7
7.6	8.1	3.9	47	0.11	6.4	0.86	2.2	52.0	7.3	17.8	56.5
5.5	5.7	3.3	164	0.06	4.6	0.27	1.5	31.9	3.2	27.7	36.4

Sc ppm	Se ppm	Sn ppm	Sr ppm	Te ppm	Th ppm	Tl ppm	U ppm	V ppm	Y ppm	Zn ppm	Zr ppm
6.2	5.3	3.8	117	0.05	4.3	0.38	1.3	42.5	5.5	39.0	51.4
3.4	6.2	2.7	76	0.07	3.0	0.11	0.9	20.2	2.4	8.6	32.3
8.2	5.7	3.1	129	0.07	6.5	0.52	1.6	57.0	6.5	19.4	62.5
4.2	1.8	3.6	88	0.04	3.3	0.34	0.9	28.7	4.6	13.0	33.1
2.6	7.8	3.3	67	0.03	1.3	0.07	0.7	15.4	13.0	7.1	8.2
6.5	7.0	2.8	91	0.10	4.8	0.88	2.5	56.8	8.3	39.3	37.2
6.1	7.2	3.2	120	0.10	4.7	0.47	1.9	45.4	6.5	25.9	44.6
2.0	5.2	2.0	94	0.04	1.3	0.11	0.6	10.9	3.8	3.9	22.6
4.3	4.4	2.1	100	0.05	2.8	0.28	1.0	29.5	8.9	21.3	24.4
2.6	2.4	2.0	67	0.06	1.9	0.20	0.7	18.1	4.4	5.2	17.3
2.9	4.5	2.6	61	0.05	1.7	0.15	0.7	21.7	13.9	8.6	13.2
8.1	5.9	3.7	241	0.08	5.6	0.48	2.3	65.2	6.7	49.0	51.5
8.4	4.4	4.3	236	0.10	5.7	0.69	1.9	77.8	4.5	52.7	92.0
2.9	7.0	2.5	76	0.05	2.1	0.21	0.9	26.0	3.5	12.1	21.9
6.9	8.5	3.2	136	0.07	3.5	0.60	1.6	53.2	3.6	27.0	69.3
7.9	6.2	4.7	146	0.10	5.9	0.34	2.3	59.8	8.4	31.8	72.3
4.1	8.7	2.7	85	0.08	3.1	0.54	1.1	28.8	6.6	19.9	37.5
6.8	8.9	3.4	71	0.11	6.6	0.57	2.0	35.9	10.7	15.7	86.3
6.5	5.7	3.1	171	0.07	4.6	1.06	1.4	47.8	5.5	20.6	64.2
3.7	7.2	4.1	55	0.05	3.4	0.36	1.0	29.5	4.4	12.8	36.3
5.3	7.3	3.0	57	0.08	4.0	0.45	1.9	47.1	5.7	26.1	48.0
3.9	3.9	1.3	54	0.07	2.2	1.47	1.8	24.1	14.5	16.9	22.9
5.2	7.5	2.0	105	0.04	2.9	0.61	1.9	31.5	9.8	25.5	23.7
1.4	3.3	1.1	127	0.04	1.5	1.88	0.8	9.4	9.6	7.5	14.3
2.1	3.1	1.7	57	0.05	1.7	0.20	0.8	16.7	10.8	4.8	10.4
1.5	3.8	1.5	77	0.03	1.0	0.14	0.4	12.8	8.1	14.3	5.5
4.3	4.0	1.2	44	0.06	2.2	3.98	3.3	58.5	6.8	15.1	18.3
3.9	4.6	3.0	33	0.06	3.3	0.22	1.3	31.4	8.2	7.0	22.4

Sc ppm	Se ppm	Sn ppm	Sr ppm	Te ppm	Th ppm	Tl ppm	U ppm	V ppm	Y ppm	Zn ppm	Zr ppm
9.1	2.2	2.5	69	0.17	6.3	0.72	3.6	104.0	12.4	46.4	44.4
4.6	4.1	1.3	70	0.11	3.3	0.39	1.8	46.4	8.7	17.3	20.4
7.4	4.1	2.8	110	0.20	5.2	0.59	2.8	71.2	14.0	27.4	34.4
9.7	4.8	25.7	28	0.08	5.6	0.17	2.6	57.4	23.0	10.0	30.9
5.8	5.2	2.7	55	0.06	4.1	0.31	2.1	33.6	7.7	15.1	36.0
23.4	6.9	4.6	435	0.20	19.8	0.29	7.2	108.0	20.1	5.9	91.4
3.8	3.1	3.1	86	0.03	2.4	2.09	1.0	20.8	9.5	6.2	30.2
5.3	3.5	2.2	116	0.08	3.5	1.81	1.5	46.4	8.8	18.4	29.4
11.2	14.3	21.6	261	0.15	7.5	0.37	2.6	103.0	10.0	21.7	49.4
6.4	22.3	8.5	370	0.04	3.1	0.34	1.5	55.1	11.8	14.4	36.0
15.0	23.2	17.9	53	0.12	8.3	1.36	3.2	107.0	24.4	47.3	89.1
4.4	3.3	1.5	129	0.03	1.1	0.58	0.5	20.3	6.6	10.4	20.8
7.4	8.0	2.3	51	0.06	5.5	0.56	1.6	50.5	11.1	17.7	55.9
4.4	4.1	4.6	169	0.07	2.4	0.53	1.8	36.2	6.5	18.3	32.1
3.2	2.3	3.0	69	0.22	1.4	0.56	0.8	21.7	5.2	29.3	21.5
2.3	2.0	2.5	137	0.08	1.5	0.21	0.5	18.2	3.4	12.1	18.0
1.4	0.5	4.6	133	0.04	0.6	0.31	0.4	10.8	3.3	9.8	10.2
6.2	18.8	10.1	82	0.43	4.3	1.60	1.6	44.9	9.5	14.5	30.3
12.1	21.5	7.3	52	0.14	8.4	2.81	4.4	78.9	14.3	29.6	56.0
7.4	4.1	11.8	68	0.11	7.0	0.45	2.1	51.9	10.0	8.3	50.8
3.2	4.3	6.7	67	0.05	2.3	0.16	1.0	20.5	5.4	5.2	21.2
3.8	4.6	10.6	68	0.07	3.5	0.26	2.1	24.6	8.4	7.1	28.9
1.9	3.4	6.5	47	0.05	1.4	0.11	1.0	12.4	4.8	4.1	18.6
4.8	2.0	1.7	46	0.05	2.8	0.80	1.4	41.1	5.8	15.5	31.0
2.4	3.7	4.0	91	0.04	2.2	0.07	0.7	14.6	6.5	7.0	13.6
4.2	5.8	12.0	49	0.07	3.1	0.10	1.0	32.5	8.7	3.8	26.6
2.1	1.6	1.6	120	0.05	1.6	0.37	0.4	15.7	2.8	7.9	
8.1	6.2	5.1	67	0.06	5.3	0.86	2.0	53.6	13.8	30.9	

Sc ppm	Se ppm	Sn ppm	Sr ppm	Te ppm	Th ppm	Tl ppm	U ppm	V ppm	Y ppm	Zn ppm	Zr ppm
4.9	5.2	6.9	35	0.06	2.7	0.54	0.9	32.1	14.0	21.4	
6.4	6.8	5.5	47	0.11	1.9	0.52	1.1	59.5	18.9	12.2	
12.9	10.0	5.3	183	0.10	6.1	3.03	3.6	97.8	17.8	30.9	
7.1	6.1	5.7	91	0.08	1.9	1.41	0.9	49.5	13.4	51.9	
9.1	2.0	9.8	66	0.07	5.6	0.38	2.4	62.0	11.9	42.4	
2.7	1.3	3.4	105	0.03	1.4	0.13	0.4	14.4	6.3	6.7	
9.5	17.5	7.5	287	0.21	8.2	2.78	4.0	67.7	20.5	92.5	
12.9	13.8	9.0	192	0.11	11.6	0.34	3.2	73.6	16.1	29.1	
4.0	1.3	7.1	39	0.03	1.5	3.65	1.3	27.6	16.2	40.2	
10.0	7.4	4.9	43	0.10	7.7	14.58	3.2	76.3	18.7	62.7	
12.9	13.1	6.7	37	0.13	13.9	0.97	3.7	54.1	21.6	52.9	
10.5	8.3	2.6	40	0.16	5.3	0.38	2.3	104.4	16.9	71.2	
11.1	4.9	4.9	64	0.23	7.3	1.48	3.1	106.0	16.9	43.3	
6.1	2.5	3.7	32	0.14	2.4	15.58	0.9	66.4	5.3	91.6	
3.5	4.4	2.4	78	0.04	2.8	0.76	1.7	24.8	6.3	24.5	
4.1	5.0	2.7	124	0.04	2.5	1.44	1.0	33.2	7.4	10.2	
5.0	2.5	2.7	83	0.05	3.6	0.92	1.2	43.5	7.4	23.8	
3.6	8.2	2.7	165	0.05	4.1	1.40	4.5	45.8	8.3	11.5	
2.7	2.6	2.5	93	0.12	2.2	0.18	0.6	22.2	3.5	7.6	
2.1	1.1	1.6	90	0.04	1.4	0.15	0.9	19.6	3.4	6.4	
2.2	2.1	1.7	125	0.06	1.7	0.37	0.4	16.3	3.0	7.8	
7.2	6.4	4.7	163	0.11	5.7	1.24	1.7	54.5	6.1	67.7	
8.1	4.0	3.3	52	0.07	3.7	1.42	1.6	57.0	8.3	91.7	
11.7	13.8	7.7	104	0.14	10.9	0.54	2.6	70.2	13.9	22.7	
2.6	4.1	2.8	64	0.03	0.9	0.07	0.3	16.7	11.9	2.6	
5.3	6.1	3.6	84	0.05	4.4	0.23	1.0	29.5	8.1	7.8	
4.2	4.2	3.2	74	0.06	3.6	0.37	1.0	28.0	5.2	15.0	
2.6	3.7	2.9	71	0.04	1.7	0.37	0.6	13.4	11.2	3.2	

Sc ppm	Se ppm	Sn ppm	Sr ppm	Te ppm	Th ppm	Tl ppm	U ppm	V ppm	Y ppm	Zn ppm	Zr ppm
2.5	3.3	2.2	51	0.04	1.0	0.10	0.7	19.7	10.9	8.7	
8.7	5.8	3.7	48	0.05	6.8	0.50	1.9	57.4	10.7	9.8	
5.3	3.4	3.1	88	0.05	3.2	0.38	1.1	33.4	10.5	27.4	
12.1	8.6	5.3	84	0.05	10.1	0.86	2.2	78.7	12.7	24.4	
2.0	3.4	3.6	71	0.04	1.4	0.11	0.5	16.6	6.7	3.2	
5.4	5.4	5.7	52	0.07	4.2	0.20	1.3	39.5	13.7	5.6	
3.1	8.2	5.8	35	0.04	2.4	0.49	1.0	26.5	8.4	23.6	
3.8	4.7	3.7	27	0.04	2.4	0.14	1.1	20.3	12.3	16.3	
2.9	4.7	3.8	23	0.03	1.5	0.12	0.8	19.6	7.5	7.5	
2.4	4.2	2.9	23	0.02	1.0	0.09	0.5	15.4	11.7	9.0	
9.6	11.0	10.4	181	0.09	7.4	5.02	2.5	72.8	13.3	25.0	
6.3	6.6	8.7	66	0.06	3.2	9.51	3.2	75.9	26.4	72.1	
11.3	14.3	14.0	886	0.16	8.3	2.75	2.3	70.7	18.9	41.7	
5.8	4.6	6.4	77	0.12	3.5	1.74	1.3	45.7	13.0	88.0	
8.1	6.2	7.3	73	0.09	4.3	2.19	2.3	47.5	16.6	54.4	
12.1	8.5	5.6	86	0.05	9.8	0.86	2.3	78.4	13.2	26.1	

Table 4. -- Contents major, minor and trace elements (dry basis) for 729 National Coal Quality Inventc
[blank space indicates no data or not analyzed]

Job number	Laboratory number	Field number	State	County	Formation
Northern Great Plains Province					
ERP00101	E-173222	44-23513	Wyoming	Campbell	Ft. Union Formation
ERP00101	E-173223	44-23514	Wyoming	Campbell	Ft. Union Formation
ERP00101	E-173224	44-23515	Wyoming	Campbell	Ft. Union Formation
ERP00101	E-173225	44-23516	Wyoming	Campbell	Ft. Union Formation
ERP00101	E-173226	44-23517	Wyoming	Campbell	Ft. Union Formation
ERP00101	E-173227	44-23518	Wyoming	Campbell	Ft. Union Formation
ERP00101	E-173228	44-23519	Wyoming	Campbell	Ft. Union Formation
ERP00101	E-173229	44-23520	Wyoming	Campbell	Ft. Union Formation
ERP00101	E-173230	44-23521	Wyoming	Campbell	Ft. Union Formation
ERP00101	E-173231	Silo 2A	Wyoming	Campbell	Ft. Union Formation
ERP00101	E-173232	Silo 2B	Wyoming	Campbell	Ft. Union Formation
ERP00101	E-173233	Silo 4A	Wyoming	Campbell	Ft. Union Formation
ERP00101	E-173234	Silo 4B	Wyoming	Campbell	Ft. Union Formation
ERP00302	E-207028	106A516	Wyoming	Campbell	Ft. Union Formation
ERP00302	E-207029	106B516	Wyoming	Campbell	Ft. Union Formation
ERP00302	E-207030	106C516	Wyoming	Campbell	Ft. Union Formation
ERP00302	E-207031	106D516	Wyoming	Campbell	Ft. Union Formation
ERP00302	E-207032	102A516	Wyoming	Campbell	Ft. Union Formation
ERP00302	E-207033	102B516	Wyoming	Campbell	Ft. Union Formation
ERP00302	E-207034	102C516	Wyoming	Campbell	Ft. Union Formation
ERP00302	E-207035	102D516	Wyoming	Campbell	Ft. Union Formation
ERP00302	E-207036	107REJECT48516	Wyoming	Converse	Ft. Union Formation
ERP00302	E-207037	107REJECT35516	Wyoming	Converse	Ft. Union Formation
ERP00302	E-207038	107REJECT516	Wyoming	Converse	Ft. Union Formation

Table 4. -- Contents major, minor and trace elements (dry basis) for 729 National Coal Quality Inventc
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Job number	Laboratory number	Field number	State	County	Formation
ERP00302	E-207039	107B516PRB	Wyoming	Converse	Ft. Union Formation
ERP00302	E-207040	ANDERSONA516	Wyoming	Converse	Ft. Union Formation
ERP00302	E-207041	ANDERSONB516	Wyoming	Converse	Ft. Union Formation
ERP00302	E-207042	ANDERSONC516	Wyoming	Converse	Ft. Union Formation
ERP00302	E-207043	ANDERSOND516	Wyoming	Converse	Ft. Union Formation
ERP00302	E-207044	CANYONA516	Wyoming	Converse	Ft. Union Formation
ERP00302	E-207045	CANYONB516	Wyoming	Converse	Ft. Union Formation
ERP00302	E-207046	CANYONC516	Wyoming	Converse	Ft. Union Formation
ERP00302	E-207047	CANYOND516	Wyoming	Converse	Ft. Union Formation
ERP00302	E-207048	C3UA515	Wyoming	Campbell	Ft. Union Formation
ERP00302	E-207049	C3UB515	Wyoming	Campbell	Ft. Union Formation
ERP00302	E-207050	C3UC515	Wyoming	Campbell	Ft. Union Formation
ERP00302	E-207051	C3UD515	Wyoming	Campbell	Ft. Union Formation
ERP00302	E-207052	C1-2MA515	Wyoming	Campbell	Ft. Union Formation
ERP00302	E-207053	C1-2MB515	Wyoming	Campbell	Ft. Union Formation
ERP00302	E-207054	C1-2MC515	Wyoming	Campbell	Ft. Union Formation
ERP00302	E-207055	C1-2MD515	Wyoming	Campbell	Ft. Union Formation
ERP00302	E-207056	107REJECT48516	Wyoming	Converse	Ft. Union Formation
ERP00302	E-207057	ANDERSONC516	Wyoming	Converse	Ft. Union Formation
ERP00357	E-217253	7-11A	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217254	7-11B	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217255	7-12A	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217256	7-12B	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217257	7-12C	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217258	7-13A	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217259	7-13B	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217260	7-13C	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217261	7-14A	Wyoming	Campbell	Ft. Union Formation

Table 4. -- Contents major, minor and trace elements (dry basis) for 729 National Coal Quality Inventc
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Job number	Laboratory number	Field number	State	County	Formation
ERP00357	E-217262	7-14B	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217263	7-14C	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217264	7-15A	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217265	7-15B	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217266	7-15C	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217267	7-15D	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217268	7-16B	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217269	7-17A	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217270	7-17B	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217271	7-17C	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217272	605A	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217273	609B	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217274	613B	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217275	614A	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217276	615	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217277	616	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217278	618	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217279	619	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217280	633	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217281	633B	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217282	633C	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217283	7-15C dup	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217284	609B dup	Wyoming	Campbell	Ft. Union Formation
ERP00358	E-217285	634	Wyoming	Campbell	Ft. Union Formation
ERP00358	E-217286	634B	Wyoming	Campbell	Ft. Union Formation
ERP00358	E-217287	634C	Wyoming	Campbell	Ft. Union Formation
ERP00358	E-217288	634D	Wyoming	Campbell	Ft. Union Formation
ERP00358	E-217289	636	Wyoming	Campbell	Ft. Union Formation

Table 4. -- Contents major, minor and trace elements (dry basis) for 729 National Coal Quality Inventc
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Job number	Laboratory number	Field number	State	County	Formation
ERP00358	E-217290	637	Wyoming	Campbell	Ft. Union Formation
ERP00358	E-217291	638	Wyoming	Campbell	Ft. Union Formation
ERP00358	E-217292	638B	Wyoming	Campbell	Ft. Union Formation
ERP00358	E-217293	638C	Wyoming	Campbell	Ft. Union Formation
ERP00358	E-217294	545	Wyoming	Campbell	Ft. Union Formation
ERP00358	E-217295	546	Wyoming	Campbell	Ft. Union Formation
ERP00358	E-217296	550	Wyoming	Campbell	Ft. Union Formation
ERP00358	E-217297	551	Wyoming	Campbell	Ft. Union Formation
ERP00358	E-217298	552	Wyoming	Campbell	Ft. Union Formation
ERP00358	E-217299	81402A	Wyoming	Converse	Ft. Union Formation
ERP00358	E-217300	81402B	Wyoming	Converse	Ft. Union Formation
ERP00358	E-217301	81402C	Wyoming	Converse	Ft. Union Formation
ERP00358	E-217302	81402D	Wyoming	Converse	Ft. Union Formation
ERP00358	E-217303	81402E	Wyoming	Converse	Ft. Union Formation
ERP00358	E-217304	81402F	Wyoming	Converse	Ft. Union Formation
ERP00358	E-217305	81402GHC	Wyoming	Converse	Ft. Union Formation
ERP00358	E-217306	81402HHC	Wyoming	Converse	Ft. Union Formation
ERP00358	E-217307	81402IHC	Wyoming	Converse	Ft. Union Formation
ERP00358	E-217308	81402JHC	Wyoming	Converse	Ft. Union Formation
ERP00358	E-217309	81402KHC	Wyoming	Converse	Ft. Union Formation
ERP00358	E-217310	81402LHC	Wyoming	Converse	Ft. Union Formation
ERP00358	E-217311	81402C3UPPER	Wyoming	Campbell	Ft. Union Formation
ERP00358	E-217312	81402UPPER44	Wyoming	Campbell	Ft. Union Formation
ERP00358	E-217313	81402C1-2	Wyoming	Campbell	Ft. Union Formation
ERP00358	E-217314	81402MIDDLE	Wyoming	Campbell	Ft. Union Formation
ERP00358	E-217315	546 dup	Wyoming	Campbell	Ft. Union Formation
ERP00358	E-217316	637 dup	Wyoming	Campbell	Ft. Union Formation

Table 4. -- Contents major, minor and trace elements (dry basis) for 729 National Coal Quality Inventc
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Job number	Laboratory number	Field number	State	County	Formation
Rocky Mountain Province					
ERP00404	E-224222	717JB1	Wyoming	Sweetwater	Ft. Union Formation
ERP00404	E-224223	717JB2	Wyoming	Sweetwater	Ft. Union Formation
ERP00404	E-224224	717JB3	Wyoming	Sweetwater	Ft. Union Formation
ERP00404	E-224225	717JB4	Wyoming	Sweetwater	Ft. Union Formation
ERP00404	E-224226	717JB5	Wyoming	Sweetwater	Ft. Union Formation
ERP00404	E-224227	717155A	Wyoming	Lincoln	Adaville Formation
ERP00404	E-224228	717155B	Wyoming	Lincoln	Adaville Formation
ERP00404	E-224229	717155C	Wyoming	Lincoln	Adaville Formation
ERP00404	E-224230	717155D	Wyoming	Lincoln	Adaville Formation
ERP00404	E-224231	717365A	Wyoming	Lincoln	Adaville Formation
ERP00404	E-224232	717365B	Wyoming	Lincoln	Adaville Formation
ERP00150	E-186364	19117-SF-1	Colorado	Fremont	Vermejo Formation
ERP00150	E-186365	19118-SF-2	Colorado	Fremont	Vermejo Formation
ERP00150	E-186366	19119-SF-3	Colorado	Fremont	Vermejo Formation
ERP00150	E-186367	19120-SF-4	Colorado	Fremont	Vermejo Formation
ERP00150	E-186368	19324-NH-1	Colorado	Montrose	Dakota Sandstone
ERP00150	E-186369	19326-NH-2	Colorado	Montrose	Dakota Sandstone
ERP00150	E-186370	19328-NH-3	Colorado	Montrose	Dakota Sandstone
ERP00150	E-186371	19330-NH-4	Colorado	Montrose	Dakota Sandstone
ERP00150	E-186372	19332-KC-1	Colorado	La Plata	Menefee Formation
ERP00150	E-186373	19334-KC-2	Colorado	La Plata	Menefee Formation
ERP00150	E-186374	19336-KC-3	Colorado	La Plata	Menefee Formation
ERP00150	E-186375	19338-T-1	Colorado	Routt	Williams Fork Formation
ERP00150	E-186376	19340-T-2	Colorado	Routt	Williams Fork Formation
ERP00150	E-186377	19342-W-ROM	Colorado	Routt	Williams Fork Formation

Table 4. -- Contents major, minor and trace elements (dry basis) for 729 National Coal Quality Inventc
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Job number	Laboratory number	Field number	State	County	Formation
ERP00150	E-186378	19344-S2W-A	Colorado	Routt	Williams Fork Formation
ERP00150	E-186379	19347-Y-1	Colorado	Routt	Williams Fork Formation
ERP00150	E-186380	20473-SC-1	Colorado	Delta	Mesaverde Fm., Bowie Shale Mem
ERP00150	E-186381	20474-TREA-H	Colorado	Moffat	Williams Fork Formation
ERP00150	E-186382	20475-TR-H-M	Colorado	Moffat	Williams Fork Formation
ERP00150	E-186383	20476-DS1-RM	Colorado	Rio Blanco	Mesaverde Formation
ERP00150	E-186384	20477-DS-1-S	Colorado	Rio Blanco	Mesaverde Formation
ERP00150	E-186385	20478-MC1-RM	Colorado	Garfield	Mesaverde Formation
ERP00150	E-186386	20479-BW1-CH	Colorado	Delta	Mesaverde Fm., Bowie Shale Mem
ERP00150	E-186387	20480-BW1-S	Colorado	Delta	Mesaverde Fm., Bowie Shale Mem
ERP00188	E-190603	TR-DR1-QU	Colorado	Moffat	Williams Fork Formation
ERP00188	E-190604	TR-DR2-QM	Colorado	Moffat	Williams Fork Formation
ERP00188	E-190605	Trapper-ROM	Colorado	Moffat	Williams Fork Formation
ERP00188	E-190606	CWO-W-CH	Colorado	Moffat	Williams Fork Formation
ERP00188	E-190607	CWO-ROM	Colorado	Moffat	Williams Fork Formation
ERP00188	E-190608	1-WE-Sales	Colorado	Gunnison	Mesaverde Formation
ERP00188	E-190609	San1-KC	Colorado	La Plata	Menefee Formation
ERP00188	E-190610	San2-NH	Colorado	Montrose	Dakota Sandstone
ERP00188	E-190611	San3-BW2	Colorado	Delta	Mesaverde Fm., Bowie Shale Mem
ERP00188	E-190612	San4-WE	Colorado	Gunnison	Mesaverde Formation
ERP00188	E-190613	San5-SB	Colorado	Delta	Mesaverde Fm., Bowie Shale Mem
ERP00188	E-190614	San6-MC	Colorado	Garfield	Mesaverde Formation
ERP00188	E-190615	Sen2W-01-ROM	Colorado	Routt	Williams Fork Formation
ERP00188	E-190616	Y-01-ROM	Colorado	Routt	Williams Fork Formation
ERP00188	E-190617	FC-01-ROM	Colorado	Routt	Williams Fork Formation
ERP00276	E-203760	20451	Colorado	Gunnison	Mesaverde Formation
ERP00276	E-203761	WEM MCC	Colorado	Gunnison	Mesaverde Formation
ERP00276	E-203762	DES-01-01	Colorado	Rio Blanco	Mesaverde Formation

Table 4. -- Contents major, minor and trace elements (dry basis) for 729 National Coal Quality Inventc
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Job number	Laboratory number	Field number	State	County	Formation
ERP00276	E-203763	DES-02-01	Colorado	Rio Blanco	Mesaverde Formation
ERP00276	E-203764	DES-03-01	Colorado	Rio Blanco	Mesaverde Formation
ERP00276	E-203765	CWO-01-01	Colorado	Moffat	Williams Fork Formation, C seam
ERP00276	E-203766	CWO-02-01	Colorado	Moffat	Williams Fork Formation, D seam
ERP00276	E-203767	CWO-03-01	Colorado	Moffat	Williams Fork Formation, F seam
ERP00276	E-203768	CWO-04-01	Colorado	Moffat	Williams Fork Formation, X seam
ERP00276	E-203769	CWO-05-01	Colorado	Moffat	Williams Fork Formation, B seam
ERP00276	E-203770	CWO-06-01	Colorado	Moffat	Williams Fork Formation, X bed
ERP00276	E-203771	CWO-07-01	Colorado	Moffat	Williams Fork Formation, F bed
ERP00276	E-203772	TRDR-RCHAN	Colorado	Moffat	Williams Fork Formation
ERP00276	E-203773	TRDR-QROM	Colorado	Moffat	Williams Fork Formation
ERP00276	E-203774	LOR-M-01-02	Colorado	Las Animas	Raton Formation
ERP00276	E-203775	LOR-NA-01-02	Colorado	Las Animas	Raton Formation
ERP00276	E-203776	WEM MCC2	Colorado	Gunnison	Mesaverde Formation
Interior Province					
EA52	E-000990	96-C-1H	Oklahoma	Rogers	Senora Formation
EA52	E-000991	96-C-3H	Oklahoma	Nowata	Senora Formation
EA52	E-000992	96-C-4H	Oklahoma	Craig	Senora Formation
ERP00113	E-177446	OKLA-1	Oklahoma	Okmulgee	Senora Formation
ERP00141	E-186010	OPL1143	Oklahoma	Haskell	McAlester Formation
ERP00141	E-186011	OPL1144	Oklahoma	LeFlore	Hartshorne Sandstone
ERP00449	E-242780	OPL-1183	Oklahoma	Nowata	Senora Formation
ERP00449	E-242781	OPL-1184	Oklahoma	Craig	Senora Formation
EA05	E-000037	C34943	Illinois	Vermilion	Carbondale Formation
EB71	E-003207	C33863	Illinois	Douglas	Carbondale Formation

Table 4. -- Contents major, minor and trace elements (dry basis) for 729 National Coal Quality Inventc
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Job number	Laboratory number	Field number	State	County	Formation
EB71	E-003208	C33864	Illinois	Douglas	Carbondale Formation
EB71	E-003209	C33865	Illinois	Douglas	Carbondale Formation
ERP00048	E-138332	C36488	Illinois	Jackson	Tradewater Formation
ERP00048	E-138333	C36489	Illinois	Jackson	Tradewater Formation
ERP00048	E-138334	C36490	Illinois	Jackson	Tradewater Formation
ERP00048	E-138335	C36491	Illinois	Gallatin	Carbondale Formation
ERP00048	E-138336	C36492	Illinois	Gallatin	Carbondale Formation
ERP00048	E-138337	C36493	Illinois	Gallatin	Carbondale Formation
ERP00048	E-138338	C36494	Illinois	Jackson	Carbondale Formation
EB71	E-003186	98126-1	Indiana	Posey	Dugger Formation
EB71	E-003187	98126-2	Indiana	Posey	Dugger Formation
EB71	E-003188	98126-3	Indiana	Posey	Dugger Formation
EB71	E-003189	98126-4	Indiana	Posey	Petersburg Formation
EB71	E-003190	98126-5	Indiana	Posey	Petersburg Formation
EB71	E-003191	98126-6	Indiana	Posey	Petersburg Formation
EB71	E-003192	98126-7	Indiana	Posey	Petersburg Formation
EB71	E-003193	98126-8	Indiana	Posey	Staunton Formation
EB71	E-003194	98126-9	Indiana	Posey	Staunton Formation
EB71	E-003195	98126-10	Indiana	Posey	Staunton Formation
EB71	E-003196	98126-11	Indiana	Posey	Staunton Formation
EB71	E-003197	98126-12	Indiana	Posey	Brazil Formation
EB71	E-003198	98126-13	Indiana	Posey	uncorrelated
EB71	E-003199	98126-14	Indiana	Posey	uncorrelated
EB71	E-003200	98126-15	Indiana	Posey	uncorrelated
EB71	E-003201	98126-16	Indiana	Posey	uncorrelated
EB71	E-003202	98126-17	Indiana	Posey	uncorrelated
EB71	E-003203	98126-18	Indiana	Posey	uncorrelated
EB71	E-003204	98126-19	Indiana	Posey	uncorrelated

Table 4. -- Contents major, minor and trace elements (dry basis) for 729 National Coal Quality Inventc
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Job number	Laboratory number	Field number	State	County	Formation
EB71	E-003205	98126-20	Indiana	Posey	uncorrelated
EB71	E-003206	98126-21	Indiana	Posey	uncorrelated
ERP00238	E-200392	980813B1	Indiana	Clay	Brazil Formation
ERP00238	E-200393	980813B2	Indiana	Clay	Brazil Formation
ERP00238	E-200394	980813B3	Indiana	Clay	Brazil Formation
ERP00238	E-200395	981130A1	Indiana	Greene	Brazil Formation
ERP00238	E-200396	981130A2	Indiana	Greene	Brazil Formation
ERP00238	E-200397	981130A3	Indiana	Greene	Brazil Formation
ERP00238	E-200398	981130A4	Indiana	Greene	Brazil Formation
ERP00238	E-200399	981207A1	Indiana	Greene	Brazil Formation
ERP00238	E-200400	981207A2	Indiana	Greene	Brazil Formation
ERP00238	E-200401	981207A3	Indiana	Greene	Brazil Formation
ERP00238	E-200402	981207A4	Indiana	Greene	Brazil Formation
ERP00238	E-200403	981207B1	Indiana	Greene	Brazil Formation
ERP00238	E-200404	981207B2	Indiana	Greene	Brazil Formation
ERP00238	E-200405	981207B4	Indiana	Greene	Brazil Formation
ERP00238	E-200406	10803A1,0-63	Indiana	Parke	Brazil Formation
ERP00238	E-200407	10803A1,1.6	Indiana	Parke	Brazil Formation
ERP00238	E-200408	10803A2,63-94	Indiana	Parke	Brazil Formation
ERP00238	E-200409	10803A2,1.6	Indiana	Parke	Brazil Formation
ERP00238	E-200410	10803A3,94-131	Indiana	Parke	Brazil Formation
ERP00238	E-200411	10803A3,1.6	Indiana	Parke	Brazil Formation
ERP00238	E-200412	10803B1,0-28	Indiana	Parke	Brazil Formation
ERP00238	E-200413	10803B1,1.6	Indiana	Parke	Brazil Formation
ERP00238	E-200414	10803B2,28-53	Indiana	Parke	Brazil Formation
ERP00238	E-200415	10803B2,1.6	Indiana	Parke	Brazil Formation
ERP00238	E-200416	10803B3,53-73	Indiana	Parke	Brazil Formation
ERP00238	E-200417	10803B3,1.6	Indiana	Parke	Brazil Formation

Table 4. -- Contents major, minor and trace elements (dry basis) for 729 National Coal Quality Inventc
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Job number	Laboratory number	Field number	State	County	Formation
ERP00238	E-200418	10724C1,0-33	Indiana	Sullivan	Dugger Formation
ERP00238	E-200419	10724C1,1.5	Indiana	Sullivan	Dugger Formation
ERP00238	E-200420	10724C2,33-69	Indiana	Sullivan	Dugger Formation
ERP00238	E-200421	10724C2,1.5	Indiana	Sullivan	Dugger Formation
ERP00238	E-200422	10724C3,69-96	Indiana	Sullivan	Dugger Formation
ERP00238	E-200423	10724C3,1.5	Indiana	Sullivan	Dugger Formation
ERP00238	E-200424	10724C4,96-117	Indiana	Sullivan	Dugger Formation
ERP00238	E-200425	10724C4,1.5	Indiana	Sullivan	Dugger Formation
ERP00238	E-200426	981130A3D	Indiana	Greene	Brazil Formation
ERP00238	E-200427	10803A1,1.6D	Indiana	Parke	Brazil Formation
ERP00238	E-200428	10803B3,1.6D	Indiana	Parke	Brazil Formation
ERP00239	E-200429	10724B1,0-34	Indiana	Sullivan	Dugger Formation
ERP00239	E-200430	10724B1,1.5	Indiana	Sullivan	Dugger Formation
ERP00239	E-200431	10724B2,34-70	Indiana	Sullivan	Dugger Formation
ERP00239	E-200432	10724B2,1.5	Indiana	Sullivan	Dugger Formation
ERP00239	E-200433	10724B3,70-93	Indiana	Sullivan	Dugger Formation
ERP00239	E-200434	10724B3,1.5	Indiana	Sullivan	Dugger Formation
ERP00239	E-200435	107241,0-34	Indiana	Sullivan	Dugger Formation
ERP00239	E-200436	107241,1.5	Indiana	Sullivan	Dugger Formation
ERP00239	E-200437	107242,34-63	Indiana	Sullivan	Dugger Formation
ERP00239	E-200438	107242,1.5	Indiana	Sullivan	Dugger Formation
ERP00239	E-200439	107243,65-97	Indiana	Sullivan	Dugger Formation
ERP00239	E-200440	107243,1.5	Indiana	Sullivan	Dugger Formation
ERP00239	E-200441	11006A1,0-15	Indiana	Knox	Dugger Formation
ERP00239	E-200442	11006A1,1.6	Indiana	Knox	Dugger Formation
ERP00239	E-200443	11006A2,15-43	Indiana	Knox	Dugger Formation
ERP00239	E-200444	11006A2,1.6	Indiana	Knox	Dugger Formation
ERP00239	E-200445	11006A3,43-103	Indiana	Knox	Dugger Formation

Table 4. -- Contents major, minor and trace elements (dry basis) for 729 National Coal Quality Inventc
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Job number	Laboratory number	Field number	State	County	Formation
ERP00239	E-200446	11006A3,1.6	Indiana	Knox	Dugger Formation
ERP00239	E-200447	11006A4,103-148	Indiana	Knox	Dugger Formation
ERP00239	E-200448	11006A4, 1.6	Indiana	Knox	Dugger Formation
ERP00239	E-200449	11006AQ, MTRaw	Indiana	Knox	Dugger Formation
ERP00239	E-200450	11006AQ, MT1.6	Indiana	Knox	Dugger Formation
ERP00239	E-200451	11027A1,0-22	Indiana	Spencer	Mansfield Formation
ERP00239	E-200452	11027A1,1.6	Indiana	Spencer	Mansfield Formation
ERP00239	E-200453	11027A2,22-42	Indiana	Spencer	Mansfield Formation
ERP00239	E-200454	11027A2,1.6	Indiana	Spencer	Mansfield Formation
ERP00239	E-200455	11027A3,44-68	Indiana	Spencer	Mansfield Formation
ERP00239	E-200456	11027A3,1.6	Indiana	Spencer	Mansfield Formation
ERP00239	E-200457	11106A1,0-24	Indiana	Spencer	Brazil Formation
ERP00239	E-200458	11106A1,1.6	Indiana	Spencer	Brazil Formation
ERP00239	E-200459	11106A2,24-47	Indiana	Spencer	Brazil Formation
ERP00239	E-200460	11106A2,1.6	Indiana	Spencer	Brazil Formation
ERP00239	E-200461	11106A3,47-57	Indiana	Spencer	Brazil Formation
ERP00239	E-200462	11106A3,1.6	Indiana	Spencer	Brazil Formation
ERP00239	E-200463	11106A4,57-77	Indiana	Spencer	Brazil Formation
ERP00239	E-200464	11106A4,1.6	Indiana	Spencer	Brazil Formation
ERP00239	E-200465	11106A1,1.6D	Indiana	Spencer	Brazil Formation
ERP00239	E-200466	10724B2,34-70D	Indiana	Sullivan	Dugger Formation
ERP00239	E-200467	107242,1.5D	Indiana	Sullivan	Dugger Formation
ERP00255	E-201895	10807A1	Indiana	Greene	Brazil Formation
ERP00255	E-201896	10807A1,1.6	Indiana	Greene	Brazil Formation
ERP00255	E-201897	10807A2	Indiana	Greene	Brazil Formation
ERP00255	E-201898	10807A2,1.6	Indiana	Greene	Brazil Formation
ERP00255	E-201899	10807A3	Indiana	Greene	Brazil Formation
ERP00255	E-201900	10807A3,1.6	Indiana	Greene	Brazil Formation

Table 4. -- Contents major, minor and trace elements (dry basis) for 729 National Coal Quality Inventc
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Job number	Laboratory number	Field number	State	County	Formation
ERP00255	E-201901	10807B1	Indiana	Greene	Mansfield Formation
ERP00255	E-201902	10807B1,1.6	Indiana	Greene	Mansfield Formation
ERP00255	E-201903	10807B2	Indiana	Greene	Mansfield Formation
ERP00255	E-201904	10807B2,1.6	Indiana	Greene	Mansfield Formation
ERP00255	E-201905	10807B3	Indiana	Greene	Mansfield Formation
ERP00255	E-201906	10807B3,1.6	Indiana	Greene	Mansfield Formation
ERP00255	E-201907	10807B4	Indiana	Greene	Mansfield Formation
ERP00255	E-201908	10807B4,1.6	Indiana	Greene	Mansfield Formation
ERP00255	E-201909	CulleyMillB3	Indiana	Spencer	
ERP00255	E-201910	CulleyMillC3	Indiana	Spencer	
ERP00255	E-201911	CulleyMillE3	Indiana	Spencer	
ERP00255	E-201912	CulleyMillB2	Indiana	Spencer	
ERP00255	E-201913	CulleyMillA2	Indiana	Spencer	
ERP00255	E-201914	GEboiler1	Indiana	Knox	
ERP00255	E-201915	GEboiler2	Indiana	Knox	
ERP00255	E-201916	AQProduct	Indiana	Knox	
ERP00255	E-201917	11113A1	Indiana	Warrick	Petersburg Formation
ERP00255	E-201918	11113A1,1.5	Indiana	Warrick	Petersburg Formation
ERP00255	E-201919	11113A2	Indiana	Warrick	Petersburg Formation
ERP00255	E-201920	11113A2,1.5	Indiana	Warrick	Petersburg Formation
ERP00255	E-201921	11113A4	Indiana	Warrick	Petersburg Formation
ERP00255	E-201922	11113A4,1.5	Indiana	Warrick	Petersburg Formation
ERP00255	E-201923	11113A5	Indiana	Warrick	Petersburg Formation
ERP00255	E-201924	11113A5,1.5	Indiana	Warrick	Petersburg Formation
ERP00255	E-201925	11113A6	Indiana	Warrick	Petersburg Formation
ERP00255	E-201926	11113A6,1.5	Indiana	Warrick	Petersburg Formation
ERP00255	E-201927	10807A2D	Indiana	Greene	Brazil Formation
ERP00255	E-201928	11113A4D	Indiana	Warrick	Petersburg Formation

Table 4. -- Contents major, minor and trace elements (dry basis) for 729 National Coal Quality Inventc
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Job number	Laboratory number	Field number	State	County	Formation
ERP00256	E-201929	GEboiler2-2	Indiana	Knox	
ERP00256	E-201930	GEboiler2-4	Indiana	Knox	
ERP00256	E-201931	GEboiler2-6	Indiana	Knox	
ERP00256	E-201932	GEboiler2-8	Indiana	Knox	
ERP00256	E-201933	GEboiler1-1	Indiana	Knox	
ERP00256	E-201934	GEboiler1-3	Indiana	Knox	
ERP00256	E-201935	GEboiler1-5	Indiana	Knox	
ERP00256	E-201936	GEboiler1-7	Indiana	Knox	
ERP00256	E-201937	Geunit1-rph	Indiana	Knox	
ERP00256	E-201938	CulleyUnit3E	Indiana	Spencer	
ERP00256	E-201939	CulleyUnit3W	Indiana	Spencer	
ERP00256	E-201940	CulleyUnit2E	Indiana	Spencer	
ERP00256	E-201941	Culley2+3FGD	Indiana	Spencer	
ERP00256	E-201942	GEboiler2-4D	Indiana	Knox	
ERP00277	E-203777	10803C1,0-30	Indiana	Clay	Brazil Formation
ERP00277	E-203778	10803C1,1.6	Indiana	Clay	Brazil Formation
ERP00277	E-203779	10803C2,30-52	Indiana	Clay	Brazil Formation
ERP00277	E-203780	10803C2,1.6	Indiana	Clay	Brazil Formation
ERP00277	E-203781	10803C3,52-86	Indiana	Clay	Brazil Formation
ERP00277	E-203782	10803C3,1.6	Indiana	Clay	Brazil Formation
ERP00277	E-203783	10803C4,86-110	Indiana	Clay	Brazil Formation
ERP00277	E-203784	10803C4,1.6	Indiana	Clay	Brazil Formation
ERP00277	E-203785	10724D1,0-26	Indiana	Clay	Mansfield Formation
ERP00277	E-203786	10724D1,1.5	Indiana	Clay	Mansfield Formation
ERP00277	E-203787	10724D2,26-48	Indiana	Clay	Mansfield Formation
ERP00277	E-203788	10724D2,1.5	Indiana	Clay	Mansfield Formation
ERP00277	E-203789	10724D3,50-62	Indiana	Clay	Mansfield Formation
ERP00277	E-203790	10724D3,1.5	Indiana	Clay	Mansfield Formation

Table 4. -- Contents major, minor and trace elements (dry basis) for 729 National Coal Quality Inventc
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Job number	Laboratory number	Field number	State	County	Formation
ERP00277	E-203791	10803C1,0-30D	Indiana	Clay	Brazil Formation
ERP00313	E-209604	205241 0-27	Indiana	Gibson	Dugger Formation
ERP00313	E-209605	205241 Float	Indiana	Gibson	Dugger Formation
ERP00313	E-209606	205242 27-61	Indiana	Gibson	Dugger Formation
ERP00313	E-209607	205242 Float	Indiana	Gibson	Dugger Formation
ERP00313	E-209608	205243 61-89	Indiana	Gibson	Dugger Formation
ERP00313	E-209609	205243 Float	Indiana	Gibson	Dugger Formation
ERP00313	E-209610	20524FC 0-89	Indiana	Gibson	Dugger Formation
ERP00313	E-209611	20524FC Float	Indiana	Gibson	Dugger Formation
ERP00313	E-209612	205291 0-33	Indiana	Gibson	Petersburg Formation
ERP00313	E-209613	205291 Float	Indiana	Gibson	Petersburg Formation
ERP00313	E-209614	205292 33-74	Indiana	Gibson	Petersburg Formation
ERP00313	E-209615	205292 Float	Indiana	Gibson	Petersburg Formation
ERP00313	E-209616	205293 74-103	Indiana	Gibson	Petersburg Formation
ERP00313	E-209617	205293 Float	Indiana	Gibson	Petersburg Formation
ERP00313	E-209618	205294 103-143	Indiana	Gibson	Petersburg Formation
ERP00313	E-209619	205294 Float	Indiana	Gibson	Petersburg Formation
ERP00313	E-209620	20524FC FloatD	Indiana	Gibson	Dugger Formation
ERP00313	E-209621	205294 103-143D	Indiana	Gibson	Petersburg Formation
ERP00426	E-229090	20031009-1R	Indiana	Gibson	Petersburg Formation
ERP00426	E-229091	20031009-1F	Indiana	Gibson	Petersburg Formation
ERP00426	E-229092	20031009-2R	Indiana	Gibson	Petersburg Formation
ERP00426	E-229093	20031009-2F	Indiana	Gibson	Petersburg Formation
ERP00426	E-229094	20031009-3R	Indiana	Gibson	Petersburg Formation
ERP00426	E-229095	20031009-3F	Indiana	Gibson	Petersburg Formation
ERP00426	E-229096	20031009-4R	Indiana	Gibson	Petersburg Formation
ERP00426	E-229097	20031009-4F	Indiana	Gibson	Petersburg Formation
ERP00426	E-229098	20030214-1	Indiana	Knox	Dugger Formation

Table 4. -- Contents major, minor and trace elements (dry basis) for 729 National Coal Quality Inventc
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Job number	Laboratory number	Field number	State	County	Formation
ERP00426	E-229099	20030214-2	Indiana	Knox	Dugger Formation
ERP00426	E-229100	20030214-3	Indiana	Knox	Dugger Formation
ERP00426	E-229101	20030214-4	Indiana	Knox	Dugger Formation
ERP00426	E-229102	20030321-A1	Indiana	Daviess	Brazil Formation
ERP00426	E-229103	20030321-A2	Indiana	Daviess	Brazil Formation
ERP00426	E-229104	20030321-A3	Indiana	Daviess	Brazil Formation
ERP00426	E-229105	20030321-A4	Indiana	Daviess	Brazil Formation
ERP00426	E-229106	20030321-B1	Indiana	Daviess	Brazil Formation
ERP00426	E-229107	20030321-B2	Indiana	Daviess	Brazil Formation
ERP00426	E-229108	20030321-B3	Indiana	Daviess	Brazil Formation
ERP00426	E-229109	20030321-B4	Indiana	Daviess	Brazil Formation
ERP00426	E-229110	20030321-C1	Indiana	Daviess	Brazil Formation
ERP00426	E-229111	20030321-C2	Indiana	Daviess	Brazil Formation
ERP00426	E-229113	20030321-C4	Indiana	Daviess	Brazil Formation
ERP00426	E-229114	20030321-C5	Indiana	Daviess	Brazil Formation
ERP00434	E-230453	20031028D-1R	Indiana	Gibson	Petersburg Formation
ERP00434	E-230454	20031028D-1F	Indiana	Gibson	Petersburg Formation
ERP00434	E-230455	20031028D-2R	Indiana	Gibson	Petersburg Formation
ERP00434	E-230456	20031028D-2F	Indiana	Gibson	Petersburg Formation
ERP00434	E-230457	20031028D-3R	Indiana	Gibson	Petersburg Formation
ERP00434	E-230458	20031028D-3F	Indiana	Gibson	Petersburg Formation
ERP00434	E-230459	20031028D-4R	Indiana	Gibson	Petersburg Formation
ERP00434	E-230460	20031028D-4F	Indiana	Gibson	Petersburg Formation
ERP00434	E-230461	2698001-R	Indiana	Gibson	Staunton Formation
ERP00434	E-230462	2698002-F	Indiana	Gibson	Staunton Formation
ERP00434	E-230463	2698004-R	Indiana	Gibson	Staunton Formation
ERP00434	E-230464	2698005-F	Indiana	Gibson	Staunton Formation
ERP00434	E-230465	2698007-R	Indiana	Gibson	Staunton Formation

Table 4. -- Contents major, minor and trace elements (dry basis) for 729 National Coal Quality Inventc
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Job number	Laboratory number	Field number	State	County	Formation
ERP00434	E-230466	2698008-F	Indiana	Gibson	Staunton Formation
ERP00434	E-230467	2698010-R	Indiana	Gibson	Staunton Formation
ERP00434	E-230468	2698011-F	Indiana	Gibson	Staunton Formation
ERP00434	E-230469	2698013-R	Indiana	Gibson	Staunton Formation
ERP00434	E-230470	2698014-F	Indiana	Gibson	Staunton Formation
ERP00434	E-230471	2698016-R	Indiana	Gibson	Staunton Formation
ERP00434	E-230472	2698017-F	Indiana	Gibson	Staunton Formation
ERP00434	E-230473	2698019-R	Indiana	Gibson	Staunton Formation
ERP00434	E-230474	2698020-F	Indiana	Gibson	Staunton Formation
ERP00434	E-230475	2698022-R	Indiana	Gibson	Staunton Formation
ERP00434	E-230476	2698023-F	Indiana	Gibson	Staunton Formation
ERP00434	E-230477	20031028A-1R	Indiana	Gibson	Dugger Formation
ERP00434	E-230478	20031028A-1F	Indiana	Gibson	Dugger Formation
ERP00434	E-230479	20031028A-2R	Indiana	Gibson	Dugger Formation
ERP00434	E-230480	20031028A-2F	Indiana	Gibson	Dugger Formation
ERP00434	E-230481	20031028A-3R	Indiana	Gibson	Dugger Formation
ERP00434	E-230482	20031028A-3F	Indiana	Gibson	Dugger Formation
ERP00434	E-230483	20031028B-1R	Indiana	Gibson	Dugger Formation
ERP00434	E-230484	20031028B-1F	Indiana	Gibson	Dugger Formation
ERP00434	E-230485	20031028B-2R	Indiana	Gibson	Dugger Formation
ERP00434	E-230486	20031028B-2F	Indiana	Gibson	Dugger Formation
ERP00434	E-230487	20031028B-3R	Indiana	Gibson	Dugger Formation
ERP00434	E-230488	20031028B-3F	Indiana	Gibson	Dugger Formation
ERP00434	E-230489	20031028B-4R	Indiana	Gibson	Dugger Formation
ERP00434	E-230490	20031028B-4F	Indiana	Gibson	Dugger Formation
ERP00434	E-230491	20031028C	Indiana	Gibson	Shelburn
ERP00434	E-230492	20031028C	Indiana	Gibson	Shelburn
ERP00650	06500001	BigRun1	Kentucky	Ohio	Unknown

Table 4. -- Contents major, minor and trace elements (dry basis) for 729 National Coal Quality Inventc
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Job number	Laboratory number	Field number	State	County	Formation
ERP00650	06500002	DC0410WKY10	Kentucky	Webster	Carbondale Formation
ERP00650	06500003	DC0410WKY13Ba	Kentucky	Webster	Shelburn Formation
ERP00650	06500004	DC0410WKY9A	Kentucky	Webster	Carbondale Formation
ERP00650	06500005	DC0410WKY9B	Kentucky	Webster	Carbondale Formation
ERP00650	06500006	DC0410WKY9C	Kentucky	Webster	Carbondale Formation
ERP00650	06500007	DC0410WKY9RR	Kentucky	Webster	Carbondale Formation
ERP00650	06500008	DC049WKY10	Kentucky	Webster	Carbondale Formation
ERP00650	06500009	DC049WKY13A	Kentucky	Webster	Shelburn Formation
ERP00650	06500010	DC049WKY13B	Kentucky	Webster	Shelburn Formation
ERP00650	06500011	DC049WKY13C	Kentucky	Webster	Shelburn Formation
ERP00650	06500012	DC049WKY9A	Kentucky	Webster	Carbondale Formation
ERP00650	06500013	DC049WKY9B	Kentucky	Webster	Carbondale Formation
ERP00650	06500014	DC049WKY9C	Kentucky	Webster	Carbondale Formation
ERP00650	06500015	DC049WKY9RR	Kentucky	Webster	Carbondale Formation
ERP00650	06500016	P42WKY6Davis	Kentucky	Hopkins	Carbondale Formation
ERP00650	06500017	P42WKY6DavisRF	Kentucky	Hopkins	Carbondale Formation
ERP00650	06500018	P42WKY8B1	Kentucky	Hopkins	Carbondale Formation
ERP00650	06500019	P42WKY8B2	Kentucky	Hopkins	Carbondale Formation
ERP00650	06500020	P42WKY9A	Kentucky	Hopkins	Carbondale Formation
ERP00650	06500021	P42WKY9B	Kentucky	Hopkins	Carbondale Formation
ERP00650	06500022	P42WKY9C	Kentucky	Hopkins	Carbondale Formation
ERP00650	06500023	P42WKY9RR	Kentucky	Hopkins	Carbondale Formation
ERP00650	06500024	P42WKYColch	Kentucky	Hopkins	Carbondale Formation
ERP00650	06500025	P42WKYColchRR	Kentucky	Hopkins	Carbondale Formation
ERP00650	06500026	P42WKY11A	Kentucky	Hopkins	Shelburn Formation
ERP00650	06500027	P42WKY11B	Kentucky	Hopkins	Shelburn Formation
ERP00650	06500028	P42WKY11C	Kentucky	Hopkins	Shelburn Formation
ERP00650	06500029	P42WKY11D	Kentucky	Hopkins	Shelburn Formation

Table 4. -- Contents major, minor and trace elements (dry basis) for 729 National Coal Quality Inventc
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Job number	Laboratory number	Field number	State	County	Formation
Eastern Province					
ERP-00249	E-201622	92789C	Kentucky	Pulaski	
ERP-00249	E-201623	92790C	Kentucky	Pulaski	
ERP-00249	E-201624	92807C	Kentucky	Pulaski	
ERP-00249	E-201625	92808C	Kentucky	Pulaski	
ERP-00249	E-201626	92809C	Kentucky	Pulaski	
ERP-00249	E-201627	92810C	Kentucky	Pulaski	
ERP-00249	E-201628	92811C	Kentucky	Pulaski	
ERP-00249	E-201629	92812C	Kentucky	Pulaski	
ERP-00249	E-201630	5498C	Kentucky	Knox	Breathitt Formation
ERP-00249	E-201631	5499C	Kentucky	Knox	Breathitt Formation
ERP-00249	E-201632	5500C	Kentucky	Knox	Breathitt Formation
ERP-00249	E-201633	5501C	Kentucky	Knox	Breathitt Formation
ERP-00249	E-201634	5502C	Kentucky	Knox	Breathitt Formation
ERP-00249	E-201635	5503C	Kentucky	Knox	Breathitt Formation
ERP-00249	E-201636	5504C	Kentucky	Knox	Breathitt Formation
ERP-00249	E-201637	92790D	Kentucky	Pulaski	
ERP-00249	E-201638	5498D	Kentucky	Knox	Breathitt Formation
ERP-00250	E-201639	92791A	Kentucky	Pulaski	
ERP-00250	E-201640	92792A	Kentucky	Pulaski	
ERP-00250	E-201641	92793A	Kentucky	Pulaski	
ERP-00250	E-201642	92794A	Kentucky	Pulaski	
ERP-00250	E-201643	92795A	Kentucky	Pulaski	
ERP-00250	E-201644	92796A	Kentucky	Pulaski	
ERP-00250	E-201645	92797A	Kentucky	Pulaski	

Table 4. -- Contents major, minor and trace elements (dry basis) for 729 National Coal Quality Inventc
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Job number	Laboratory number	Field number	State	County	Formation
ERP-00250	E-201646	92798A	Kentucky	Pulaski	
ERP-00250	E-201647	92799A	Kentucky	Pulaski	
ERP-00250	E-201648	92800A	Kentucky	Pulaski	
ERP-00250	E-201649	92801A	Kentucky	Pulaski	
ERP-00250	E-201650	92802A	Kentucky	Pulaski	
ERP-00250	E-201651	92803A	Kentucky	Pulaski	
ERP-00250	E-201652	92804A	Kentucky	Pulaski	
ERP-00250	E-201653	92805A	Kentucky	Pulaski	
ERP-00250	E-201654	92806A	Kentucky	Pulaski	
ERP-00250	E-201655	92794D	Kentucky	Pulaski	
ERP-00250	E-201656	92802D	Kentucky	Pulaski	
ERP00423	E-227705	PAS 1321-1	Pennsylvania	Elk	Allegheny Formation
ERP00423	E-227706	PAS 1321-2	Pennsylvania	Elk	Allegheny Formation
ERP00423	E-227707	PAS 1322	Pennsylvania	Elk	Allegheny Formation
ERP00423	E-227708	PAS 1400	Pennsylvania	Somerset	Allegheny Formation
ERP00423	E-227709	PAS 1401	Pennsylvania	Somerset	Allegheny Formation
ERP00423	E-227710	PAS 1402	Pennsylvania	Somerset	Allegheny Formation
ERP00423	E-227711	PAS 1403	Pennsylvania	Somerset	Allegheny Formation
ERP00423	E-227712	PAS 1404	Pennsylvania	Somerset	Allegheny Formation
ERP00423	E-227713	PAS 1405	Pennsylvania	Somerset	Monongahela Group
ERP00423	E-227714	PAS 1406	Pennsylvania	Somerset	Monongahela Group
ERP00423	E-227715	PAS 1407	Pennsylvania	Somerset	Allegheny Formation
ERP00423	E-227716	PAS 1408	Pennsylvania	Somerset	Allegheny Formation
ERP00423	E-227717	PAS 1409	Pennsylvania	Somerset	Monongahela Group
ERP00423	E-227718	PAS 1410	Pennsylvania	Somerset	Monongahela Group
ERP00423	E-227719	PAS 1411	Pennsylvania	Somerset	Allegheny Formation
ERP00423	E-227720	PAS 1412	Pennsylvania	Somerset	Allegheny Formation
ERP00423	E-227721	PAS 1413	Pennsylvania	Somerset	Allegheny Formation

Table 4. -- Contents major, minor and trace elements (dry basis) for 729 National Coal Quality Inventc
[blank space indicates no data or not analyzed]

Job number	Laboratory number	Field number	State	County	Formation
ERP00423	E-227722	PAS 1414	Pennsylvania	Somerset	Allegheny Formation
ERP00423	E-227723	PAS 1415	Pennsylvania	Somerset	Allegheny Formation
ERP00423	E-227724	PAS 1416	Pennsylvania	Somerset	Allegheny Formation
ERP00423	E-227725	PAS 1417	Pennsylvania	Somerset	Monongahela Group
ERP00423	E-227726	PAS 1418	Pennsylvania	Somerset	Monongahela Group
ERP00423	E-227727	PAS 1419	Pennsylvania	Somerset	Allegheny Formation
ERP00427	E-229115	PAS 1420	Pennsylvania	Elk	Allegheny Formation
ERP00427	E-229116	PAS 1421	Pennsylvania	Elk	Allegheny Formation
ERP00427	E-229117	PAS 1422	Pennsylvania	Elk	Allegheny Formation
ERP00427	E-229118	PAS 1423	Pennsylvania	Elk	Allegheny Formation
ERP00427	E-229119	PAS 1424	Pennsylvania	Elk	Allegheny Formation
ERP00427	E-229120	PAS 1425	Pennsylvania	Washington	Monongahela Group
ERP00427	E-229121	PAS 1426	Pennsylvania	Washington	Monongahela Group
ERP00427	E-229122	PAS 1427	Pennsylvania	Washington	Monongahela Group
ERP00427	E-229123	PAS 1428	Pennsylvania	Washington	Monongahela Group
ERP00427	E-229124	PAS 1429	Pennsylvania	Washington	Monongahela Group
ERP00424	E-227728	DUN-413	Tennessee	Anderson	Breathitt Formation
ERP00424	E-227729	EAG-68	Tennessee	Claiborne	Breathitt Formation
ERP00424	E-227730	NEM-2041	Tennessee	Fentress	Lee Formation
ERP00424	E-227731	PEW-2438	Tennessee	Scott	Breathitt Formation
ERP00424	E-227732	RICH-51	Tennessee	Cumberland	Lee Formation
ERP00424	E-227733	CAR-0315	Tennessee	Morgan	Lee Formation
ERP00424	E-227734	WAL-2182	Tennessee	Scott	Breathitt Formation
ERP00424	E-227735	STR-1389	Tennessee	Claiborne	Breathitt Formation
ERP00424	E-227736	EAG-96S TOP	Tennessee	Claiborne	Breathitt Formation
ERP00424	E-227737	EAG-96S BTM	Tennessee	Claiborne	Breathitt Formation
ERP00063	E-141556	WVGS#18883	West Virginia	Marion	Monongahela Group
ERP00063	E-141557	WVGS#18493	West Virginia	Boone	Allegheny Formation

Table 4. -- Contents major, minor and trace elements (dry basis) for 729 National Coal Quality Inventc
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Job number	Laboratory number	Field number	State	County	Formation
ERP00063	E-141558	WVGS#18505	West Virginia	Boone	Allegheny Formation
ERP00063	E-141559	WVGS#18471	West Virginia	Boone	Allegheny Formation
ERP00063	E-141560	WVGS#18485	West Virginia	Kanawha	Allegheny Formation
ERP00063	E-141561	WVGS#18879	West Virginia	Kanawha	Kanawha Formation
ERP00063	E-141562	WVGS#18882	West Virginia	Kanawha	Kanawha Formation
ERP00063	E-141563	WVGS#18881	West Virginia	Kanawha	Kanawha Formation
ERP00063	E-141564	WVGS#18919	West Virginia	Nicholas	Kanawha Formation
ERP00063	E-141565	WVGS#18852	West Virginia	Webster	Kanawha Formation
ERP00063	E-141566	WVGS#18854	West Virginia	Webster	Kanawha Formation
ERP00063	E-141567	WVGS#18245	West Virginia	Mingo	Kanawha Formation
ERP00063	E-141568	WVGS#18926	West Virginia	Nicholas	Kanawha Formation
ERP00063	E-141569	WVGS#18923	West Virginia	Nicholas	Kanawha Formation
ERP00063	E-141570	WVGS#18609	West Virginia	Boone	Kanawha Formation
ERP00063	E-141571	WVGS#18340	West Virginia	Kanawha	Kanawha Formation
ERP00063	E-141572	WVGS#18456	West Virginia	Kanawha	Kanawha Formation
ERP00063	E-141573	WVGS#18457	West Virginia	Kanawha	Kanawha Formation
ERP00063	E-141574	WVGS#18458	West Virginia	Kanawha	Kanawha Formation
ERP00063	E-141575	WVGS#18443	West Virginia	Kanawha	Kanawha Formation
ERP00063	E-141576	WVGS#18423	West Virginia	Wayne	Allegheny Formation
ERP00063	E-141577	WVGS#18436	West Virginia	Wayne	Allegheny Formation
ERP00063	E-141578	WVGS#18847	West Virginia	Webster	Kanawha Formation
ERP00063	E-141579	WVGS#18850	West Virginia	Webster	Kanawha Formation
ERP00063	E-141580	WVGS#18928	West Virginia	Nicholas	Kanawha Formation
ERP00063	E-141581	WVGS#18907	West Virginia	Nicholas	Kanawha Formation
ERP00063	E-141582	WVGS#18611	West Virginia	Boone	Kanawha Formation
ERP00063	E-141583	WVGS#18596	West Virginia	Boone	Kanawha Formation
ERP00063	E-141584	WVGS#18265	West Virginia	Mingo	Kanawha Formation
ERP00063	E-141585	WVGS#18300	West Virginia	Mingo	Allegheny Formation

Table 4. -- Contents major, minor and trace elements (dry basis) for 729 National Coal Quality Inventc
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Job number	Laboratory number	Field number	State	County	Formation
ERP00063	E-141586	WVGS#18308	West Virginia	Mingo	Allegheny Formation
ERP00075	E-159650	WVGS#18858	West Virginia	Harrison	Monongahela Group
ERP00075	E-159651	WVGS#18855	West Virginia	Grant	Conemaugh Formation
ERP00075	E-159652	WVGS#18869	West Virginia	Preston	Allegheny Formation
ERP00075	E-159653	WVGS#1184	West Virginia	Fayette	Allegheny Formation
ERP00075	E-159654	WVGS#18218	West Virginia	Mingo	Allegheny Formation
ERP00075	E-159655	WVGS#18327	West Virginia	Kanawha	Kanawha Formation
ERP00075	E-159656	WVGS#11497	West Virginia	Raleigh	Kanawha Formation
ERP00075	E-159657	WVGS#18449	West Virginia	Kanawha	Kanawha Formation
ERP00075	E-159658	WVGS#9696	West Virginia	Kanawha	Kanawha Formation
ERP00075	E-159659	WVGS#15952	West Virginia	Webster	Kanawha Formation
ERP00075	E-159660	WVGS#15986	West Virginia	Webster	Kanawha Formation
ERP00075	E-159661	WVGS#18873	West Virginia	Monongalia	Monongahela Group
ERP00075	E-159662	WVGS#18875	West Virginia	Monongalia	Monongahela Group
ERP00075	E-159663	WVGS#18857	West Virginia	Monongalia	Monongahela Group
ERP00075	E-159664	WVGS#18865	West Virginia	Monongalia	Monongahela Group
ERP00075	E-159665	WVGS#18862	West Virginia	Monongalia	Monongahela Group
ERP00075	E-159666	WVGS#18859	West Virginia	Harrison	Monongahela Group
ERP00075	E-159667	WVGS#18866	West Virginia	Grant	Conemaugh Formation
ERP00075	E-159668	WVGS#18867	West Virginia	Grant	Conemaugh Formation
ERP00075	E-159669	WVGS#18868	West Virginia	Grant	Allegheny Formation
ERP00075	E-159670	WVGS#18872	West Virginia	Preston	Allegheny Formation
ERP00075	E-159671	WVGS#18870	West Virginia	Preston	Allegheny Formation
ERP00075	E-159672	WVGS#18449B	West Virginia	Kanawha	Kanawha Formation
ERP00076	E-159673	WVGS#18904	West Virginia	Boone	Kanawha Formation
ERP00076	E-159674	WVGS#11506	West Virginia	Boone	Allegheny Formation
ERP00076	E-159675	WVGS#11505	West Virginia	Boone	Allegheny Formation
ERP00076	E-159676	WVGS#11503	West Virginia	Boone	Allegheny Formation

Table 4. -- Contents major, minor and trace elements (dry basis) for 729 National Coal Quality Inventc
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Job number	Laboratory number	Field number	State	County	Formation
ERP00076	E-159677	WVGS#11502	West Virginia	Boone	Kanawha Formation
ERP00076	E-159678	WVGS#11500	West Virginia	Boone	Kanawha Formation
ERP00076	E-159679	WVGS#11499	West Virginia	Boone	Kanawha Formation
ERP00076	E-159680	WVGS#11498	West Virginia	Boone	Kanawha Formation
ERP00076	E-159681	WVGS#18902	West Virginia	Boone	Kanawha Formation
ERP00076	E-159682	WVGS#18903	West Virginia	Boone	Kanawha Formation
ERP00076	E-159683	WVGS#18991	West Virginia	Boone	Kanawha Formation
ERP00076	E-159684	WVGS#18905	West Virginia	Boone	Kanawha Formation
ERP00076	E-159685	WVGS#7798	West Virginia	Nicholas	Kanawha Formation
ERP00076	E-159686	WVGS#7767	West Virginia	Nicholas	Kanawha Formation
ERP00076	E-159687	WVGS#7796	West Virginia	Nicholas	Kanawha Formation
ERP00076	E-159688	WVGS#7784	West Virginia	Nicholas	Kanawha Formation
ERP00076	E-159689	WVGS#7782	West Virginia	Nicholas	Kanawha Formation
ERP00076	E-159690	WVGS#7775	West Virginia	Nicholas	Kanawha Formation
ERP00076	E-159691	WVGS#7792	West Virginia	Nicholas	Kanawha Formation
ERP00076	E-159692	WVGS#18610	West Virginia	Boone	Kanawha Formation
ERP00076	E-159693	WVGS#9697	West Virginia	Boone	Allegheny Formation
ERP00076	E-159694	WVGS#18902B	West Virginia	Boone	Kanawha Formation
ERP00128	E-183433	WVGS#19478	West Virginia	Boone	Kanawha Formation
ERP00128	E-183434	WVGS#19479	West Virginia	Lincoln	Kanawha Formation
ERP00128	E-183435	WVGS#19483	West Virginia	Lincoln	Allegheny Formation
ERP00128	E-183436	WVGS#19484	West Virginia	Lincoln	Allegheny Formation
ERP00128	E-183437	WVGS#19485	West Virginia	Boone	Kanawha Formation
ERP00128	E-183438	WVGS#19486	West Virginia	Boone	Kanawha Formation
ERP00128	E-183439	WVGS#19488	West Virginia	Boone	Allegheny Formation
ERP00128	E-183440	WVGS#19489	West Virginia	Boone	Kanawha Formation
ERP00128	E-183441	WVGS#19491	West Virginia	Boone	Kanawha Formation
ERP00128	E-183442	WVGS#19492	West Virginia	Lincoln	Kanawha Formation

Table 4. -- Contents major, minor and trace elements (dry basis) for 729 National Coal Quality Inventc
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Job number	Laboratory number	Field number	State	County	Formation
ERP00128	E-183443	WVGS#19588	West Virginia	Logan	Kanawha Formation
ERP00128	E-183444	WVGS#19589	West Virginia	Logan	Kanawha Formation
ERP00128	E-183445	WVGS#19590	West Virginia	Logan	Kanawha Formation
ERP00128	E-183446	WVGS#19591	West Virginia	Logan	Kanawha Formation
ERP00128	E-183447	WVGS#19593A	West Virginia	Logan	Kanawha Formation
ERP00128	E-183448	WVGS#19594	West Virginia	Logan	Kanawha Formation
ERP00128	E-183449	WVGS#19595	West Virginia	Logan	Kanawha Formation
ERP00128	E-183450	WVGS#19596A	West Virginia	Logan	Kanawha Formation
ERP00128	E-183451	WVGS#19597	West Virginia	Logan	Allegheny Formation
ERP00128	E-183452	WVGS#19598	West Virginia	Logan	Kanawha Formation
ERP00128	E-183453	WVGS#19599	West Virginia	Logan	Allegheny Formation
ERP00128	E-183454	WVGS#19600	West Virginia	Logan	Kanawha Formation
ERP00128	E-183455	WVGS#19601	West Virginia	Logan	Kanawha Formation
ERP00128	E-183456	WVGS#19602	West Virginia	Logan	Kanawha Formation
ERP00128	E-183457	WVGS#19603	West Virginia	Logan	Kanawha Formation
ERP00128	E-183458	WVGS#19604	West Virginia	Logan	Kanawha Formation
ERP00128	E-183459	WVGS#19633	West Virginia	Braxton	Kanawha Formation
ERP00128	E-183460	WVGS#19634	West Virginia	Braxton	Kanawha Formation
ERP00128	E-183461	WVGS#20000	West Virginia	Braxton	Kanawha Formation
ERP00128	E-183462	WVGS#20001	West Virginia	Upshur	Allegheny Formation
ERP00128	E-183463	WVGS#19593B	West Virginia	Logan	Kanawha Formation
ERP00128	E-183464	WVGS#19596B	West Virginia	Logan	Kanawha Formation
ERP00369	E-218036	WVGS#20003	West Virginia	Logan	Kanawha Formation
ERP00369	E-218037	WVGS#20009	West Virginia	Logan	Kanawha Formation
ERP00369	E-218038	WVGS#20008	West Virginia	Logan	Kanawha Formation
ERP00369	E-218039	WVGS#20048	West Virginia	Logan	Kanawha Formation
ERP00369	E-218040	WVGS#20047	West Virginia	Logan	Kanawha Formation
ERP00369	E-218041	WVGS#21554	West Virginia	Raleigh	New River Formation

Table 4. -- Contents major, minor and trace elements (dry basis) for 729 National Coal Quality Inventc
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Job number	Laboratory number	Field number	State	County	Formation
ERP00369	E-218042	WVGS#19481	West Virginia	Lincoln	Kanawha Formation
ERP00369	E-218043	WVGS#21517	West Virginia	Upshur	New River Formation
ERP00369	E-218044	WVGS#21509	West Virginia	Upshur	Kanawha Formation
ERP00369	E-218045	WVGS#21536	West Virginia	Upshur	Allegheny Formation
ERP00369	E-218046	WVGS#19490	West Virginia	Boone	Kanawha Formation
ERP00369	E-218047	WVGS#21626	West Virginia	Boone	Kanawha Formation
ERP00369	E-218048	WVGS#21547	West Virginia	Raleigh	New River Formation
ERP00369	E-218049	WVGS#21692	West Virginia	Logan	Kanawha Formation
ERP00369	E-218050	WVGS#21724	West Virginia	Lewis	Kanawha Formation
ERP00369	E-218051	WVGS#21983	West Virginia	Lewis	Allegheny Formation
ERP00369	E-218052	WVGS#21966	West Virginia	Lewis	Allegheny Formation
ERP00369	E-218053	WVGS#21965	West Virginia	Lewis	Allegheny Formation
ERP00369	E-218054	WVGS#21700	West Virginia	Monongalia	Monongahela Group
ERP00369	E-218055	WVGS#9687	West Virginia	Nicholas	Allegheny Formation
ERP00369	E-218056	WVGS#25242	West Virginia	Monongalia	Monongahela Group
ERP00369	E-218057	WVGS#25239	West Virginia	Monongalia	Monongahela Group
ERP00369	E-218058	WVGS#25237	West Virginia	Monongalia	Monongahela Group
ERP00369	E-218059	WVGS#22193	West Virginia	Harrison	Monongahela Group
ERP00369	E-218060	WVGS#22169	West Virginia	Braxton	Allegheny Formation
ERP00369	E-218061	WVGS#22167	West Virginia	Braxton	Allegheny Formation
ERP00369	E-218062	WVGS#22066	West Virginia	Boone	Kanawha Formation
ERP00369	E-218063	WVGS#22295	West Virginia	Boone	Kanawha Formation
ERP00369	E-218064	WVGS#22280	West Virginia	Boone	Kanawha Formation
ERP00369	E-218065	WVGS#22188	West Virginia	Boone	Kanawha Formation
ERP00369	E-218066	WVGS#21673	West Virginia	Raleigh	New River Formation
ERP00369	E-218067	WVGS#22126	West Virginia	Mingo	Kanawha Formation
ERP00369	E-218068	WVGS#22100	West Virginia	Kanawha	Kanawha Formation
ERP00454	E-245990	WVGS#28476D	West Virginia	Marion	Monogahela Group

Table 4. -- Contents major, minor and trace elements (dry basis) for 729 National Coal Quality Inventc
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Job number	Laboratory number	Field number	State	County	Formation
ERP00454	E-245991	WVGS#22047	West Virginia	Braxton	Kanawha Formation
ERP00454	E-245992	WVGS#22049	West Virginia	Braxton	Allegheny Formation
ERP00454	E-245993	WVGS#22140	West Virginia	Braxton	Allegheny Formation
ERP00454	E-245994	WVGS#22186	West Virginia	Braxton	Allegheny Formation
ERP00454	E-245995	WVGS#22205	West Virginia	Braxton	New River Formation
ERP00454	E-245996	WVGS#22215	West Virginia	Braxton	New River Formation
ERP00454	E-245997	WVGS#22225	West Virginia	Braxton	New River Formation
ERP00454	E-245998	WVGS#22253	West Virginia	Braxton	Allegheny Formation
ERP00454	E-245999	WVGS#22254	West Virginia	Braxton	Allegheny Formation
ERP00454	E-246000	WVGS#22256	West Virginia	Braxton	Allegheny Formation
ERP00454	E-246001	WVGS#22264	West Virginia	Braxton	Conemaugh Formation
ERP00454	E-246002	WVGS#25150	West Virginia	Monongalia	Kanawha Formation
ERP00454	E-246003	WVGS#25151	West Virginia	Monongalia	Kanawha Formation
ERP00454	E-246004	WVGS#25190	West Virginia	Monongalia	Kanawha Formation
ERP00454	E-246005	WVGS#25192	West Virginia	Monongalia	Kanawha Formation
ERP00454	E-246006	WVGS#28252	West Virginia	Marshall	Monogahela Group
ERP00454	E-246007	WVGS#28261	West Virginia	Marshall	Monogahela Group
ERP00454	E-246008	WVGS#28293	West Virginia	Marshall	Monogahela Group
ERP00454	E-246009	WVGS#28347	West Virginia	Marshall	Monogahela Group
ERP00454	E-246010	WVGS#28451	West Virginia	Monongalia	Monogahela Group
ERP00454	E-246011	WVGS#28452	West Virginia	Harrison	Monogahela Group
ERP00454	E-246012	WVGS#28476	West Virginia	Marion	Monogahela Group
ERP00455	E-246013	WVGS#16733	West Virginia	Grant	Allegheny Formation
ERP00455	E-246014	WVGS#16748	West Virginia	Grant	Allegheny Formation
ERP00455	E-246015	WVGS#16760	West Virginia	Grant	Allegheny Formation
ERP00455	E-246016	WVGS#17242	West Virginia	Mingo	Kanawha Formation
ERP00455	E-246017	WVGS#17243	West Virginia	Mingo	Kanawha Formation
ERP00455	E-246018	WVGS#17245	West Virginia	Mingo	Kanawha Formation

Table 4. -- Contents major, minor and trace elements (dry basis) for 729 National Coal Quality Inventc
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Job number	Laboratory number	Field number	State	County	Formation
ERP00455	E-246019	WVGS#17246	West Virginia	Mingo	Kanawha Formation
ERP00455	E-246020	WVGS#17247	West Virginia	Mingo	Kanawha Formation
ERP00455	E-246021	WVGS#17248	West Virginia	Mingo	Kanawha Formation
ERP00455	E-246022	WVGS#17259	West Virginia	Logan	Kanawha Formation
ERP00455	E-246023	WVGS#17261	West Virginia	Logan	Kanawha Formation
ERP00455	E-246024	WVGS#17262	West Virginia	Logan	Kanawha Formation
ERP00455	E-246025	WVGS#17264	West Virginia	Logan	Kanawha Formation
ERP00455	E-246026	WVGS#18052	West Virginia	Wayne	Allegheny Formation
ERP00455	E-246027	WVGS#18055	West Virginia	Wayne	Kanawha Formation
ERP00455	E-246028	WVGS#18057	West Virginia	Wayne	Kanawha Formation
ERP00455	E-246029	WVGS#18059	West Virginia	Wayne	Kanawha Formation
ERP00455	E-246030	WVGS#18406	West Virginia	Wayne	Allegheny Formation
ERP00455	E-246031	WVGS#18408	West Virginia	Wayne	Allegheny Formation
ERP00455	E-246032	WVGS#21939	West Virginia	Lewis	Allegheny Formation
ERP00455	E-246033	WVGS#22014	West Virginia	Braxton	Kanawha Formation
ERP00455	E-246034	WVGS#22038	West Virginia	Braxton	Kanawha Formation
ERP00455	E-246035	WVGS#17261D	West Virginia	Logan	Kanawha Formation

ɔry samples.

Coal	Si %	Al %	Ca %	Mg %	Na %	K %	Fe %	Ti %	S %
	2.82	1.40	0.73	0.119	0.101	0.095	0.55	0.077	
	5.17	2.79	1.12	0.197	0.069	0.155	0.41	0.182	
	0.69	0.36	1.12	0.152	0.074	0.008	0.16	0.049	
	0.48	0.40	1.01	0.143	0.072	0.008	0.18	0.042	
	0.34	0.41	0.94	0.146	0.074	0.007	0.19	0.041	
	0.38	0.33	0.90	0.135	0.069	0.007	0.35	0.024	
	1.31	1.07	1.22	0.171	0.074	0.041	0.25	0.085	
	1.31	0.93	1.13	0.167	0.071	0.051	0.24	0.038	
	12.90	5.11	0.66	0.250	0.088	0.622	0.52	0.227	
	0.68	0.46	0.98	0.140	0.110	0.019	0.19	0.033	
	0.71	0.48	1.02	0.144	0.086	0.019	0.19	0.036	
	0.63	0.37	1.02	0.140	0.063	0.010	0.18	0.040	
	0.67	0.39	1.11	0.152	0.070	0.011	0.20	0.042	
Wyodak coal zone	0.94	0.58	1.28	0.162	0.076	0.015	0.25	0.061	0.48
Wyodak coal zone	1.07	0.65	1.26	0.166	0.087	0.020	0.26	0.066	0.45
Wyodak coal zone	0.96	0.61	1.35	0.175	0.091	0.018	0.26	0.064	0.51
Wyodak coal zone	1.12	0.67	0.81	0.173	0.083	0.024	0.27	0.072	0.49
Wyodak coal zone	1.23	0.83	1.25	0.183	0.084	0.032	0.34	0.073	0.54
Wyodak coal zone	1.23	0.82	1.18	0.175	0.082	0.032	0.34	0.072	0.41
Wyodak coal zone	1.04	0.72	1.22	0.175	0.080	0.025	0.31	0.065	0.48
Wyodak coal zone	1.25	0.75	1.24	0.180	0.085	0.035	0.31	0.068	0.47
Wyodak coal zone	1.02	0.63	1.34	0.204	0.084	0.021	0.26	0.068	0.43
Wyodak coal zone	0.94	0.58	1.28	0.183	0.086	0.017	0.23	0.065	0.46
Wyodak coal zone	0.88	0.55	1.22	0.178	0.080	0.016	0.24	0.060	0.47

ɔry samples.

Coal	Si	Al	Ca	Mg	Na	K	Fe	Ti	S
	%	%	%	%	%	%	%	%	%
Wyodak coal zone	0.96	0.60	1.20	0.181	0.080	0.022	0.24	0.065	0.42
Anderson coal	4.22	1.33	1.16	0.277	0.059	0.226	0.61	0.083	0.50
Anderson coal	5.13	1.55	1.32	0.323	0.063	0.296	0.76	0.094	0.45
Anderson coal	3.69	1.25	1.71	0.363	0.060	0.200	0.63	0.083	0.52
Anderson coal	3.71	1.16	1.35	0.290	0.054	0.200	0.55	0.075	0.48
Canyon coal	0.98	0.57	1.17	0.252	0.082	0.027	0.33	0.048	0.26
Canyon coal	1.34	0.58	0.89	0.194	0.080	0.041	0.37	0.051	0.27
Canyon coal	1.65	0.69	1.08	0.233	0.089	0.054	0.41	0.055	0.27
Canyon coal	1.77	0.76	1.20	0.259	0.082	0.057	0.37	0.066	0.31
Wyodak coal zone	1.10	0.74	1.38	0.168	0.103	0.028	0.53	0.053	1.63
Wyodak coal zone	1.49	0.91	1.24	0.156	0.092	0.049	0.61	0.057	1.52
Wyodak coal zone	0.78	0.56	1.18	0.161	0.083	0.019	0.60	0.042	1.66
Wyodak coal zone	1.15	0.80	1.45	0.182	0.092	0.029	0.57	0.059	1.59
Wyodak coal zone	0.77	0.54	1.18	0.200	0.091	0.014	0.32	0.056	1.47
Wyodak coal zone	0.99	0.61	1.32	0.213	0.101	0.016	0.41	0.067	0.50
Wyodak coal zone	0.71	0.47	1.01	0.166	0.073	0.011	0.30	0.051	0.48
Wyodak coal zone	0.89	0.51	1.11	0.181	0.086	0.013	0.32	0.057	0.51
Wyodak coal zone	1.02	0.60	1.18	0.177	0.084	0.024	0.24	0.063	0.44
Anderson coal	4.15	1.30	1.28	0.297	0.063	0.234	0.58	0.079	0.50
Wyodak coal zone	1.33	0.79	1.25	0.195	0.088	0.037	0.30	0.073	0.53
Wyodak coal zone	1.35	0.79	1.19	0.194	0.084	0.038	0.30	0.069	0.54
Wyodak coal zone	1.28	0.83	1.27	0.195	0.087	0.028	0.33	0.075	0.60
Wyodak coal zone	1.27	0.81	1.27	0.188	0.091	0.028	0.32	0.078	0.62
Wyodak coal zone	1.05	0.64	1.25	0.182	0.091	0.020	0.31	0.067	0.60
Wyodak coal zone	1.01	0.68	1.23	0.187	0.091	0.018	0.30	0.065	0.56
Wyodak coal zone	0.92	0.63	1.13	0.170	0.083	0.017	0.27	0.061	0.56
Wyodak coal zone	0.97	0.68	1.31	0.197	0.094	0.017	0.30	0.069	0.54
Wyodak coal zone	1.14	0.72	1.32	0.193	0.092	0.021	0.31	0.070	0.59

ɔry samples.

Coal	Si	Al	Ca	Mg	Na	K	Fe	Ti	S
	%	%	%	%	%	%	%	%	%
Wyodak coal zone	1.11	0.72	1.27	0.189	0.095	0.020	0.30	0.070	0.58
Wyodak coal zone	1.08	0.70	1.34	0.202	0.088	0.020	0.31	0.069	0.62
Wyodak coal zone	0.90	0.61	1.22	0.186	0.091	0.014	0.28	0.062	0.58
Wyodak coal zone	0.91	0.61	1.27	0.186	0.087	0.014	0.28	0.065	0.55
Wyodak coal zone	0.95	0.61	1.24	0.183	0.093	0.014	0.27	0.064	0.56
Wyodak coal zone	0.95	0.62	1.21	0.182	0.093	0.015	0.29	0.064	0.59
Wyodak coal zone	1.00	0.66	1.22	0.183	0.088	0.017	0.29	0.066	0.57
Wyodak coal zone	1.02	0.64	1.20	0.188	0.092	0.019	0.28	0.065	0.63
Wyodak coal zone	1.05	0.64	1.22	0.184	0.093	0.018	0.30	0.067	0.63
Wyodak coal zone	1.08	0.65	1.21	0.186	0.091	0.019	0.29	0.065	0.59
Wyodak coal zone	0.96	0.59	1.14	0.185	0.079	0.018	0.23	0.063	0.44
Wyodak coal zone	0.97	0.57	1.10	0.181	0.079	0.020	0.22	0.060	0.40
Wyodak coal zone	0.96	0.59	1.15	0.186	0.084	0.018	0.24	0.062	0.47
Wyodak coal zone	0.92	0.59	1.12	0.186	0.084	0.017	0.25	0.058	0.46
Wyodak coal zone	1.20	0.73	1.12	0.190	0.074	0.031	0.25	0.066	0.50
Wyodak coal zone	1.06	0.63	1.17	0.192	0.077	0.022	0.24	0.063	0.47
Wyodak coal zone	1.01	0.61	1.12	0.185	0.079	0.021	0.23	0.061	0.47
Wyodak coal zone	1.07	0.65	1.09	0.184	0.078	0.023	0.25	0.060	0.52
Wyodak coal zone	1.29	0.87	1.07	0.184	0.081	0.034	0.33	0.071	0.46
Wyodak coal zone	1.35	0.88	1.16	0.197	0.083	0.033	0.36	0.073	0.49
Wyodak coal zone	1.43	0.87	1.09	0.187	0.079	0.034	0.35	0.073	0.48
Wyodak coal zone	1.02	0.64	1.22	0.184	0.087	0.016	0.30	0.064	0.52
Wyodak coal zone	1.03	0.58	1.19	0.191	0.079	0.020	0.24	0.062	0.43
Wyodak coal zone	1.25	0.80	1.12	0.180	0.085	0.025	0.33	0.071	0.50
Wyodak coal zone	1.20	0.78	1.18	0.184	0.079	0.023	0.31	0.072	0.50
Wyodak coal zone	1.18	0.77	1.11	0.181	0.082	0.022	0.30	0.068	0.51
Wyodak coal zone	1.23	0.78	1.12	0.180	0.081	0.021	0.29	0.071	0.49
Wyodak coal zone	1.38	0.83	1.10	0.176	0.080	0.028	0.31	0.074	0.48

ɔry samples.

Coal	Si	Al	Ca	Mg	Na	K	Fe	Ti	S
	%	%	%	%	%	%	%	%	%
Wyodak coal zone	1.26	0.80	1.10	0.180	0.082	0.022	0.32	0.072	0.48
Wyodak coal zone	1.20	0.77	1.07	0.179	0.079	0.021	0.32	0.069	0.46
Wyodak coal zone	1.24	0.78	1.13	0.184	0.080	0.021	0.33	0.072	0.46
Wyodak coal zone	1.21	0.76	1.11	0.183	0.078	0.019	0.32	0.070	0.50
Wyodak coal zone	0.99	0.66	1.17	0.181	0.088	0.010	0.26	0.067	0.50
Wyodak coal zone	0.95	0.64	1.13	0.179	0.089	0.008	0.25	0.063	0.50
Wyodak coal zone	0.94	0.65	1.22	0.193	0.090	0.009	0.27	0.067	0.53
Wyodak coal zone	0.95	0.63	1.15	0.186	0.086	0.010	0.28	0.063	0.53
Wyodak coal zone	1.10	0.71	1.14	0.182	0.089	0.011	0.30	0.073	0.52
Anderson coal	1.10	0.57	1.23	0.272	0.056	0.031	0.31	0.054	0.45
Anderson coal	0.96	0.49	1.21	0.265	0.054	0.019	0.27	0.048	0.41
Anderson coal	1.21	0.51	1.19	0.258	0.053	0.021	0.23	0.062	0.39
Anderson coal	1.30	0.51	1.23	0.266	0.052	0.022	0.26	0.062	0.38
Anderson coal	1.15	0.51	1.17	0.258	0.049	0.020	0.28	0.057	0.45
Anderson coal	1.32	0.55	1.24	0.267	0.056	0.023	0.30	0.062	0.46
Canyon coal	1.50	0.74	0.88	0.209	0.089	0.031	0.35	0.050	0.25
Canyon coal	1.24	0.67	0.88	0.204	0.089	0.026	0.30	0.047	0.27
Canyon coal	1.21	0.65	0.87	0.202	0.085	0.022	0.38	0.044	0.27
Canyon coal	1.18	0.62	0.84	0.199	0.082	0.019	0.30	0.043	0.28
Canyon coal	1.22	0.67	0.89	0.206	0.091	0.025	0.32	0.047	0.27
Canyon coal	1.38	0.73	0.94	0.222	0.091	0.033	0.34	0.045	0.26
Wyodak coal zone	1.72	1.01	1.10	0.186	0.101	0.048	0.54	0.064	1.01
Wyodak coal zone	1.57	0.91	1.20	0.194	0.104	0.036	0.49	0.062	1.11
Wyodak coal zone	0.97	0.55	1.00	0.186	0.092	0.007	0.30	0.056	0.45
Wyodak coal zone	0.82	0.54	1.10	0.197	0.096	0.003	0.31	0.059	0.43
Wyodak coal zone	0.97	0.64	1.16	0.185	0.091	0.008	0.26	0.065	0.50
Wyodak coal zone	1.18	0.77	1.09	0.179	0.080	0.015	0.31	0.068	0.49

ɔry samples.

Coal	Si %	Al %	Ca %	Mg %	Na %	K %	Fe %	Ti %	S %
	2.23	0.75	0.54	0.157	0.357	0.058	0.36	0.041	0.69
	1.98	0.60	0.63	0.209	0.214	0.026	0.30	0.041	0.57
	0.88	0.31	0.64	0.239	0.024	0.009	0.35	0.024	0.64
	3.11	0.78	0.38	0.096	0.270	0.027	0.29	0.076	0.76
	2.64	0.78	0.29	0.068	0.300	0.032	0.36	0.065	0.77
	0.52	0.20	0.28	0.101	0.102	0.007	0.06	0.011	0.76
	0.87	0.60	0.30	0.099	0.090	0.006	0.07	0.022	0.73
	0.57	0.40	0.33	0.111	0.097	0.006	0.06	0.014	0.73
	0.61	0.26	0.30	0.102	0.091	0.009	0.08	0.012	0.82
	1.20	0.52	0.08	0.015	0.001	0.018	0.45	0.018	2.25
	2.32	0.56	0.07	0.020	0.001	0.046	0.44	0.024	2.07
	2.64	0.75	0.59	0.028	0.123	0.016	0.28	0.041	0.71
	2.98	0.96	1.21	0.064	0.163	0.041	1.63	0.050	2.18
	9.04	3.16	0.61	0.148	0.247	0.277	1.21	0.167	0.82
	2.34	0.68	0.62	0.035	0.122	0.022	0.35	0.040	1.02
	2.73	0.90	1.24	0.064	0.163	0.041	1.34	0.044	1.96
	10.50	5.38	0.29	0.207	0.036	0.704	0.72	0.221	0.59
	11.50	5.71	0.17	0.122	0.046	0.288	1.27	0.154	1.16
	3.55	2.32	0.09	0.017	0.020	0.025	0.10	0.145	0.50
	1.92	1.11	0.04	0.023	0.021	0.022	0.40	0.075	0.92
	0.96	0.78	0.23	0.011	0.009	0.003	0.22	0.040	0.84
	1.63	0.99	0.03	0.012	0.029	0.016	0.56	0.062	1.33
	1.82	1.18	0.35	0.077	0.095	0.050	0.22	0.044	0.56
	1.73	1.32	0.56	0.130	0.086	0.053	0.20	0.055	0.45
Wadge coal	2.21	1.08	0.46	0.100	0.019	0.062	0.21	0.041	0.54

ɔry samples.

Coal	Si %	Al %	Ca %	Mg %	Na %	K %	Fe %	Ti %	S %
	4.22	1.70	0.37	0.138	0.111	0.152	0.25	0.064	0.39
	3.67	1.83	0.54	0.115	0.033	0.159	0.26	0.072	0.51
ıber	2.18	1.04	0.20	0.089	0.264	0.071	0.41	0.041	0.85
	0.67	0.49	0.71	0.074	0.011	0.004	0.20	0.024	0.57
	1.91	1.01	0.73	0.157	0.025	0.075	0.30	0.045	0.58
	4.56	2.27	0.63	0.182	0.158	0.093	0.32	0.090	0.42
	2.62	1.41	0.53	0.160	0.137	0.037	0.32	0.065	0.47
	3.64	1.86	0.10	0.032	0.044	0.053	0.09	0.088	0.60
ıber	0.63	0.61	0.30	0.028	0.032	0.003	0.22	0.026	0.38
ıber	1.21	0.99	0.25	0.042	0.075	0.009	0.32	0.053	0.40
	1.76	0.88	0.60	0.125	0.014	0.035	0.26	0.043	0.70
	1.51	1.00	0.50	0.099	0.008	0.029	0.21	0.045	0.40
	1.53	0.73	0.62	0.133	0.015	0.027	0.22	0.037	0.61
	2.06	1.28	0.49	0.088	0.038	0.097	0.18	0.046	0.44
	1.45	0.92	0.32	0.047	0.085	0.026	0.15	0.039	0.42
	1.96	1.15	0.13	0.081	0.149	0.037	0.32	0.043	0.54
	1.93	1.02	0.05	0.022	0.144	0.038	0.31	0.067	0.82
	6.12	3.27	0.08	0.065	0.074	0.168	0.67	0.131	1.07
ıber	1.75	0.97	0.21	0.059	0.006	0.069	0.38	0.044	0.44
	1.61	1.15	0.20	0.058	0.052	0.025	0.29	0.045	0.56
ıber	2.59	1.13	0.24	0.127	0.208	0.048	0.40	0.047	0.66
	3.01	1.84	0.14	0.032	0.261	0.035	0.16	0.088	0.62
Wadge coal	5.60	1.74	0.45	0.145	0.048	0.215	0.30	0.078	0.40
	1.86	1.15	0.40	0.079	0.072	0.058	0.20	0.045	0.52
	2.61	1.43	0.36	0.091	0.088	0.108	0.28	0.057	0.58
	1.20	0.72	0.11	0.041	0.096	0.038	0.20	0.027	0.60
	1.11	0.70	0.11	0.041	0.086	0.029	0.23	0.027	0.69
	3.83	1.63	0.40	0.156	0.086	0.108	0.39	0.056	0.31

ɔry samples.

Coal	Si %	Al %	Ca %	Mg %	Na %	K %	Fe %	Ti %	S %
	3.17	1.44	0.25	0.123	0.075	0.089	0.22	0.048	0.28
	1.57	0.86	0.28	0.089	0.089	0.025	0.17	0.038	0.35
	0.15	0.13	0.11	0.012	0.033	0.002	0.04	0.005	0.30
	0.52	0.45	0.13	0.022	0.038	0.006	0.07	0.015	0.32
	0.48	0.32	0.13	0.025	0.031	0.008	0.10	0.015	0.52
	0.79	0.49	0.23	0.037	0.142	0.016	0.13	0.022	0.25
	0.37	0.15	0.11	0.029	0.036	0.021	0.07	0.008	0.42
	0.49	0.38	0.20	0.030	0.130	0.007	0.12	0.016	0.24
	0.31	0.27	0.19	0.027	0.038	0.004	0.08	0.012	0.52
	0.55	0.21	0.23	0.055	0.008	0.022	0.17	0.010	0.65
	0.71	0.48	0.33	0.078	0.020	0.015	0.13	0.020	0.35
	1.31	0.81	0.54	0.080	0.015	0.087	0.25	0.041	0.58
	1.34	0.96	0.55	0.087	0.018	0.070	0.32	0.046	0.58
	1.08	0.68	0.12	0.040	0.077	0.030	0.23	0.025	0.73
Iron Post coal									
Iron Post coal									
Croweburg coal									
Mineral coal	0.56	0.33	1.18	0.069	0.026	0.054	1.74	0.016	
Stiger coal	0.49	0.41	0.90	0.057	0.011	0.044	3.33	0.020	
Lower Hartshorne coal	0.85	0.53	1.16	0.641	0.088	0.084	1.75	0.025	
Iron Post coal	0.61	0.26	0.83	0.021	0.023	0.043	1.46	0.015	3.97
Croweburg coal	1.54	0.72	1.26	0.063	0.026	0.164	0.22	0.039	0.50
Danville Coal Member									
Herrin Coal Member	2.22	1.10	0.48	0.107	0.054	0.320	3.21	0.057	

ɔry samples.

Coal	Si	Al	Ca	Mg	Na	K	Fe	Ti	S
	%	%	%	%	%	%	%	%	%
Herrin Coal Member	2.46	1.48	0.16	0.065	0.070	0.232	0.49	0.094	
Springfield Coal Member	3.05	1.29	0.63	0.063	0.070	0.287	4.99	0.078	
Murphysboro Coal Member	1.15	0.73	0.05	0.034	0.009	0.159	1.51	0.039	
Murphysboro Coal Member	1.58	0.92	0.04	0.040	0.007	0.181	2.64	0.049	
Murphysboro Coal Member	1.28	0.69	0.05	0.030	0.007	0.138	1.76	0.039	
Herrin Coal Member	2.32	1.30	0.16	0.056	0.011	0.228	2.98	0.067	
Herrin Coal Member	2.78	1.43	0.12	0.051	0.016	0.228	2.46	0.074	
Herrin Coal Member	2.41	1.27	0.23	0.097	0.017	0.215	1.97	0.067	
Herrin Coal Member	2.00	1.01	0.65	0.080	0.014	0.143	1.45	0.053	
Danville Coal Member	1.86	0.93	0.54	0.061	0.066	0.194	2.37	0.058	
Hymera Coal Member	4.49	1.98	0.60	0.110	0.134	0.409	4.26	0.138	
Herrin Coal Member	1.84	0.93	0.32	0.043	0.059	0.164	2.03	0.059	
Springfield Coal Member	1.76	0.81	0.56	0.032	0.040	0.122	5.61	0.052	
Houchin Creek Coal Member	3.51	1.44	0.22	0.081	0.091	0.318	2.35	0.081	
Survant Coal Member	2.68	1.52	0.22	0.075	0.080	0.269	1.31	0.066	
Colchester Coal Member	3.20	1.42	1.08	0.080	0.069	0.223	6.33	0.053	
Seeleyville Coal Member	1.10	0.56	0.48	0.034	0.042	0.103	4.07	0.030	
Davis Coal Member	1.39	0.83	0.67	0.038	0.038	0.123	5.71	0.051	
Holland Coal Member	3.19	1.58	0.20	0.109	0.112	0.461	6.27	0.091	
Buffaloville Coal Member	0.47	0.27	0.51	0.018	0.026	0.008	3.42	0.016	
Lower Block Coal Member	2.87	1.70	0.26	0.046	0.090	0.255	2.15	0.105	
uncorrelated coal	2.20	1.16	0.37	0.076	0.082	0.267	1.53	0.066	
uncorrelated coal	1.57	0.86	0.09	0.037	0.050	0.135	2.15	0.050	
uncorrelated coal	2.04	1.01	1.36	0.055	0.057	0.189	5.80	0.062	
uncorrelated coal	3.30	1.34	0.91	0.086	0.097	0.346	2.03	0.073	
uncorrelated coal	1.74	1.18	0.19	0.033	0.064	0.148	5.10	0.058	
uncorrelated coal	1.74	1.07	0.04	0.039	0.100	0.178	2.21	0.064	
uncorrelated coal	1.54	0.93	0.06	0.030	0.114	0.134	0.47	0.053	

ɔry samples.

Coal	Si	Al	Ca	Mg	Na	K	Fe	Ti	S
	%	%	%	%	%	%	%	%	%
uncorrelated coal	1.75	0.92	0.66	0.040	0.075	0.167	3.00	0.060	
uncorrelated coal	2.47	1.16	0.43	0.047	0.065	0.196	5.09	0.077	
Upper Block Coal Member	0.52	0.33	0.02	0.008	0.015	0.024	0.20	0.019	0.71
Upper Block Coal Member	1.62	0.85	0.47	0.021	0.022	0.087	0.19	0.058	0.63
Upper Block Coal Member	2.04	1.20	0.11	0.027	0.024	0.074	0.29	0.069	0.69
Lower Block Coal Member	0.84	0.49	0.02	0.011	0.015	0.057	1.38	0.033	2.19
Lower Block Coal Member	1.70	0.91	0.02	0.022	0.025	0.125	0.91	0.061	1.71
Lower Block Coal Member	0.91	0.52	0.02	0.005	0.012	0.017	0.61	0.030	1.38
Lower Block Coal Member	1.08	0.87	0.03	0.011	0.017	0.032	0.85	0.048	1.59
Lower Block Coal Member	0.73	0.43	0.20	0.016	0.030	0.058	1.05	0.025	1.72
Lower Block Coal Member	2.21	1.04	0.14	0.026	0.042	0.137	0.29	0.074	0.71
Lower Block Coal Member	0.80	0.52	0.10	0.010	0.037	0.035	1.29	0.022	2.07
Lower Block Coal Member	1.10	0.79	0.04	0.009	0.031	0.026	0.37	0.049	0.81
Upper Block Coal Member	1.53	0.81	0.10	0.017	0.009	0.076	0.69	0.048	1.29
Upper Block Coal Member	4.44	3.23	0.21	0.072	0.027	0.232	0.56	0.186	1.10
Upper Block Coal Member	2.22	1.96	0.69	0.048	0.021	0.149	2.75	0.067	3.37
Minshall Coal Member	0.85	0.50	0.04	0.018	0.007	0.053	4.09	0.027	6.11
Minshall Coal Member	0.76	0.48	0.03	0.017	0.006	0.048	3.67	0.028	4.99
Minshall Coal Member	0.40	0.34	0.03	0.008	0.004	0.010	3.63	0.013	5.31
Minshall Coal Member	0.35	0.30	0.03	0.009	0.003	0.006	1.64	0.013	3.21
Minshall Coal Member	1.91	1.60	0.04	0.035	0.012	0.177	1.76	0.078	3.32
Minshall Coal Member	1.92	1.58	0.03	0.035	0.012	0.177	1.49	0.079	3.07
Upper Block Coal Member	0.83	0.79	0.14	0.013	0.007	0.038	1.89	0.018	3.03
Upper Block Coal Member	0.68	0.70	0.09	0.011	0.006	0.034	0.82	0.018	1.93
Upper Block Coal Member	0.26	0.24	0.17	0.006	0.004	0.018	2.11	0.010	3.64
Upper Block Coal Member	0.23	0.22	0.10	0.005	0.004	0.017	1.00	0.010	2.06
Upper Block Coal Member	0.55	0.46	0.06	0.012	0.005	0.049	1.64	0.019	2.83
Upper Block Coal Member	0.54	0.43	0.05	0.013	0.005	0.055	0.77	0.022	1.96

ɔry samples.

Coal	Si %	Al %	Ca %	Mg %	Na %	K %	Fe %	Ti %	S %
Danville Coal Member	0.92	0.52	0.29	0.022	0.009	0.083	0.54	0.033	1.53
Danville Coal Member	0.89	0.47	0.06	0.018	0.008	0.082	0.42	0.032	1.37
Danville Coal Member	3.06	1.46	0.12	0.082	0.024	0.289	0.71	0.088	1.42
Danville Coal Member	2.92	1.40	0.04	0.078	0.022	0.283	0.64	0.090	1.35
Danville Coal Member	3.48	1.64	0.06	0.104	0.028	0.339	0.98	0.096	1.53
Danville Coal Member	3.56	1.65	0.04	0.106	0.028	0.345	0.69	0.099	1.33
Danville Coal Member	2.18	1.10	0.05	0.072	0.017	0.201	0.83	0.066	1.62
Danville Coal Member	1.89	0.97	0.04	0.061	0.015	0.176	0.57	0.058	1.30
Lower Block Coal Member	0.96	0.54	0.02	0.005	0.013	0.018	0.39	0.032	1.29
Minshall Coal Member	0.82	0.49	0.03	0.017	0.005	0.051	3.64	0.028	5.24
Upper Block Coal Member	0.56	0.45	0.05	0.013	0.005	0.056	0.80	0.022	1.94
Danville Coal Member	1.22	0.68	0.15	0.029	0.014	0.110	0.58	0.040	1.36
Danville Coal Member	1.20	0.63	0.04	0.028	0.011	0.111	0.42	0.037	1.26
Danville Coal Member	3.38	1.70	0.16	0.103	0.031	0.326	0.91	0.094	1.36
Danville Coal Member	3.30	1.67	0.07	0.103	0.030	0.336	0.52	0.096	1.09
Danville Coal Member	2.33	1.19	0.05	0.077	0.021	0.220	0.80	0.066	1.36
Danville Coal Member	2.16	1.08	0.04	0.071	0.019	0.201	0.76	0.060	1.25
Hymera Coal Member	2.23	0.87	0.28	0.045	0.050	0.155	4.24	0.050	4.89
Hymera Coal Member	0.79	0.35	0.16	0.017	0.018	0.053	3.09	0.021	4.20
Hymera Coal Member	1.03	0.55	0.13	0.021	0.022	0.077	2.20	0.029	3.29
Hymera Coal Member	1.03	0.51	0.07	0.019	0.021	0.076	1.94	0.027	2.89
Hymera Coal Member	3.97	1.62	0.22	0.114	0.066	0.384	2.12	0.103	3.07
Hymera Coal Member	3.69	1.51	0.10	0.105	0.062	0.363	1.97	0.096	2.90
Danville Coal Member	6.38	2.30	0.10	0.231	0.221	0.635	1.00	0.178	0.87
Danville Coal Member	2.08	0.93	0.03	0.066	0.074	0.270	0.47	0.120	0.93
Danville Coal Member	3.71	1.68	0.10	0.114	0.093	0.354	0.40	0.105	0.54
Danville Coal Member	3.80	1.70	0.03	0.103	0.090	0.353	0.35	0.102	0.49
Danville Coal Member	1.62	0.88	0.31	0.053	0.046	0.174	0.20	0.045	0.62

ɔry samples.

Coal	Si	Al	Ca	Mg	Na	K	Fe	Ti	S
	%	%	%	%	%	%	%	%	%
Danville Coal Member	1.62	0.86	0.05	0.049	0.042	0.184	0.17	0.049	0.61
Danville Coal Member	1.83	0.96	0.17	0.074	0.050	0.185	0.50	0.055	0.54
Danville Coal Member	1.85	0.94	0.04	0.067	0.048	0.185	0.32	0.054	0.50
Danville Coal Member	8.51	3.95	0.83	0.495	0.198	0.966	1.87	0.226	0.54
Danville Coal Member	2.76	1.37	0.07	0.099	0.083	0.305	0.40	0.080	0.57
Mariah Hill Coal Member	0.52	0.44	0.23	0.006	0.020	0.016	0.21	0.013	0.86
Mariah Hill Coal Member	0.39	0.36	0.03	0.003	0.017	0.008	0.12	0.010	0.80
Mariah Hill Coal Member	0.37	0.32	0.52	0.006	0.022	0.009	0.20	0.008	0.81
Mariah Hill Coal Member	0.27	0.24	0.01	0.003	0.017	0.008	0.10	0.008	0.78
Mariah Hill Coal Member	1.42	1.12	0.38	0.038	0.039	0.176	0.30	0.051	1.08
Mariah Hill Coal Member	1.16	0.92	0.03	0.029	0.038	0.149	0.22	0.040	1.00
unnamed coal	1.53	0.62	0.09	0.013	0.032	0.057	3.10	0.042	4.14
unnamed coal	1.47	0.59	0.04	0.009	0.031	0.041	1.96	0.043	2.79
unnamed coal	0.52	0.39	0.11	0.004	0.024	0.005	1.18	0.009	2.00
unnamed coal	0.60	0.36	0.05	0.003	0.027	0.004	1.00	0.010	1.67
unnamed coal	1.13	1.09	0.12	0.006	0.032	0.012	0.94	0.018	1.60
unnamed coal	1.10	1.04	0.03	0.006	0.034	0.013	0.56	0.021	1.25
unnamed coal	2.16	1.80	0.08	0.031	0.049	0.102	1.26	0.051	1.70
unnamed coal	2.24	1.81	0.07	0.034	0.049	0.125	1.17	0.053	1.60
unnamed coal	1.53	0.62	0.03	0.009	0.032	0.045	1.80	0.046	3.03
Danville Coal Member	3.14	1.61	0.20	0.104	0.029	0.341	0.93	0.095	1.50
Hymera Coal Member	1.15	0.61	0.05	0.023	0.020	0.091	2.17	0.032	3.16
Lower Block Coal Member	1.08	0.62	0.03	0.021	0.014	0.080	0.18	0.041	0.73
Lower Block Coal Member	1.06	0.58	0.02	0.019	0.013	0.087	0.14	0.043	0.64
Lower Block Coal Member	1.04	0.64	0.04	0.010	0.012	0.034	0.18	0.037	0.73
Lower Block Coal Member	0.87	0.56	0.02	0.009	0.010	0.023	0.11	0.033	0.62
Lower Block Coal Member	0.99	0.81	0.03	0.010	0.014	0.026	0.61	0.055	1.47
Lower Block Coal Member	0.99	0.80	0.02	0.009	0.013	0.026	0.31	0.052	0.87

ɔry samples.

Coal	Si %	Al %	Ca %	Mg %	Na %	K %	Fe %	Ti %	S %
unnamed coal	0.78	0.48	0.03	0.017	0.029	0.077	1.26	0.028	2.46
unnamed coal	0.62	0.39	0.02	0.013	0.029	0.060	1.15	0.025	2.23
unnamed coal	2.36	1.44	0.02	0.021	0.039	0.100	0.36	0.084	0.92
unnamed coal	2.61	1.59	0.02	0.023	0.039	0.096	0.20	0.093	0.68
unnamed coal	1.11	0.82	0.03	0.018	0.029	0.058	0.55	0.036	1.21
unnamed coal	1.03	0.81	0.02	0.015	0.032	0.062	0.19	0.036	0.87
unnamed coal	1.35	1.07	0.02	0.017	0.036	0.072	1.20	0.038	2.14
unnamed coal	1.36	1.07	0.02	0.016	0.034	0.074	0.51	0.042	1.14
prepared coal	2.82	1.41	0.85	0.094	0.072	0.352	2.96	0.071	5.49
prepared coal	2.37	1.20	0.82	0.084	0.064	0.254	2.68	0.065	5.20
prepared coal	2.22	1.08	0.71	0.073	0.052	0.227	2.46	0.059	5.21
prepared coal	2.20	1.13	0.80	0.074	0.059	0.243	2.34	0.058	5.23
prepared coal	2.44	1.24	0.83	0.085	0.061	0.275	2.93	0.065	5.08
prepared coal	2.48	1.18	0.10	0.081	0.076	0.256	0.42	0.080	0.55
prepared coal	2.76	1.27	0.10	0.091	0.104	0.304	0.37	0.090	0.52
prepared coal	2.68	1.29	0.10	0.090	0.095	0.282	0.42	0.083	0.55
Springfield Coal Member	1.91	0.92	0.76	0.059	0.043	0.204	2.91	0.053	6.11
Springfield Coal Member	1.76	0.84	0.23	0.051	0.040	0.178	1.56	0.049	4.41
Springfield Coal Member	2.92	1.46	0.85	0.070	0.059	0.250	0.68	0.082	3.00
Springfield Coal Member	2.26	1.11	0.33	0.051	0.048	0.193	0.69	0.067	3.15
Springfield Coal Member	1.15	0.76	0.54	0.026	0.040	0.098	4.32	0.039	7.19
Springfield Coal Member	1.11	0.75	0.17	0.020	0.040	0.097	0.81	0.037	3.55
Springfield Coal Member	1.75	1.01	0.15	0.051	0.048	0.214	5.61	0.053	8.34
Springfield Coal Member	1.56	0.97	0.04	0.043	0.047	0.186	0.99	0.051	3.87
Springfield Coal Member	3.34	1.60	0.16	0.101	0.071	0.367	1.69	0.101	4.56
Springfield Coal Member	2.71	1.32	0.04	0.080	0.062	0.299	1.35	0.086	4.14
Lower Block Coal Member	1.00	0.62	0.03	0.009	0.013	0.027	0.18	0.037	0.69
Springfield Coal Member	1.23	0.79	0.47	0.025	0.037	0.101	3.95	0.041	6.61

ɔry samples.

Coal	Si	Al	Ca	Mg	Na	K	Fe	Ti	S
	%	%	%	%	%	%	%	%	%
fly ash	21.60	9.72	1.28	0.704	0.543	2.130	4.79	0.606	0.19
fly ash	19.30	8.41	2.00	0.591	0.493	1.740	4.50	0.504	0.20
fly ash	20.20	8.85	1.65	0.651	0.549	1.860	4.85	0.554	0.23
fly ash	24.10	10.90	0.76	0.742	0.669	2.380	3.16	0.738	0.19
fly ash	22.00	10.10	0.90	0.669	0.603	2.210	3.10	0.620	0.35
fly ash	20.60	9.50	0.91	0.631	0.555	2.110	2.93	0.583	0.35
fly ash	16.60	7.75	2.79	0.549	0.376	1.570	4.37	0.390	0.30
fly ash	19.80	9.06	1.36	0.618	0.543	2.060	3.63	0.526	0.33
hopper ash	26.70	11.80	1.13	0.772	0.730	2.530	8.06	0.826	0.30
fly ash	18.80	8.96	5.84	0.580	0.392	1.920	18.60	0.450	0.80
fly ash	18.20	8.67	6.47	0.575	0.350	1.920	20.70	0.433	0.67
fly ash	20.10	10.00	5.93	0.698	0.422	2.240	19.50	0.509	0.70
gypsum	0.62	0.11	25.50	0.028	0.006	0.045	0.24	0.009	20.80
fly ash	19.70	8.39	2.49	0.653	0.510	1.730	6.11	0.463	0.20
Lower Block Coal Member	0.42	0.30	0.02	0.007	0.004	0.016	0.50	0.014	0.98
Lower Block Coal Member	0.43	0.29	0.01	0.007	0.003	0.016	0.04	0.018	0.54
Lower Block Coal Member	0.62	0.39	0.02	0.008	0.005	0.032	0.65	0.022	1.44
Lower Block Coal Member	0.72	0.45	0.01	0.008	0.005	0.039	0.15	0.026	0.61
Lower Block Coal Member	2.00	1.03	0.02	0.023	0.011	0.106	0.50	0.076	1.02
Lower Block Coal Member	1.63	0.91	0.02	0.017	0.009	0.090	0.20	0.069	0.64
Lower Block Coal Member	0.97	0.72	0.02	0.012	0.006	0.023	4.47	0.044	7.12
Lower Block Coal Member	1.15	0.94	0.03	0.013	0.007	0.029	0.51	0.060	1.04
unnamed coal	0.36	0.26	0.02	0.007	0.011	0.013	0.91	0.017	2.09
unnamed coal	0.31	0.23	0.03	0.007	0.011	0.013	0.63	0.017	1.49
unnamed coal	0.39	0.31	0.02	0.009	0.013	0.018	1.48	0.018	2.59
unnamed coal	0.43	0.35	0.02	0.014	0.012	0.023	0.63	0.024	1.50
unnamed coal	0.59	0.46	0.03	0.022	0.015	0.048	1.80	0.025	3.40
unnamed coal	0.62	0.46	0.03	0.024	0.016	0.060	0.61	0.028	1.56

ɔry samples.

Coal	Si	Al	Ca	Mg	Na	K	Fe	Ti	S
	%	%	%	%	%	%	%	%	%
Lower Block Coal Member	0.48	0.34	0.02	0.007	0.004	0.020	0.39	0.017	1.25
Hymera Coal Member	3.15	2.21	0.03	0.088	0.028	0.365	1.33	0.097	3.59
Hymera Coal Member	2.49	1.77	0.02	0.071	0.022	0.284	1.00	0.081	3.18
Hymera Coal Member	1.97	1.34	0.04	0.050	0.020	0.169	0.91	0.070	3.13
Hymera Coal Member	1.79	1.23	0.03	0.043	0.016	0.156	0.67	0.070	2.34
Hymera Coal Member	2.55	1.37	0.03	0.067	0.016	0.221	1.05	0.080	2.90
Hymera Coal Member	2.30	1.26	0.04	0.053	0.015	0.196	0.89	0.065	2.72
Hymera Coal Member	3.26	2.31	0.11	0.093	0.030	0.331	1.07	0.110	3.03
Hymera Coal Member	2.55	1.80	0.08	0.072	0.022	0.268	1.05	0.086	2.83
Springfield Coal Member	2.21	1.26	0.23	0.067	0.050	0.292	2.60	0.089	4.21
Springfield Coal Member	1.99	1.15	0.08	0.066	0.043	0.254	1.43	0.083	4.62
Springfield Coal Member	1.04	0.73	0.21	0.028	0.033	0.120	0.83	0.040	4.03
Springfield Coal Member	1.00	0.70	0.06	0.027	0.032	0.122	0.67	0.041	3.91
Springfield Coal Member	2.27	1.16	0.22	0.047	0.044	0.226	5.15	0.066	4.23
Springfield Coal Member	1.25	0.78	0.14	0.026	0.030	0.110	1.19	0.039	3.31
Springfield Coal Member	2.48	1.17	0.33	0.074	0.062	0.305	1.39	0.069	3.79
Springfield Coal Member	2.41	1.12	0.12	0.067	0.055	0.294	1.06	0.067	4.52
Hymera Coal Member	2.68	1.90	0.08	0.073	0.022	0.278	1.10	0.097	2.46
Springfield Coal Member	2.57	1.20	0.37	0.073	0.061	0.313	1.58	0.069	3.66
Springfield Coal Member	1.21	0.68	0.17	0.027	0.054	0.112	1.16	0.050	2.68
Springfield Coal Member	1.01	0.56	0.13	0.026	0.064	0.099	1.08	0.048	2.25
Springfield Coal Member	0.58	0.39	0.08	0.009	0.054	0.041	0.46	0.027	1.35
Springfield Coal Member	0.53	0.35	0.04	0.010	0.056	0.037	0.50	0.027	1.37
Springfield Coal Member	1.06	0.64	0.03	0.026	0.056	0.117	0.41	0.043	1.14
Springfield Coal Member	1.09	0.66	0.03	0.028	0.054	0.130	0.36	0.046	1.09
Springfield Coal Member	1.47	0.78	0.04	0.045	0.062	0.157	0.38	0.055	1.11
Springfield Coal Member	1.60	0.83	0.03	0.050	0.068	0.170	0.40	0.058	1.11
Danville Coal Member	5.02	1.90	0.39	0.170	0.182	0.529	0.59	0.132	nd

ɔry samples.

Coal	Si	Al	Ca	Mg	Na	K	Fe	Ti	S
	%	%	%	%	%	%	%	%	%
Danville Coal Member	3.90	1.79	0.33	0.109	0.102	0.423	0.29	0.114	0.38
Danville Coal Member	3.87	1.71	0.16	0.132	0.115	0.409	0.36	0.100	0.48
Danville Coal Member									
Upper Block Coal Member	10.20	4.16	0.11	0.141	0.061	0.579	0.58	0.296	1.05
Upper Block Coal Member	3.01	1.28	0.04	0.034	0.017	0.131	0.47	0.097	1.47
Upper Block Coal Member	0.96	0.69	0.03	0.014	0.009	0.039	0.37	0.042	1.37
Upper Block Coal Member	1.19	0.80	0.03	0.021	0.010	0.088	0.65	0.050	1.77
Lower Block Coal Member	0.59	0.32	0.05	0.013	0.017	0.040	0.10	0.025	0.71
Lower Block Coal Member	1.21	0.60	0.02	0.017	0.021	0.100	0.34	0.045	0.95
Lower Block Coal Member	1.93	0.99	0.03	0.028	0.028	0.139	0.07	0.062	0.57
Lower Block Coal Member	1.40	0.87	0.03	0.016	0.036	0.073	3.18	0.037	3.40
Buffaloville Coal Member	2.51	1.22	0.06	0.062	0.027	0.202	3.67	0.062	3.42
Buffaloville Coal Member	2.87	1.43	0.04	0.043	0.013	0.173	1.02	0.107	2.09
Buffaloville Coal Member	6.84	4.47	0.11	0.068	0.028	0.265	1.42	0.249	2.63
Buffaloville Coal Member	2.17	1.18	0.04	0.021	0.011	0.093	2.75	0.069	3.88
Springfield Coal Member	2.15	0.96	0.16	0.057	0.054	0.228	0.81	0.056	3.02
Springfield Coal Member	2.30	1.02	0.08	0.069	0.053	0.257	0.82	0.060	3.28
Springfield Coal Member	2.09	1.06	0.18	0.049	0.053	0.176	0.59	0.057	2.81
Springfield Coal Member	1.67	0.91	0.11	0.040	0.048	0.133	0.51	0.045	2.74
Springfield Coal Member	1.20	0.70	0.73	0.039	0.048	0.125	1.85	0.038	2.93
Springfield Coal Member	1.25	0.75	0.13	0.036	0.046	0.130	0.77	0.042	3.18
Springfield Coal Member	2.04	1.07	0.10	0.074	0.053	0.230	1.14	0.066	2.85
Springfield Coal Member	1.96	1.02	0.08	0.066	0.051	0.225	0.97	0.066	2.89
Seeleyville Coal Member	1.00	0.62	0.01	0.018	0.025	0.080	0.38	0.033	1.31
Seeleyville Coal Member	1.01	0.61	0.01	0.017	0.024	0.080	0.35	0.034	1.54
Seeleyville Coal Member	1.31	0.92	0.03	0.020	0.026	0.068	1.03	0.041	1.60
Seeleyville Coal Member	1.14	0.87	0.03	0.014	0.025	0.051	0.89	0.041	1.67
Seeleyville Coal Member	3.77	2.09	0.01	0.111	0.066	0.443	3.66	0.091	3.07

ɔry samples.

Coal	Si	Al	Ca	Mg	Na	K	Fe	Ti	S
	%	%	%	%	%	%	%	%	%
Seeleyville Coal Member	2.96	1.42	0.02	0.094	0.072	0.337	1.70	0.086	2.82
Seeleyville Coal Member	16.10	7.16	0.04	0.364	0.232	1.880	4.39	0.355	3.65
Seeleyville Coal Member	5.10	2.99	0.06	0.118	0.068	0.420	3.92	0.113	5.90
Seeleyville Coal Member	1.63	0.80	0.43	0.031	0.026	0.110	4.16	0.046	3.49
Seeleyville Coal Member	1.20	0.75	0.06	0.010	0.021	0.035	2.59	0.046	4.80
Seeleyville Coal Member	1.41	0.81	0.86	0.030	0.036	0.118	3.22	0.047	4.79
Seeleyville Coal Member	1.22	0.67	0.08	0.023	0.029	0.097	1.97	0.040	4.24
Seeleyville Coal Member	1.81	0.87	0.39	0.041	0.035	0.171	2.39	0.058	3.87
Seeleyville Coal Member	1.64	0.79	0.07	0.037	0.035	0.162	1.10	0.055	2.65
Seeleyville Coal Member	1.75	0.90	0.30	0.032	0.028	0.134	3.11	0.054	4.65
Seeleyville Coal Member	1.44	0.75	0.04	0.026	0.026	0.106	2.08	0.046	4.45
Upper Millersburg Coal Member	2.42	1.11	0.20	0.073	0.063	0.262	7.33	0.063	6.54
Upper Millersburg Coal Member	2.58	1.23	0.07	0.081	0.072	0.289	2.23	0.070	3.40
Upper Millersburg Coal Member	1.21	0.68	0.20	0.034	0.030	0.118	1.32	0.035	2.96
Upper Millersburg Coal Member	1.16	0.64	0.04	0.039	0.031	0.120	1.37	0.035	2.60
Upper Millersburg Coal Member	2.91	1.42	0.16	0.088	0.071	0.310	2.08	0.082	3.08
Upper Millersburg Coal Member	2.17	1.28	0.03	0.068	0.041	0.239	1.31	0.065	2.10
Upper Millersburg Coal Member	2.43	1.21	0.17	0.043	0.034	0.165	2.59	0.065	2.77
Upper Millersburg Coal Member	2.20	1.10	0.02	0.037	0.037	0.149	2.52	0.060	3.27
Upper Millersburg Coal Member	4.89	1.34	0.90	0.037	0.037	0.132	5.39	0.129	6.90
Upper Millersburg Coal Member	1.57	0.72	0.05	0.025	0.028	0.108	2.21	0.047	2.84
Upper Millersburg Coal Member	1.49	0.95	0.32	0.027	0.036	0.087	1.41	0.034	2.38
Upper Millersburg Coal Member	1.34	0.82	0.08	0.024	0.035	0.086	1.35	0.034	2.43
Upper Millersburg Coal Member	2.21	1.02	0.32	0.033	0.036	0.157	1.61	0.061	3.88
Upper Millersburg Coal Member	1.86	0.87	0.15	0.027	0.030	0.134	1.58	0.054	2.52
Pirtle Coal Member	1.55	0.85	0.34	0.046	0.020	0.178	3.29	0.050	4.02
Pirtle coal	1.32	0.72	0.18	0.036	0.017	0.148	3.29	0.045	4.81
Big Run coal	1.72	0.81	0.18	0.036	0.061	0.141	1.34	0.054	3.20

ɔry samples.

Coal	Si	Al	Ca	Mg	Na	K	Fe	Ti	S
	%	%	%	%	%	%	%	%	%
Briar Hill coal	2.79	1.42	0.17	0.079	0.132	0.318	2.50	0.087	4.13
Baker coal	18.31	7.85	1.66	0.774	1.285	1.752	6.94	0.361	1.01
Springfield coal	1.81	0.69	0.14	0.030	0.050	0.088	2.73	0.044	1.17
Springfield coal	1.18	0.60	1.74	0.287	0.478	0.102	4.20	0.039	6.21
Springfield coal	2.48	0.90	0.34	0.068	0.113	0.205	8.03	0.059	9.89
Springfield coal	20.58	7.45	2.06	1.112	1.848	2.536	4.08	0.327	2.67
uncorrelated coal	2.64	1.36	0.16	0.075	0.125	0.295	2.67	0.082	4.32
Baker coal	1.65	0.86	2.39	0.060	0.099	0.116	8.05	0.052	9.00
Baker coal	1.70	0.88	0.11	0.030	0.050	0.110	1.15	0.045	2.59
Baker coal	2.35	1.03	0.31	0.049	0.082	0.184	1.90	0.064	3.11
Springfield coal	2.56	1.03	0.16	0.052	0.087	0.205	1.00	0.067	2.94
Springfield coal	1.59	0.73	0.36	0.038	0.063	0.130	4.36	0.048	6.57
Springfield coal	2.38	0.94	0.39	0.066	0.110	0.187	4.12	0.065	5.88
Springfield coal	18.42	7.33	1.82	0.778	1.293	2.316	6.62	0.305	6.30
Davis coal	2.54	1.12	0.11	0.066	0.110	0.201	2.60	0.061	4.24
Davis coal	18.55	7.37	1.73	0.830	1.379	2.367	8.16	0.315	8.20
Survant coal	18.59	6.39	4.77	1.073	1.783	2.339	5.24	0.275	3.71
Survant coal	19.48	6.14	0.69	0.907	1.506	2.167	4.22	0.302	3.01
Springfield coal	2.90	1.12	0.11	0.055	0.091	0.234	0.98	0.072	2.79
Springfield coal	1.44	0.69	0.50	0.027	0.045	0.116	6.14	0.044	9.40
Springfield coal	2.57	1.05	0.40	0.063	0.105	0.213	3.47	0.067	5.35
Springfield coal	17.33	6.36	2.65	0.808	1.343	2.221	4.53	0.285	3.59
Colchester coal	3.08	1.27	0.26	0.146	0.242	0.362	3.07	0.077	4.40
Colchester coal	21.95	8.67	0.33	0.957	1.591	2.782	6.59	0.363	5.18
Herrin coal	1.48	0.90	0.15	0.025	0.041	0.097	2.64	0.046	4.61
Herrin coal	1.18	0.68	0.07	0.030	0.049	0.120	0.93	0.042	3.23
Herrin coal	3.90	1.97	0.09	0.044	0.074	0.248	1.04	0.103	3.21
Herrin coal	2.46	1.14	0.14	0.072	0.120	0.246	2.63	0.071	4.29

ory samples.

Coal	Si %	Al %	Ca %	Mg %	Na %	K %	Fe %	Ti %	S %
prepared coal	1.25	0.73	0.07	0.025	0.018	0.064	0.54	0.053	1.41
prepared coal	2.36	0.58	0.23	0.067	0.016	0.119	16.82	0.064	22.83
prepared coal	1.29	0.81	0.06	0.027	0.021	0.068	0.50	0.056	1.32
prepared coal	0.74	0.47	0.04	0.016	0.012	0.047	0.29	0.034	1.46
prepared coal	1.47	0.93	0.08	0.032	0.021	0.084	0.64	0.069	1.37
prepared coal	1.05	0.61	0.07	0.024	0.014	0.050	0.34	0.044	1.14
prepared coal	0.76	0.45	0.05	0.018	0.012	0.030	0.26	0.036	1.04
prepared coal	1.16	0.70	0.08	0.028	0.015	0.053	0.38	0.048	0.97
Dean (Fireclay) coal	0.95	0.56	0.04	0.020	0.014	0.070	0.94	0.037	3.01
Dean (Fireclay) coal	1.50	0.88	0.03	0.041	0.014	0.211	1.40	0.057	4.38
Dean (Fireclay) coal	0.20	0.21	0.03	0.009	0.008	0.009	0.48	0.007	2.21
Dean (Fireclay) coal	0.25	0.26	0.04	0.014	0.025	0.010	0.09	0.009	0.74
Dean (Fireclay) coal	0.66	0.46	0.04	0.013	0.012	0.013	0.07	0.029	0.75
Dean (Fireclay) coal	1.98	1.07	0.04	0.020	0.015	0.061	0.12	0.101	0.83
Dean (Fireclay) coal	1.25	0.84	0.02	0.015	0.007	0.053	0.13	0.057	1.00
prepared coal	2.33	0.58	0.19	0.051	0.013	0.117	16.87	0.067	22.42
Dean (Fireclay) coal	0.81	0.50	0.04	0.018	0.013	0.059	0.76	0.037	2.83
fly ash	23.30	12.91	1.29	0.427	0.311	1.249	12.09	0.958	0.07
fly ash	22.14	12.87	1.21	0.420	0.311	1.192	8.82	0.911	0.14
fly ash	21.72	12.65	1.20	0.420	0.327	1.176	8.21	0.899	0.15
fly ash	21.01	11.39	1.08	0.373	0.323	1.116	6.97	0.803	0.17
fly ash	20.97	11.25	1.06	0.374	0.311	1.167	6.18	0.787	0.16
fly ash	21.74	12.55	1.14	0.407	0.309	1.184	8.38	0.905	0.13
fly ash	21.28	11.98	1.14	0.399	0.302	1.105	8.16	0.848	0.13

ɔry samples.

Coal	Si	Al	Ca	Mg	Na	K	Fe	Ti	S
	%	%	%	%	%	%	%	%	%
fly ash	18.90	10.53	1.01	0.342	0.273	1.045	8.12	0.751	0.17
fly ash	20.57	11.70	1.11	0.380	0.282	1.079	8.21	0.828	0.16
fly ash	21.29	13.98	1.41	0.520	0.446	1.423	5.97	1.077	0.46
fly ash	20.79	13.87	1.46	0.508	0.441	1.406	6.15	1.064	0.53
fly ash	20.54	13.66	1.48	0.542	0.453	1.424	6.67	1.078	0.60
fly ash	18.87	12.66	1.40	0.493	0.455	1.334	5.54	0.959	0.57
fly ash	18.63	13.24	1.44	0.579	0.396	1.604	7.83	0.996	1.17
fly ash	19.71	13.42	1.42	0.572	0.429	1.438	6.82	1.034	0.76
bottom ash	23.32	12.48	1.02	0.384	0.268	1.189	11.84	0.912	0.09
fly ash	17.74	10.23	1.02	0.332	0.291	0.976	6.08	0.752	0.17
fly ash	21.58	14.46	1.48	0.595	0.446	1.423	7.16	1.131	0.61
Lower Kittanning coal	5.17	4.53	0.04	0.080	0.027	0.318	2.56	0.110	0.64
Lower Kittanning coal	5.34	4.69	0.04	0.083	0.026	0.327	2.65	0.113	0.65
Lower Kittanning coal	1.30	1.26	0.06	0.038	0.015	0.119	0.76	0.073	1.16
Lower Kittanning coal	2.56	1.92	0.19	0.038	0.016	0.139	2.68	0.102	3.74
Lower Kittanning coal	5.46	3.45	0.15	0.067	0.029	0.321	2.64	0.222	3.48
Lower Kittanning coal	14.40	8.53	0.16	0.178	0.076	0.924	4.85	0.620	5.13
Lower Kittanning coal	20.80	12.50	0.19	0.203	0.117	1.140	3.46	0.941	3.38
Lower Kittanning coal	5.92	3.78	0.12	0.086	0.031	0.384	2.66	0.258	3.38
Sewickley coal	3.54	1.51	0.07	0.086	0.029	0.307	4.08	0.086	4.90
Redstone coal	1.67	1.00	0.05	0.028	0.053	0.119	0.27	0.051	1.01
Morantown coal	6.79	3.70	0.31	0.176	0.050	0.693	2.53	0.170	3.40
Lower Freeport coal	2.66	2.06	0.11	0.061	0.034	0.247	1.40	0.103	0.86
Sewickley coal	6.74	2.57	0.23	0.148	0.051	0.602	3.03	0.154	3.49
Redstone coal	4.43	1.99	0.06	0.071	0.056	0.355	0.44	0.107	1.03
Morantown coal	10.50	5.46	0.24	0.280	0.072	1.160	2.18	0.244	2.23
Lower Freeport coal	1.54	1.27	0.09	0.033	0.034	0.102	1.18	0.064	2.04
Upper Kittanning coal	3.46	2.24	0.60	0.078	0.027	0.286	2.00	0.121	2.87

ɔry samples.

Coal	Si	Al	Ca	Mg	Na	K	Fe	Ti	S
	%	%	%	%	%	%	%	%	%
Lower Kittanning coal	4.27	2.70	0.14	0.065	0.027	0.297	2.43	0.166	3.25
	18.10	8.77	1.81	0.426	0.115	1.760	6.07	0.473	5.14
	10.40	5.17	0.48	0.170	0.081	0.846	5.33	0.272	2.10
Pittsburgh coal	2.69	1.70	0.20	0.061	0.022	0.229	1.18	0.093	4.92
Blue Lick coal	4.00	3.81	0.32	0.108	0.048	0.167	0.71	0.284	2.85
	1.03	0.54	0.01	0.016	0.049	0.090	0.40	0.029	2.49
Lower Kittanning coal	3.06	1.77	0.12	0.063	0.014	0.269	1.93	0.117	2.46
Lower Kittanning coal	4.59	2.54	0.10	0.084	0.020	0.354	2.44	0.185	2.80
Lower Kittanning coal	14.00	7.67	0.22	0.458	0.072	1.700	4.46	0.382	3.47
Lower Kittanning coal	7.44	4.14	0.14	0.275	0.039	0.893	2.65	0.214	2.25
Lower Kittanning coal	2.11	1.39	0.07	0.044	0.012	0.158	0.92	0.072	1.08
Pittsburgh coal	2.02	1.10	0.14	0.040	0.033	0.161	1.23	0.059	2.02
Pittsburgh coal	8.59	3.77	0.35	0.158	0.118	0.702	1.31	0.227	1.42
Pittsburgh coal	9.06	3.84	0.28	0.160	0.128	0.742	1.35	0.235	1.38
Pittsburgh coal	2.21	1.12	0.12	0.040	0.034	0.151	0.92	0.066	1.59
Pittsburgh coal	23.40	9.51	0.61	0.378	0.300	1.750	3.08	0.597	1.83
Jellico coal	2.34	1.56	0.17	0.057	0.023	0.164	0.36	0.081	1.65
Mingo coal	0.81	0.61	0.06	0.024	0.020	0.090	0.69	0.030	0.71
Nemo coal	1.90	1.39	0.13	0.057	0.014	0.188	0.34	0.076	2.28
Pewee coal	1.88	1.14	0.29	0.076	0.014	0.198	0.38	0.044	0.96
Richland coal	1.38	0.86	0.05	0.052	0.008	0.167	0.44	0.038	0.59
Rex coal	3.06	1.88	0.23	0.080	0.025	0.285	0.32	0.128	1.28
Walnut Mountain	2.45	1.51	0.18	0.065	0.019	0.229	0.26	0.104	0.95
	0.31	0.24	0.04	0.012	0.005	0.018	0.09	0.019	0.77
Mingo coal	1.10	0.75	0.08	0.043	0.012	0.160	1.65	0.031	2.58
Mingo coal	0.87	0.61	0.07	0.019	0.005	0.061	0.15	0.031	1.14
Sewickley coal	3.35	1.90	0.17	0.100	0.044	0.329	2.49	0.093	
No. 6 Block coal	2.86	1.61	0.03	0.026	0.012	0.097	0.14	0.127	

ɔry samples.

Coal	Si	Al	Ca	Mg	Na	K	Fe	Ti	S
	%	%	%	%	%	%	%	%	%
No. 6 Block coal	2.64	2.25	0.04	0.047	0.016	0.200	0.27	0.116	
No. 5 Block coal	1.77	0.98	0.04	0.016	0.013	0.055	0.12	0.079	
Little No. 5 Block coal	2.82	2.00	0.04	0.052	0.021	0.264	0.31	0.081	
Stockton coal	5.42	3.40	0.26	0.132	0.048	0.519	0.78	0.172	
Stockton coal	5.14	3.42	0.09	0.116	0.036	0.537	0.58	0.225	
Stockton coal	5.02	3.52	0.24	0.124	0.052	0.596	0.52	0.172	
Stockton coal	2.50	1.02	0.08	0.047	0.013	0.162	3.35	0.057	
Coalburg coal	7.13	4.01	0.12	0.149	0.047	0.627	1.46	0.226	
Coalburg coal	5.71	3.43	0.07	0.110	0.045	0.499	1.15	0.187	
Coalburg coal	2.74	1.81	0.08	0.060	0.020	0.209	0.24	0.106	
Coalburg coal	3.77	2.50	0.05	0.072	0.025	0.327	2.48	0.112	
Coalburg coal	7.81	3.98	0.07	0.174	0.043	0.842	0.84	0.203	
Winifrede coal	1.80	0.86	0.11	0.038	0.018	0.013	0.13	0.082	
Coalburg coal	7.42	4.86	0.04	0.160	0.060	0.782	0.59	0.262	
Stockton coal	1.30	1.11	0.06	0.028	0.016	0.082	0.13	0.037	
Stockton coal	2.88	1.82	0.04	0.022	0.021	0.079	0.15	0.151	
Stockton coal	2.41	1.79	0.03	0.028	0.021	0.129	0.12	0.137	
Williamson coal	3.13	1.57	0.04	0.027	0.026	0.133	0.77	0.137	
No. 5 Block coal	3.76	2.21	0.07	0.043	0.016	0.183	0.58	0.215	
Coalburg coal	1.81	1.28	0.07	0.044	0.029	0.200	0.20	0.044	
Coalburg coal	7.45	3.86	0.24	0.153	0.040	0.657	1.46	0.237	
Coalburg coal	11.00	5.29	0.13	0.283	0.076	1.270	1.29	0.282	
Coalburg coal	2.22	1.27	0.05	0.024	0.021	0.067	0.39	0.092	
Winifrede coal	3.14	1.96	0.06	0.037	0.020	0.141	0.20	0.124	
Winifrede coal	1.01	0.74	0.07	0.032	0.018	0.077	0.31	0.053	
Coalburg coal	1.44	1.09	0.05	0.030	0.015	0.098	0.26	0.041	
Coalburg coal	5.46	3.51	0.04	0.118	0.031	0.560	0.56	0.202	
No. 6 Block coal	5.80	4.55	0.07	0.134	0.047	0.767	0.83	0.237	

ɔry samples.

Coal	Si %	Al %	Ca %	Mg %	Na %	K %	Fe %	Ti %	S %
No. 6 Block coal	3.22	2.29	0.06	0.057	0.017	0.206	0.60	0.149	
Redstone coal	1.64	1.01	0.47	0.061	0.016	0.122	1.42	0.052	
Bakerstown coal	7.30	3.72	0.16	0.151	0.040	0.467	0.68	0.194	
Upper Freeport coal	3.77	2.19	0.25	0.095	0.029	0.288	1.42	0.095	
No. 5 Block coal	7.62	2.97	0.07	0.027	0.012	0.051	0.24	0.286	
No. 5 Block coal	6.24	4.05	0.04	0.099	0.034	0.595	0.32	0.224	
Stockton coal	4.02	1.91	0.06	0.039	0.017	0.152	0.29	0.157	
Winifrede coal	2.23	1.16	0.09	0.098	0.024	0.114	0.20	0.064	
Cedar Grove coal	2.31	1.18	0.08	0.044	0.023	0.141	1.04	0.065	
Powellton coal	5.14	3.20	0.03	0.192	0.064	0.815	0.98	0.120	
Coalburg coal	5.72	2.67	0.04	0.052	0.038	0.276	0.27	0.175	
Winifrede coal	4.39	2.01	0.07	0.045	0.019	0.182	0.15	0.133	
Waynesburg coal	6.09	3.34	0.09	0.123	0.046	0.512	0.96	0.156	
Waynesburg coal	4.18	2.09	0.05	0.072	0.031	0.357	2.11	0.110	
Sewickley coal	3.09	1.61	0.07	0.049	0.034	0.208	0.53	0.095	
Sewickley coal	3.11	1.62	0.12	0.065	0.051	0.222	1.92	0.080	
Sewickley coal	2.84	1.55	0.08	0.056	0.044	0.210	1.72	0.076	
Redstone coal	0.75	0.62	0.52	0.037	0.009	0.069	0.90	0.031	
Bakerstown coal	9.90	5.66	0.18	0.296	0.061	0.947	0.84	0.273	
Bakerstown coal	1.44	1.00	0.11	0.040	0.023	0.079	0.19	0.058	
Upper Freeport coal	3.54	2.27	0.13	0.092	0.027	0.344	2.10	0.119	
Upper Freeport coal	4.09	2.37	0.29	0.109	0.033	0.353	0.80	0.107	
Upper Freeport coal	2.41	1.79	0.23	0.046	0.026	0.151	3.18	0.053	
Cedar Grove coal	2.34	1.17	0.07	0.044	0.023	0.147	1.02	0.061	
Stockton coal	3.89	2.12	0.07	0.060	0.024	0.261	0.19	0.132	
No. 6 Block coal	0.79	0.66	0.05	0.013	0.009	0.017	0.08	0.035	
No. 5 Block coal	2.81	1.52	0.05	0.069	0.016	0.295	0.24	0.059	
Upper No. 5 Block coal	4.89	2.53	0.07	0.088	0.022	0.393	0.38	0.154	

ɔry samples.

Coal	Si %	Al %	Ca %	Mg %	Na %	K %	Fe %	Ti %	S %
Stockton coal	6.74	4.34	0.05	0.180	0.045	1.042	1.58	0.172	
Stockton coal	3.81	2.47	0.05	0.091	0.025	0.489	0.52	0.108	
Stockton coal	1.69	0.79	0.05	0.017	0.011	0.055	0.11	0.054	
Stockton coal	1.14	0.65	0.03	0.008	0.013	0.011	0.04	0.039	
Coalburg coal	6.28	3.51	0.05	0.162	0.031	0.860	0.88	0.184	
Coalburg coal	4.78	3.61	0.08	0.102	0.048	0.522	0.31	0.206	
Stockton coal	4.64	2.76	0.07	0.073	0.043	0.430	0.24	0.175	
Coalburg coal	6.73	3.70	0.05	0.124	0.046	0.601	0.42	0.192	
Coalburg coal	6.34	2.02	0.06	0.069	0.061	0.314	0.31	0.129	
Coalburg coal	1.54	1.35	0.06	0.038	0.118	0.152	0.67	0.058	
Coalburg coal	1.61	1.40	0.06	0.036	0.100	0.163	0.20	0.094	
Coalburg coal	2.54	1.41	0.05	0.042	0.032	0.205	0.48	0.056	
Coalburg coal	1.62	1.27	0.06	0.020	0.084	0.054	0.32	0.091	
Coalburg coal	2.49	2.04	0.06	0.047	0.020	0.277	0.40	0.094	
Coalburg coal	0.84	0.64	0.08	0.021	0.039	0.020	0.39	0.031	
Winifrede coal	0.82	0.59	0.05	0.022	0.012	0.055	0.07	0.034	
No. 5 Block coal	1.79	1.09	0.05	0.013	0.006	0.034	0.08	0.115	
Coalburg coal	6.88	3.86	0.06	0.179	0.035	0.940	0.96	0.198	
Stockton coal	2.81	1.76	0.07	0.045	0.017	0.166	0.25	0.133	
Coalburg coal	4.19	2.37	0.06	0.053	0.024	0.219	0.22	0.188	
No. 5 Block coal	2.48	1.45	0.05	0.036	0.014	0.151	0.14	0.147	
No. 6 Block coal	12.40	4.38	0.05	0.133	0.045	0.820	0.64	0.387	
Stockton coal	4.16	2.36	0.07	0.073	0.023	0.269	0.45	0.175	
Stockton coal	2.81	1.61	0.05	0.036	0.016	0.124	0.11	0.111	
No. 5 Block coal	2.82	1.70	0.08	0.059	0.022	0.229	0.34	0.122	
Coalburg coal	9.86	4.35	0.05	0.193	0.049	0.856	0.79	0.239	
Coalburg coal	4.65	2.71	0.07	0.104	0.037	0.385	0.39	0.144	
Coalburg coal	5.44	3.39	0.06	0.119	0.037	0.531	0.69	0.219	

ɔry samples.

Coal	Si	Al	Ca	Mg	Na	K	Fe	Ti	S
	%	%	%	%	%	%	%	%	%
Coalburg coal	3.38	1.80	0.04	0.068	0.046	0.187	0.34	0.152	
Coalburg coal	5.81	3.17	0.07	0.132	0.034	0.580	0.49	0.173	
Coalburg coal	3.12	1.37	0.05	0.049	0.017	0.176	0.21	0.134	
Coalburg coal	8.21	4.41	0.07	0.174	0.063	0.820	0.53	0.244	
Coalburg coal	4.54	2.20	0.05	0.085	0.037	0.386	0.31	0.134	
Stockton coal	1.06	0.75	0.05	0.020	0.012	0.056	0.07	0.038	
Stockton coal	5.91	3.61	0.05	0.183	0.057	0.909	0.85	0.134	
Stockton coal	4.32	2.78	0.04	0.110	0.043	0.558	0.36	0.163	
Upper No. 5 Block coal	2.69	0.70	0.08	0.043	0.015	0.031	0.07	0.089	
Stockton coal	3.24	2.19	0.05	0.095	0.029	0.434	0.29	0.102	
No. 5 Block coal	1.64	1.00	0.04	0.031	0.011	0.114	0.12	0.066	
Stockton coal	1.68	1.11	0.05	0.036	0.017	0.162	0.12	0.054	
Coalburg coal	8.21	4.40	0.07	0.232	0.262	1.280	0.61	0.212	
Coalburg coal	11.90	6.17	0.07	0.237	0.207	1.380	1.04	0.367	
Coalburg coal	2.57	1.63	0.04	0.054	0.041	0.259	0.22	0.093	
Coalburg coal	8.65	4.52	0.07	0.192	0.090	1.190	0.60	0.267	
Coalburg coal	6.65	4.53	0.21	0.158	0.094	0.698	0.68	0.268	
Coalburg coal	3.31	1.81	0.35	0.073	0.038	0.237	0.96	0.146	
Stockton coal	6.26	2.76	0.43	0.043	0.043	0.146	0.83	0.317	
Middle Kittanning coal	3.99	3.34	0.86	0.134	0.050	0.462	2.48	0.236	
Coalburg coal	4.51	2.21	0.04	0.085	0.033	0.415	0.32	0.131	
Stockton coal	4.66	3.01	0.04	0.119	0.037	0.628	0.38	0.184	
Cedar Grove coal	2.42	1.30	0.09	0.057	0.014	0.208	0.85	0.096	1.61
Dean (Fireclay) coal	2.64	1.90	0.14	0.084	0.024	0.247	0.60	0.105	0.98
Cedar Grove coal	1.27	0.75	0.19	0.041	0.029	0.046	1.04	0.035	1.69
Winifrede coal	1.13	0.90	0.08	0.042	0.014	0.144	0.30	0.040	0.89
Winifrede coal	0.74	0.54	0.10	0.028	0.012	0.047	0.17	0.022	0.77
Sewell coal	2.15	1.71	0.03	0.075	0.033	0.303	1.80	0.061	2.59

ɔry samples.

Coal	Si	Al	Ca	Mg	Na	K	Fe	Ti	S
	%	%	%	%	%	%	%	%	%
Coalburg coal	1.98	1.67	0.06	0.037	0.018	0.125	0.18	0.098	0.91
Sewell coal	6.28	3.93	0.16	0.252	0.087	0.933	1.17	0.176	0.99
No. 2 Gas coal	2.46	1.73	0.25	0.112	0.036	0.399	0.47	0.077	0.89
Upper Kittanning coal	3.45	2.20	0.09	0.069	0.059	0.367	3.88	0.139	5.31
Coalburg coal	3.82	2.25	0.06	0.041	0.015	0.128	0.21	0.134	0.84
Eagle coal	4.19	2.76	0.26	0.141	0.068	0.477	0.41	0.157	0.66
Welch coal	7.03	5.40	0.19	0.102	0.053	0.421	0.39	0.405	0.54
Peerless coal	2.37	1.35	0.11	0.058	0.029	0.262	1.62	0.111	2.64
No. 2 Gas coal	2.97	2.05	0.19	0.135	0.052	0.559	1.41	0.097	1.79
Middle Kittanning coal	5.24	4.86	0.76	0.113	0.057	0.412	0.51	0.203	0.78
Lower Kittanning coal	2.31	2.54	0.78	0.059	0.022	0.153	2.69	0.085	4.05
Lower Kittanning coal	4.98	3.86	0.40	0.057	0.031	0.278	2.76	0.201	4.18
Redstone coal	2.03	1.34	0.17	0.039	0.018	0.143	1.98	0.073	3.38
Middle Kittanning coal	5.96	4.00	0.05	0.158	0.033	0.819	0.56	0.246	0.89
Sewickley coal	3.45	2.10	0.11	0.063	0.081	0.277	2.03	0.119	3.36
Redstone coal	2.86	1.63	0.15	0.051	0.029	0.216	2.01	0.074	4.06
Pittsburgh coal	1.85	1.13	0.48	0.072	0.071	0.112	1.60	0.066	3.90
Pittsburgh coal	1.10	0.69	0.56	0.066	0.057	0.071	1.58	0.039	3.94
No. 5 Block coal	3.10	2.53	1.07	0.080	0.020	0.243	0.76	0.124	1.27
No. 5 Block coal	5.53	4.87	0.08	0.088	0.036	0.443	1.22	0.255	1.82
Stockton coal	6.46	3.67	0.07	0.132	0.040	0.633	0.39	0.221	0.73
Little Chilton coal	2.22	1.64	0.05	0.053	0.020	0.180	0.28	0.095	0.75
No. 2 Gas coal	2.63	1.45	0.05	0.040	0.025	0.173	0.41	0.112	1.00
Lower Powellton coal	1.38	0.79	0.06	0.021	0.023	0.067	0.33	0.073	0.66
Sewell coal	4.69	2.49	0.03	0.172	0.069	0.615	1.05	0.114	1.10
Powellton coal	1.18	0.96	0.06	0.036	0.023	0.087	0.18	0.065	0.59
Stockton coal	2.48	1.74	0.06	0.034	0.012	0.093	0.17	0.122	0.78
Pittsburgh coal	1.82	1.00	0.14	0.050	0.048	0.086	1.79	0.058	3.18

ory samples.

Coal	Si %	Al %	Ca %	Mg %	Na %	K %	Fe %	Ti %	S %
Stockton coal	6.87	3.75	0.09	0.154	0.053	0.639	1.26	0.181	1.47
Stockton coal	2.91	1.74	0.23	0.042	0.020	0.180	0.30	0.078	0.81
Little No. 5 Block coal	1.53	1.03	0.11	0.020	0.008	0.070	0.25	0.046	1.10
Lower Kittanning coal	3.43	2.56	0.11	0.044	0.014	0.160	3.48	0.099	5.01
Sewell coal	4.27	2.58	0.20	0.038	0.071	0.092	0.52	0.058	1.01
Sewell coal	12.80	4.54	0.31	0.149	0.083	0.695	0.58	0.211	0.37
Sewell coal	1.61	1.30	0.40	0.063	0.049	0.136	0.26	0.043	0.51
Middle Kittanning coal	4.73	2.92	0.18	0.036	0.023	0.120	2.74	0.230	4.12
Middle Kittanning coal	9.49	4.23	0.60	0.099	0.034	0.458	0.51	0.444	0.75
Upper Kittanning coal	2.16	0.99	0.17	0.072	0.012	0.208	6.68	0.051	8.21
Brush Creek coal	11.21	4.95	0.14	0.367	0.052	1.097	7.82	0.249	8.03
Lower Mercer coal	9.31	3.87	0.06	0.037	0.047	0.139	2.11	0.413	2.75
Upper Mercer coal	2.94	2.05	0.08	0.081	0.024	0.315	0.27	0.078	1.05
Quakertown coal	6.10	3.67	0.12	0.194	0.663	0.753	4.20	0.138	4.52
Quakertown coal	2.58	1.30	0.10	0.032	0.013	0.150	15.30	0.078	16.88
Sewickley coal	4.85	1.99	0.33	0.169	0.082	0.412	1.66	0.094	3.34
Waynesburg coal	3.46	1.85	0.08	0.075	0.042	0.283	3.26	0.093	4.84
Waynesburg coal	5.14	2.62	0.07	0.118	0.059	0.489	3.43	0.123	4.82
Sewickley coal	2.77	1.35	0.57	0.299	0.051	0.250	1.89	0.082	3.96
Pittsburgh coal	2.61	1.23	0.12	0.035	0.055	0.139	0.61	0.078	2.04
Pittsburgh coal	1.78	1.02	0.08	0.034	0.022	0.098	1.03	0.051	2.12
Pittsburgh coal	1.97	0.99	0.14	0.050	0.048	0.089	1.90	0.058	3.40
Lower Freeport coal	5.13	3.28	0.10	0.076	0.020	0.349	3.75	0.199	4.74
Upper Freeport coal	3.86	2.02	0.07	0.047	0.018	0.203	3.01	0.102	3.73
Lower Kittanning coal	8.80	5.09	0.07	0.094	0.038	0.501	2.07	0.408	2.70
Coalburg coal	0.93	0.85	0.06	0.025	0.013	0.019	0.14	0.015	0.73
Coalburg coal	4.78	2.34	0.05	0.060	0.024	0.197	0.20	0.151	0.63
Coalburg coal	3.82	2.27	0.06	0.081	0.031	0.287	0.22	0.107	0.89

ɔry samples.

Coal	Si	Al	Ca	Mg	Na	K	Fe	Ti	S
	%	%	%	%	%	%	%	%	%
Coalburg coal	2.73	0.77	0.05	0.021	0.013	0.020	0.22	0.062	0.88
Coalburg coal	1.01	0.67	0.06	0.022	0.008	0.051	0.11	0.021	0.98
Coalburg coal	9.58	4.63	0.07	0.230	0.041	1.089	0.50	0.227	0.52
Coalburg coal	4.22	2.09	0.05	0.085	0.015	0.360	0.28	0.095	0.90
Coalburg coal	13.56	6.30	0.08	0.333	0.068	1.438	0.83	0.326	0.34
Coalburg coal	1.22	0.89	0.04	0.021	0.012	0.057	0.12	0.025	0.66
Coalburg coal	3.13	1.92	0.05	0.035	0.012	0.153	0.12	0.116	0.58
No. 5 Block coal	2.25	1.36	0.05	0.044	0.016	0.186	0.33	0.058	0.71
Coalburg coal	2.28	1.25	0.07	0.043	0.013	0.135	0.11	0.081	0.72
Coalburg coal	2.31	1.47	0.04	0.036	0.014	0.149	0.10	0.056	0.66
Coalburg coal	1.34	0.80	0.07	0.035	0.010	0.078	0.17	0.027	0.61
Upper Freeport coal	9.19	4.38	0.13	0.117	0.039	0.488	3.87	0.357	4.16
Upper No. 5 Block coal	3.55	1.85	0.20	0.068	0.021	0.252	11.11	0.075	15.59
Clarion coal	6.50	3.44	0.25	0.076	0.038	0.358	2.36	0.264	3.14
Chilton coal	3.68	2.15	0.10	0.096	0.037	0.287	3.20	0.091	4.20
Coalburg coal	3.64	1.83	0.08	0.084	0.026	0.292	0.91	0.114	1.50
Coalburg coal	13.68	6.42	0.09	0.343	0.069	1.456	0.86	0.333	0.33

Cl %	P %	Ag ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Cd ppm	Co ppm	Cr ppm	Cs ppm	Cu ppm
<0.020	0.0273	<0.18	4.1	34	220	0.9	0.22	0.22	3.4	17.1	1.43	30.8
<0.020	0.0712	<0.24	2.8	46	408	0.9	0.42	1.47	4.3	21.6	1.89	73.7
<0.021	0.0062	<0.06	0.7	36	254	0.1	0.05	0.04	1.4	2.4	0.01	12.1
<0.021	0.0066	<0.05	0.7	36	266	0.1	0.04	0.03	1.0	2.1	0.01	9.2
<0.022	0.0276	<0.05	1.5	35	291	0.1	0.04	0.12	1.2	3.7	0.01	5.7
<0.021	0.0186	<0.05	0.9	39	274	0.1	0.02	0.03	0.9	2.7	0.01	5.6
<0.021	0.2480	<0.11	1.9	41	1070	0.2	0.21	0.16	2.0	7.6	0.17	17.6
<0.022	0.1840	<0.10	0.8	47	828	0.4	0.07	0.03	1.9	6.8	0.34	7.7
<0.019	0.1120	<0.45	2.2	45	815	1.8	0.42	0.34	6.3	39.8	5.11	34.6
<0.021	0.0674	<0.06	0.7	38	445	0.1	0.06	0.03	1.2	2.9	0.07	8.0
<0.022	0.0704	<0.06	0.6	40	462	0.1	0.05	0.04	1.0	2.4	0.07	7.4
<0.021	0.0208	<0.06	0.6	33	270	0.1	0.05	0.04	1.1	2.1	0.03	9.6
<0.021	0.0217	<0.06	0.7	37	309	0.1	0.06	0.05	1.2	2.4	0.03	10.5
0.045	0.0318	0.38	1.4	50	405	0.3	0.03	0.07	2.0	4.2	0.10	12.5
0.030	0.0342	0.31	1.3	51	405	0.3	0.03	0.09	2.2	5.0	0.13	12.6
0.026	0.0333	0.15	1.0	54	423	0.4	0.02	0.09	2.3	5.0	0.13	13.3
0.030	0.0382	<0.16	1.2	54	247	0.4	0.02	0.08	2.3	4.7	0.15	13.8
0.026	0.0454	<0.18	1.9	53	424	0.4	0.03	0.11	2.6	6.7	0.27	14.0
<0.018	0.0409	<0.18	2.2	50	420	0.4	0.03	0.11	2.7	6.9	0.26	14.2
0.026	0.0361	<0.17	1.5	50	392	0.3	0.03	0.09	2.4	6.2	0.18	13.1
0.022	0.0368	0.32	1.8	52	401	0.4	0.13	0.10	2.6	6.0	0.23	12.8
0.044	0.0246	0.23	0.9	55	413	0.3	0.07	0.06	2.1	5.0	0.17	12.0
<0.021	0.0208	0.20	0.8	50	390	0.3	0.05	0.05	2.1	4.5	0.09	12.0
0.024	0.0219	0.20	1.0	50	372	0.3	0.05	0.06	2.1	4.7	0.10	12.2

Cl	P	Ag	As	B	Ba	Be	Bi	Cd	Co	Cr	Cs	Cu
%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
0.024	0.0219	0.25	0.9	48	366	0.3	0.05	0.07	2.1	5.6	0.19	12.4
0.026	0.0156	<0.35	1.7	37	366	0.5	0.05	0.06	4.1	10.2	0.90	11.0
0.046	0.0242	<0.40	1.7	39	474	0.6	0.05	0.09	4.2	14.2	1.03	11.5
0.028	0.0255	<0.35	1.7	46	519	0.5	0.04	0.08	3.8	10.6	0.83	10.9
0.047	0.0231	<0.33	1.5	37	502	0.4	0.04	0.06	3.2	9.7	0.79	9.5
0.058	0.0703	0.26	0.9	41	599	0.5	0.03	0.07	3.1	3.9	0.10	7.9
0.059	0.0535	0.25	0.9	32	458	0.5	0.03	0.08	3.1	3.6	0.14	7.7
0.041	0.0603	0.24	1.0	37	542	0.5	0.04	0.09	3.2	4.0	0.22	8.6
0.036	0.0698	0.21	0.9	41	750	0.4	0.03	0.08	3.0	5.3	0.29	8.4
0.093	0.0247	<0.20	6.5	64	354	0.6	0.05	0.27	3.9	7.1	0.23	14.3
0.075	0.0285	0.34	7.9	56	354	0.6	0.18	0.30	4.5	10.3	0.40	15.7
0.074	0.0270	0.24	7.9	62	312	0.5	0.07	0.33	5.2	4.2	0.14	10.1
<0.02	0.0326	0.25	4.9	69	373	0.6	0.08	0.32	4.1	6.4	0.36	14.1
0.073	0.0306	0.22	1.4	53	376	0.3	0.04	0.07	2.3	3.8	0.08	11.0
0.033	0.0351	0.22	1.6	57	446	0.3	0.04	0.09	2.5	4.3	0.10	11.4
0.063	0.0320	0.17	1.3	46	342	0.2	0.03	0.06	1.9	3.7	0.07	9.2
0.053	0.0298	0.19	1.3	48	375	0.3	0.04	0.07	2.2	3.6	0.08	10.3
0.056	0.0197	0.19	1.5	47	365	0.3	0.04	0.07	2.2	4.0	0.14	12.0
0.096	0.0207	<0.36	1.6	36	454	0.5	0.06	0.08	3.9	9.8	0.86	11.1
0.020	0.0282	<0.18	0.2	48	375	0.3	0.06	0.10	2.4	6.2	0.21	21.3
<0.020	0.0251	<0.18	0.2	45	367	0.3	0.05	0.09	2.5	6.3	0.24	20.8
0.023	0.0309	<0.17	0.5	50	363	0.3	0.05	0.12	2.6	6.1	0.22	22.8
0.023	0.0299	<0.18	0.6	49	375	0.3	0.05	0.12	2.7	6.4	0.22	23.6
0.025	0.0288	<0.16	0.9	48	390	0.3	0.04	0.10	2.5	5.2	0.11	19.7
0.073	0.0305	<0.16	0.7	48	382	0.3	0.04	0.11	2.7	5.4	0.13	21.0
0.027	0.0278	<0.15	0.5	44	338	0.3	0.03	0.09	2.4	4.8	0.12	18.9
<0.020	0.0319	<0.16	0.5	53	373	0.3	0.04	0.11	2.5	5.2	0.11	21.0
0.020	0.0300	<0.17	0.6	52	391	0.3	0.11	0.11	2.6	5.5	0.15	24.9

Cl	P	Ag	As	B	Ba	Be	Bi	Cd	Co	Cr	Cs	Cu
%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
0.026	0.0297	<0.17	1.5	50	380	0.3	0.11	0.10	2.7	5.7	0.14	22.3
0.025	0.0304	<0.17	1.6	53	381	0.3	0.15	0.09	2.5	5.6	0.14	23.8
0.023	0.0292	<0.15	1.3	50	358	0.3	0.06	0.08	2.4	4.8	0.07	19.9
0.025	0.0298	<0.15	1.3	52	379	0.3	0.04	0.09	2.3	4.6	0.07	18.9
0.026	0.0301	<0.15	1.3	51	368	0.3	0.04	0.09	2.4	4.6	0.07	20.2
0.024	0.0294	0.17	1.7	50	353	0.3	0.06	0.09	2.6	4.9	0.08	20.4
0.024	0.0328	<0.16	1.4	50	376	0.3	0.04	0.07	2.5	5.0	0.11	20.6
0.029	0.0291	<0.16	1.5	50	346	0.3	0.04	0.09	2.6	5.0	0.10	20.2
0.029	0.0279	<0.16	1.6	50	354	0.3	0.04	0.09	2.8	5.1	0.09	19.7
0.024	0.0290	<0.16	1.5	49	375	0.4	0.04	0.10	2.7	5.3	0.11	20.6
0.021	0.0275	<0.15	1.1	45	374	0.2	0.04	0.06	2.2	4.8	0.13	18.3
0.040	0.0245	<0.14	0.8	43	369	0.2	0.03	0.05	2.0	4.4	0.12	16.3
<0.020	0.0271	<0.15	1.0	46	373	0.2	0.04	0.09	2.2	5.4	0.13	18.4
0.021	0.0300	<0.14	1.1	45	382	0.3	0.03	0.07	2.1	4.4	0.11	18.4
0.025	0.0297	<0.16	1.3	46	381	0.3	0.04	0.09	2.3	6.9	0.23	19.9
0.021	0.0290	<0.15	1.1	46	379	0.3	0.04	0.06	2.3	5.0	0.16	17.1
<0.020	0.0258	<0.15	1.1	44	373	0.2	0.04	0.07	2.3	5.2	0.16	19.2
<0.020	0.0285	<0.15	1.3	45	342	0.3	0.04	0.07	2.3	5.4	0.16	18.7
0.031	0.0385	<0.17	1.6	46	397	0.3	0.04	0.11	2.7	6.8	0.28	34.0
0.025	0.0414	<0.18	1.6	50	426	0.4	0.05	0.12	2.7	6.8	0.28	23.4
0.036	0.0407	<0.17	1.7	47	386	0.3	0.05	0.10	2.7	6.7	0.28	19.9
0.024	0.0297	<0.15	1.2	51	380	0.3	0.04	0.09	2.4	4.5	0.09	21.5
0.048	0.0258	<0.14	0.8	48	382	0.2	0.03	0.06	2.2	4.5	0.12	16.5
<0.020	0.0423	<0.17	1.7	50	345	0.3	0.03	0.12	2.6	5.9	0.20	14.7
0.023	0.0409	<0.17	1.6	52	371	0.3	0.03	0.10	2.6	6.3	0.21	14.6
<0.020	0.0404	<0.17	1.8	51	369	0.3	0.03	0.12	2.6	5.7	0.19	14.0
<0.020	0.0400	<0.17	1.7	50	358	0.3	0.03	0.10	2.4	5.7	0.19	13.9
<0.020	0.0407	<0.17	1.6	47	379	0.3	0.03	0.10	2.5	6.0	0.24	14.4

Cl	P	Ag	As	B	Ba	Be	Bi	Cd	Co	Cr	Cs	Cu
%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
<0.020	0.0402	<0.17	1.9	48	400	0.3	0.03	0.12	2.6	6.0	0.21	15.0
0.045	0.0381	<0.16	1.9	46	394	0.3	0.03	0.11	2.5	5.9	0.21	14.8
<0.019	0.0412	<0.16	1.7	49	398	0.3	0.04	0.10	2.4	5.6	0.20	15.1
0.025	0.0384	<0.16	1.9	48	383	0.3	0.03	0.09	2.4	5.8	0.20	16.5
<0.020	0.0356	<0.15	1.5	52	396	0.3	0.02	0.10	2.3	4.7	0.10	14.5
<0.020	0.0356	<0.15	1.4	51	376	0.3	0.03	0.09	2.3	4.5	0.11	14.4
<0.021	0.0368	<0.15	1.4	56	388	0.3	0.02	0.08	2.2	4.4	0.10	13.4
<0.020	0.0320	<0.15	1.5	52	357	0.3	0.02	0.09	2.2	4.4	0.12	13.9
0.000	0.0403	<0.16	1.7	52	374	0.3	0.03	0.10	2.3	4.9	0.13	14.7
<0.017	0.0206	<0.17	1.7	35	419	0.2	0.01	0.04	2.4	4.6	0.21	10.3
0.021	0.0188	<0.15	0.9	35	287	0.2	0.01	0.03	2.2	3.6	0.12	9.3
0.022	0.0287	<0.16	0.9	34	279	0.2	0.08	0.03	2.2	4.0	0.15	10.1
<0.017	0.0257	<0.16	0.7	35	307	0.2	0.05	0.03	2.2	3.9	0.13	9.8
<0.017	0.0311	<0.16	0.7	32	446	0.2	0.04	0.03	2.2	3.9	0.13	9.4
0.028	0.0313	<0.17	0.7	34	635	0.2	0.04	0.04	2.5	4.4	0.17	11.0
<0.017	0.0856	0.17	1.0	39	567	0.4	0.06	0.14	2.8	5.1	0.24	10.3
0.018	0.0867	0.16	0.9	39	571	0.4	0.05	0.14	2.8	4.9	0.19	10.6
0.049	0.0788	0.18	0.8	39	538	0.4	0.05	0.10	2.6	4.1	0.16	9.1
<0.017	0.0746	0.16	0.8	38	494	0.4	0.05	0.12	2.5	4.2	0.16	8.8
0.020	0.0848	0.18	0.9	40	560	0.4	0.04	0.10	2.8	4.5	0.16	9.8
<0.017	0.0861	0.17	0.9	40	592	0.4	0.05	0.11	2.7	5.0	0.22	10.1
<0.017	0.0263	<0.22	5.0	53	352	0.4	0.06	0.27	3.8	9.1	0.46	14.6
0.018	0.0263	<0.21	5.8	56	378	0.4	0.06	0.23	3.9	8.1	0.38	15.3
<0.017	0.0296	<0.15	1.4	47	354	0.2	0.03	0.08	2.1	4.2	0.09	11.7
<0.017	0.0330	<0.14	1.3	49	369	0.2	0.04	0.07	2.2	4.2	0.07	12.1
0.036	0.0369	<0.15	1.4	53	398	0.3	0.04	0.09	2.3	4.6	0.10	13.6
0.023	0.0378	0.17	1.7	48	364	0.3	0.06	0.11	2.6	5.9	0.22	15.2

Cl %	P %	Ag ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Cd ppm	Co ppm	Cr ppm	Cs ppm	Cu ppm
<0.017	0.0019	<0.22	1.5	220	384	0.8	0.08	0.06	1.5	6.2	0.23	8.1
<0.017	0.0022	<0.20	1.1	252	316	0.6	0.07	0.05	1.3	4.6	0.08	7.9
<0.017	0.0017	<0.13	0.7	287	324	0.1	0.06	0.04	0.9	3.4	0.03	7.0
<0.016	0.0064	<0.24	0.9	210	523	0.3	0.12	0.08	1.8	8.0	0.10	16.1
<0.016	0.0212	<0.21	2.9	157	476	0.3	0.11	0.09	1.8	7.1	0.33	12.4
<0.016	0.0004	<0.07	0.5	88	75	0.1	0.02	0.03	0.4	1.6	0.02	2.0
<0.016	0.0026	<0.01	0.5	88	96	0.2	0.03	0.03	0.7	1.7	0.01	2.0
<0.016	0.0042	<0.08	0.5	95	73	0.2	0.03	0.02	0.5	1.7	0.01	2.0
<0.016	0.0008	<0.07	0.4	92	92	0.1	0.03	0.04	0.5	1.8	0.03	2.1
<0.017	0.0027	<0.11	0.7	78	226	0.7	0.04	0.23	3.9	3.2	0.14	3.1
<0.016	0.0025	<0.15	0.9	94	206	0.9	0.04	0.21	3.1	5.1	0.39	3.1
<0.016	0.0009	<0.20	1.0	30	156	2.0	0.11	0.03	5.2	3.3	0.10	4.9
<0.016	0.0051	<0.30	6.9	34	200	1.0	0.11	0.06	4.6	7.0	0.29	4.9
<0.016	0.0027	<0.61	1.3	<6	245	<0.3	0.22	0.03	5.9	10.7	1.79	11.9
<0.016	0.0008	<0.19	1.4	32	163	0.8	0.10	0.04	4.0	3.3	0.14	5.1
<0.016	0.0012	<0.28	8.7	28	160	1.0	0.09	0.06	4.5	6.2	0.19	4.1
<0.016	0.0032	<0.74	4.0	38	137	1.4	0.52	0.22	6.4	19.5	4.31	8.3
<0.016	0.0036	<0.83	3.2	21	769	2.0	0.41	0.05	1.5	7.3	0.79	2.9
<0.016	0.0012	<0.27	0.6	23	15	0.5	0.69	0.01	2.1	4.8	0.13	8.9
<0.016	0.0022	<0.15	1.7	99	26	0.4	0.13	0.07	2.6	3.5	0.19	5.2
<0.016	0.1020	<0.10	0.3	123	46	0.2	0.06	0.05	1.2	1.7	0.02	2.4
<0.016	0.0051	<0.14	6.9	103	22	0.9	0.13	0.13	1.5	3.4	0.17	4.3
<0.016	0.0517	<0.19	1.0	160	261	0.2	0.16	0.11	1.3	2.5	0.20	3.7
<0.016	0.0689	<0.17	0.7	181	401	0.2	0.17	0.12	0.9	2.0	0.18	3.9
<0.017	0.0927	<0.19	0.7	241	327	0.3	0.14	0.10	1.5	2.4	0.19	3.8

Cl	P	Ag	As	B	Ba	Be	Bi	Cd	Co	Cr	Cs	Cu
%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
<0.017	0.0614	<0.31	1.3	231	300	<0.2	0.13	0.17	1.9	5.2	0.75	3.6
<0.017	0.1800	<0.30	1.7	190	400	0.8	0.18	0.18	2.6	5.8	0.82	3.9
<0.016	0.0223	<0.18	7.5	199	192	1.2	0.23	0.17	1.7	5.1	0.85	7.5
<0.017	0.0393	<0.11	0.7	203	146	<0.1	0.10	0.01	0.8	1.8	0.02	1.9
<0.018	0.1100	<0.20	1.9	171	618	1.1	0.08	0.05	3.7	5.1	0.52	5.4
<0.017	0.1080	<0.36	1.2	115	560	0.5	0.27	0.12	1.9	7.7	0.48	3.9
<0.017	0.0854	<0.24	1.0	124	471	0.5	0.21	0.07	1.5	5.0	0.22	3.6
0.037	0.0289	<0.25	0.5	130	106	0.5	0.21	0.06	2.2	6.2	0.45	8.4
<0.016	0.0632	<0.08	0.3	201	146	0.1	0.10	0.02	1.1	1.8	0.02	3.7
0.019	0.0244	<0.13	0.7	293	312	0.5	0.20	0.04	2.5	3.4	0.08	8.2
<0.022	0.0367	<0.18	2.5	176	435	1.1	0.10	0.05	3.7	5.2	0.27	7.8
<0.017	0.0225	<0.16	1.7	119	317	0.4	0.09	0.04	1.4	2.9	0.17	3.3
<0.018	0.0246	<0.16	1.1	143	418	0.5	0.08	0.05	1.6	4.4	0.15	5.4
<0.017	0.1100	<0.20	1.0	83	489	1.2	0.09	0.06	2.0	4.3	0.60	4.2
<0.017	0.0373	<0.15	0.5	73	363	0.6	0.09	0.03	1.1	2.9	0.19	3.1
<0.016	0.0132	<0.17	0.5	217	330	0.2	0.12	0.08	1.3	1.9	0.17	4.3
<0.016	0.0114	<0.15	0.4	75	26	0.2	0.10	0.06	1.2	1.8	0.15	4.2
<0.016	0.0019	<0.44	2.8	44	129	1.4	0.31	0.17	7.0	11.3	0.74	14.0
<0.016	0.0204	<0.16	1.0	153	165	0.6	0.13	0.02	1.2	2.6	0.26	2.1
0.019	0.0551	<0.15	0.7	247	257	0.3	0.12	0.07	2.0	4.4	0.43	6.4
<0.016	0.0240	<0.21	0.6	204	253	0.3	0.17	0.12	1.9	2.9	0.17	7.3
<0.016	0.0445	<0.23	4.2	115	138	0.2	0.18	0.09	1.7	2.9	0.31	5.9
<0.017	0.0542	<0.38	0.6	193	354	1.1	0.32	0.14	3.2	8.3	0.48	12.4
<0.017	0.0498	<0.18	0.5	169	290	<0.1	0.05	0.06	0.9	3.1	0.40	2.0
<0.016	0.0444	<0.22	1.4	134	268	0.4	0.13	0.12	1.5	3.9	0.46	4.2
0.028	0.0145	<0.12	1.1	109	129	0.3	0.05	0.04	1.0	1.7	0.20	3.5
0.033	0.0144	<0.11	1.1	119	139	0.3	0.05	0.06	1.0	1.4	0.18	3.6
0.021	0.0263	<0.29	0.6	41	207	0.5	0.03	0.05	1.6	6.6	0.49	3.4

Cl	P	Ag	As	B	Ba	Be	Bi	Cd	Co	Cr	Cs	Cu
%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
0.016	0.0121	<0.25	0.4	31	156	0.5	0.03	0.04	1.3	5.0	0.61	2.6
0.017	0.0271	<0.15	0.4	50	222	0.6	0.05	0.02	1.3	3.1	0.15	3.2
0.019	0.0184	<0.04	0.1	19	127	0.1	0.01	0.00	0.2	0.4	0.01	0.7
0.035	0.0123	<0.06	0.2	30	150	0.2	0.03	0.02	0.5	1.1	0.02	2.1
0.051	0.0111	<0.05	0.3	32	158	0.2	0.03	0.01	0.5	1.5	0.05	1.9
0.026	0.0227	<0.09	0.4	56	264	0.2	0.03	0.03	0.9	2.0	0.14	2.7
0.022	0.0017	<0.04	0.2	21	107	0.2	0.01	0.01	0.5	1.0	0.09	1.1
0.016	0.0288	<0.06	0.3	50	211	0.2	0.03	0.01	0.6	1.2	0.03	2.0
0.020	0.0193	<0.05	0.1	48	199	0.3	0.03	0.01	0.6	0.8	0.02	2.1
0.027	0.0108	<0.07	0.4	80	365	0.5	0.01	0.01	0.6	1.4	0.11	1.8
0.016	0.0255	<0.08	0.4	83	228	0.2	0.03	0.02	0.7	1.5	0.07	2.6
0.030	0.0643	<0.15	1.1	6	145	0.7	0.11	0.02	2.6	4.1	0.41	6.0
0.021	0.0732	<0.16	0.5	7	166	0.6	0.09	0.08	2.1	6.6	0.38	14.3
0.029	0.0136	<0.09	1.2	103	127	0.3	0.06	0.05	0.9	1.3	0.18	3.1
0.313	0.0136	<0.08	25.9	72	31	0.9	0.03	0.05	3.5	9.7	0.25	6.8
0.051	0.0099	<0.19	42.5	4	29	0.2	0.03	0.04	6.1	10.5	0.38	3.1
0.026	0.0099	<0.22	28.8	14	35	0.3	0.05	0.05	3.8	10.1	0.34	6.0
0.356	0.0165	<0.12	2.2	45	10	3.2	0.03	0.09	1.3	4.4	0.29	10.6
0.058	0.0034	<0.16	1.6	36	34	2.4	0.04	0.01	9.9	8.3	0.69	9.9
	0.0078	0.45	133.0	73	50	3.1	<0.3	<0.12	9.8	14.8	1.63	23.7

Cl	P	Ag	As	B	Ba	Be	Bi	Cd	Co	Cr	Cs	Cu
%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
	0.0161	0.34	5.8	93	48	3.1	<0.23	1.68	9.6	19.0	1.90	23.5
	0.0684	0.86	75.4	73	49	1.8	<0.41	0.92	19.8	30.6	1.39	36.7
0.026	0.0159	0.09	29.0	107	42	2.9	0.06	0.57	7.0	10.2	0.81	9.0
0.025	0.0111	0.15	37.1	111	37	2.7	0.09	0.02	7.5	10.1	0.91	11.7
0.023	0.0218	0.12	32.9	120	24	2.8	0.05	4.71	6.3	9.5	0.80	7.9
0.131	0.0229	0.14	6.7	42	58	2.0	0.07	1.63	8.2	28.3	1.33	5.4
0.103	0.0213	0.14	5.7	40	70	2.2	0.09	5.54	7.5	25.1	1.47	7.8
0.199	0.0049	<0.13	6.6	34	263	1.5	0.08	8.52	9.2	16.4	1.35	8.0
0.067	0.0027	<0.11	7.3	120	39	1.0	0.07	0.25	6.1	10.5	0.94	4.3
0.072	0.0184	0.35	41.0	108	39	2.6	<0.24	0.35	4.7	17.6	1.29	8.3
0.068	0.0665	1.01	155.0	87	91	2.6	<0.47	2.58	18.5	44.5	2.34	42.2
0.085	0.0063	<0.21	4.2	114	37	1.7	<0.21	0.21	4.2	17.6	1.24	8.0
0.094	0.0079	<0.33	24.6	69	26	1.6	<0.33	0.33	4.6	15.9	0.95	3.3
0.098	0.0084	<0.32	20.8	123	50	2.7	<0.32	0.16	6.4	17.6	2.08	11.2
0.151	0.0599	0.37	11.2	101	125	2.9	<0.25	0.37	11.9	20.0	2.62	32.4
0.078	0.0235	0.73	36.7	100	100	3.2	<0.49	21.30	14.2	31.8	1.69	36.7
0.137	0.0167	<0.25	18.6	88	19	3.1	<0.25	0.12	2.7	12.2	0.74	6.1
0.101	0.0096	<0.32	3.1	75	24	1.6	<0.32	2.04	3.0	15.7	0.90	6.6
0.083	0.0121	<0.43	10.5	94	53	5.6	<0.43	<0.18	14.5	21.3	2.05	19.0
0.093	0.0047	<0.19	36.2	46	7	4.8	<0.19	2.72	7.3	8.1	0.04	7.1
0.128	0.0083	0.44	46.8	70	47	5.1	<0.3	<0.12	16.1	21.9	2.34	26.3
0.048	0.0080	<0.23	14.9	138	40	2.9	<0.23	0.23	5.3	14.9	1.61	11.5
0.071	0.0059	<0.20	5.1	90	26	2.0	<0.2	0.10	4.5	13.4	1.15	7.3
0.092	0.0154	<0.42	35.3	64	50	1.7	<0.42	0.83	4.4	24.9	1.20	4.2
0.124	0.0055	<0.37	14.3	83	44	2.2	<0.37	0.18	5.4	18.1	2.36	8.9
0.126	0.0169	<0.30	59.5	86	46	6.6	<0.3	0.30	25.3	19.3	1.41	10.7
0.163	0.0089	0.34	38.3	80	37	6.8	<0.23	0.23	13.5	22.5	1.47	18.0
0.257	0.0192	0.15	4.5	61	35	2.5	<0.15	0.22	3.1	11.0	1.25	5.7

Cl	P	Ag	As	B	Ba	Be	Bi	Cd	Co	Cr	Cs	Cu
%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
0.178	0.0059	<0.27	4.0	59	28	1.9	<0.27	0.13	3.1	14.7	1.02	5.4
0.136	0.0151	0.55	25.5	64	51	3.5	<0.37	1.73	11.8	23.6	1.13	25.5
0.033	0.0033	<0.05	1.2	170	8	2.7	0.02	0.01	7.1	4.1	0.07	3.3
0.033	0.1413	<0.14	1.5	92	38	2.2	0.04	1.53	6.7	6.2	0.52	13.4
0.026	0.0737	<0.16	1.7	105	109	3.8	0.07	0.09	13.0	16.1	0.39	24.5
0.034	0.0017	0.16	23.3	130	14	3.5	0.02	0.03	19.7	11.2	0.41	13.0
0.031	0.0045	0.23	14.2	97	28	2.8	0.04	0.02	19.1	9.7	0.75	17.7
0.043	0.0156	0.10	8.0	87	17	3.0	0.03	0.01	13.3	5.8	0.08	15.3
0.016	0.0475	0.23	21.7	104	62	3.4	0.05	0.04	15.0	18.5	0.21	25.3
0.050	0.0017	0.11	3.0	146	14	3.6	0.03	0.09	12.6	7.3	0.34	6.2
0.029	0.0028	<0.16	1.4	82	29	2.8	0.04	0.03	12.1	11.8	1.02	18.6
0.029	0.0013	<0.11	1.2	94	10	2.3	0.03	2.00	9.4	4.6	0.22	14.5
0.020	0.0234	<0.10	1.8	79	32	3.8	0.05	0.10	17.0	14.4	0.11	20.9
0.026	0.0030	<0.13	19.4	115	17	2.7	0.03	0.03	10.7	8.3	0.39	7.4
0.016	0.0444	0.40	16.3	105	132	3.8	0.22	0.03	8.8	39.4	1.79	51.0
0.028	0.1325	<0.31	35.7	109	63	3.2	0.18	2.73	25.4	31.7	1.05	24.3
0.049	0.0063	<0.19	12.5	226	13	2.1	0.08	0.03	3.5	5.2	0.25	3.3
0.036	0.0065	<0.17	10.1	219	11	2.1	0.04	0.03	3.4	5.6	0.26	2.9
0.028	0.0085	<0.15	65.8	199	9	3.0	0.03	0.05	5.4	3.0	0.03	6.0
0.035	0.0072	<0.08	21.8	206	8	3.2	0.04	0.03	4.8	3.0	0.02	4.8
0.024	0.0343	<0.22	29.0	186	58	3.6	0.07	0.06	11.4	14.0	1.00	10.9
0.038	0.0325	<0.21	25.8	215	55	3.8	0.06	0.07	11.8	15.8	1.16	10.3
0.046	0.0487	<0.14	68.9	277	47	3.3	0.09	0.16	14.5	10.9	0.18	25.5
0.051	0.0556	<0.09	25.1	298	54	3.5	0.06	0.10	13.2	10.6	0.15	19.1
0.026	0.0313	<0.10	73.9	313	6	2.8	0.02	0.07	6.4	3.9	0.09	6.1
0.032	0.0338	<0.06	37.3	330	5	2.9	0.02	0.07	5.7	4.0	0.09	4.3
0.031	0.0121	<0.10	54.5	269	12	3.1	0.03	0.12	5.4	5.7	0.27	7.8
0.045	0.0127	<0.07	31.7	260	14	3.3	0.03	0.08	4.9	5.8	0.30	7.1

Cl	P	Ag	As	B	Ba	Be	Bi	Cd	Co	Cr	Cs	Cu
%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
0.035	0.0014	<0.10	6.9	275	19	3.8	0.02	0.80	4.7	5.5	0.57	4.0
0.039	0.0004	<0.08	7.7	338	17	4.2	0.02	0.27	5.0	5.3	0.63	3.8
0.049	0.0010	<0.24	4.4	213	48	3.5	0.06	0.04	5.7	14.6	1.82	5.3
0.036	<0.0020	<0.23	4.1	238	48	3.6	0.06	0.05	5.6	15.7	1.96	4.7
0.041	0.0012	<0.27	4.2	241	55	3.3	0.06	0.04	6.5	16.6	1.94	6.1
0.060	<0.0020	<0.27	3.3	208	55	3.3	0.04	0.03	6.2	16.1	1.72	5.8
0.033	0.0022	<0.18	3.3	254	34	3.4	0.10	0.29	7.3	12.2	1.22	16.0
0.050	0.0023	<0.15	3.2	226	31	3.1	0.06	0.08	6.3	10.6	1.30	15.4
0.024	0.0185	<0.08	6.9	90	19	2.9	0.03	0.01	12.1	5.3	0.08	13.4
0.047	0.0070	<0.17	9.7	217	11	2.2	0.03	0.03	3.6	5.6	0.28	2.9
0.044	0.0139	<0.07	33.4	265	14	3.2	0.03	0.07	4.9	5.6	0.30	7.0
0.042	0.0014	<0.12	5.0	236	25	4.7	0.03	0.05	6.6	7.7	0.67	4.9
0.036	0.0013	<0.10	3.7	259	24	4.8	0.03	0.06	6.8	7.7	0.75	4.5
0.029	0.0029	<0.27	21.7	205	57	4.0	0.05	0.30	11.8	18.3	1.88	6.2
0.032	0.0021	<0.25	5.4	200	57	4.2	0.05	0.52	9.7	18.6	1.72	7.0
0.041	0.0028	<0.19	5.5	202	40	4.0	0.04	0.18	12.9	12.9	1.28	11.0
0.062	0.0026	<0.17	4.1	201	35	4.3	0.04	0.08	13.9	13.1	1.24	11.0
0.048	0.0047	<0.27	86.2	208	40	2.8	0.03	2.07	15.9	10.0	0.61	13.1
0.051	0.0029	<0.15	60.0	230	15	2.6	0.02	0.26	11.0	5.7	0.26	6.2
0.046	0.0023	<0.16	29.6	180	18	2.7	0.07	0.15	6.6	8.8	0.51	11.7
0.059	0.0017	<0.14	24.1	177	16	2.8	0.04	0.10	6.4	8.9	0.41	10.9
0.044	0.0075	<0.35	19.2	161	66	2.3	0.07	4.73	13.9	18.9	1.53	21.1
0.047	0.0057	<0.30	16.6	169	62	2.5	0.06	0.26	14.0	16.8	1.25	19.7
0.064	0.0102	<0.43	11.3	127	103	3.8	0.09	1.36	15.6	37.4	2.08	11.3
0.103	0.0022	0.28	11.8	134	45	3.3	0.05	0.41	13.0	30.4	1.23	7.9
0.071	0.0044	<0.26	1.7	129	60	3.2	0.06	2.46	8.1	20.5	1.66	8.0
0.082	0.0037	<0.25	1.1	141	62	3.6	0.07	0.07	8.6	20.5	2.33	7.5
0.085	0.0015	<0.14	<0.014	141	31	2.6	0.05	3.01	7.5	8.1	0.87	11.0

Cl	P	Ag	As	B	Ba	Be	Bi	Cd	Co	Cr	Cs	Cu
%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
0.084	0.0018	<0.12	<0.012	148	28	2.5	0.06	1.96	7.4	7.9	0.85	10.2
0.080	0.0047	<0.16	<0.016	158	35	3.0	0.04	0.04	5.6	10.6	0.99	4.7
0.085	0.0036	<0.14	<0.014	143	34	2.9	0.03	0.03	5.3	10.7	0.90	4.8
0.058	0.0209	<0.69	0.4	154	164	3.6	0.15	0.12	11.0	40.0	4.17	14.1
0.105	0.0040	<0.21	1.7	121	50	3.5	0.05	0.10	7.5	15.2	1.68	7.6
0.031	0.0058	<0.06	7.1	130	11	3.2	0.03	0.10	7.2	4.3	0.06	7.1
0.030	0.0045	<0.04	4.3	137	8	3.0	0.03	0.07	6.2	4.1	0.02	5.6
0.023	0.0011	<0.06	6.7	151	4	3.6	0.03	0.02	5.8	3.8	0.03	7.7
0.037	0.0008	<0.03	3.7	140	3	3.1	0.02	0.02	4.8	2.9	0.02	6.1
0.055	0.0191	<0.15	6.0	167	60	3.1	0.18	0.08	5.2	9.5	0.61	24.1
0.022	0.0158	<0.11	5.7	119	50	3.6	0.14	0.08	5.3	9.3	0.56	26.7
0.052	0.0039	<0.20	149.0	74	14	2.3	0.06	0.07	5.6	7.1	0.24	15.4
0.032	0.0030	<0.16	89.6	64	12	2.3	0.05	0.03	4.3	6.3	0.17	10.3
0.029	0.0016	<0.08	8.9	83	3	2.3	0.03	0.09	4.6	2.9	0.01	6.0
0.060	0.0012	<0.07	7.4	85	3	2.7	0.04	0.06	5.1	3.2	0.01	5.5
0.019	0.0092	<0.13	5.7	83	15	4.6	0.10	0.27	10.9	13.9	0.10	31.6
0.025	0.0092	<0.12	4.3	91	16	4.9	0.09	0.05	11.1	15.2	0.09	29.9
0.023	0.0180	<0.21	6.4	114	43	3.9	0.11	0.11	17.0	36.9	0.64	37.5
0.025	0.0136	<0.21	5.1	110	40	3.7	0.10	0.10	15.6	31.7	0.66	36.9
0.023	0.0027	<0.16	82.0	75	12	2.3	0.05	0.03	4.3	5.7	0.14	11.0
0.035	0.0029	<0.27	30.6	191	56	3.5	0.05	0.21	11.5	15.0	1.55	6.0
0.060	0.0021	<0.14	26.9	215	20	2.7	0.02	0.11	6.2	8.5	0.46	11.3
0.040	0.0021	<0.10	1.9	111	25	3.0	0.03	0.10	12.9	8.4	0.64	13.7
0.054	0.0018	<0.08	2.1	123	23	3.0	0.03	0.41	12.7	7.3	0.61	11.1
0.033	0.0023	<0.08	2.1	93	13	3.6	0.04	0.02	16.0	7.0	0.17	23.8
0.072	0.0023	<0.07	1.5	110	11	2.9	0.02	0.01	12.1	5.5	0.14	20.1
0.048	0.0307	0.12	7.0	100	45	4.3	0.05	0.02	21.8	21.0	0.10	24.6
0.067	0.0293	0.12	5.3	95	45	3.9	0.04	0.01	16.3	13.4	0.11	18.5

Cl	P	Ag	As	B	Ba	Be	Bi	Cd	Co	Cr	Cs	Cu
%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
0.023	0.0026	0.16	19.1	165	18	2.6	0.02	0.10	13.2	7.3	0.33	9.3
0.051	0.0017	0.16	15.5	173	14	2.6	0.02	0.07	13.4	6.6	0.28	6.0
0.016	0.0049	0.19	5.6	87	28	3.1	0.08	0.01	7.1	15.8	0.49	16.7
0.043	0.0055	<0.20	2.4	90	30	3.2	0.09	0.01	6.7	17.6	0.49	14.5
0.034	0.0045	<0.11	7.1	85	21	3.0	0.03	1.22	12.6	9.5	0.38	17.1
0.038	0.0040	<0.09	4.1	103	20	3.4	0.07	0.55	9.4	9.9	0.37	13.9
0.038	0.0106	<0.22	40.2	144	35	3.9	0.08	0.31	24.8	20.6	0.49	45.3
0.045	0.0119	<0.13	15.8	115	36	3.8	0.03	0.16	16.8	18.5	0.49	34.9
0.027	0.0111	<0.34	12.3	146	55	1.4	0.06	0.90	5.1	27.4	1.29	16.7
0.024	0.0121	<0.30	11.4	147	47	1.3	0.06	1.12	4.7	20.1	1.06	15.0
0.025	0.0107	<0.28	10.4	142	43	1.3	0.05	1.31	4.4	18.1	0.96	13.4
0.042	0.0102	<0.30	8.3	137	47	1.2	0.05	1.06	4.4	20.7	1.07	16.7
0.039	0.0110	<0.32	8.9	136	51	1.3	0.05	0.79	4.8	22.5	1.14	16.1
0.103	0.0045	<0.21	2.2	121	48	2.7	0.08	0.62	8.5	17.7	1.40	25.7
0.107	0.0056	<0.22	2.0	117	53	2.5	0.04	0.44	10.1	19.6	1.34	14.8
0.121	0.0060	<0.22	1.7	121	52	2.9	0.05	0.63	8.9	15.6	1.50	12.1
0.102	0.0036	<0.28	9.6	165	40	1.2	0.03	0.16	3.4	9.1	0.96	5.4
0.037	0.0029	<0.19	6.6	169	32	1.3	0.05	0.10	3.0	9.2	1.19	6.1
0.031	0.0030	<0.28	2.0	142	47	1.2	0.07	0.12	3.5	15.6	1.81	13.0
0.029	0.0018	<0.21	2.2	143	34	1.1	0.09	0.09	3.3	13.9	1.31	12.9
0.054	0.0042	<0.25	15.7	128	21	1.0	0.15	0.13	3.4	9.8	0.53	15.1
0.033	0.0013	<0.13	2.4	134	17	1.1	0.05	0.13	2.5	10.4	0.49	13.1
0.047	0.0056	<0.33	17.2	161	36	0.9	0.08	1.21	6.1	14.2	0.87	19.5
0.040	0.0024	<0.16	3.2	169	31	1.0	0.06	0.55	5.0	14.6	0.72	16.3
0.042	0.0053	<0.31	5.9	156	60	1.8	0.08	0.28	6.2	20.7	1.54	14.6
0.050	0.0026	<0.25	4.8	143	48	1.7	0.07	0.20	5.4	16.6	1.23	13.1
0.036	0.0025	<0.08	2.1	91	12	3.7	0.04	0.02	16.5	7.2	0.19	23.8
0.036	0.0032	<0.25	14.3	128	20	0.9	0.06	0.15	3.3	9.7	0.52	14.0

Cl	P	Ag	As	B	Ba	Be	Bi	Cd	Co	Cr	Cs	Cu
%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
0.021	0.0407	<1.60	16.6	607	397	16.1	0.77	3.50	46.7	112.0	9.42	70.4
0.022	0.0428	<1.40	10.8	553	344	12.2	0.38	3.22	37.2	96.6	8.40	62.9
0.022	0.0404	<1.60	13.4	570	355	14.8	0.39	5.63	45.5	106.0	9.40	77.1
0.021	0.0430	<1.70	17.7	668	446	19.8	0.67	4.18	58.7	119.0	11.60	77.9
<0.016	0.0387	<1.50	12.9	511	399	18.2	0.44	3.84	50.8	115.0	10.10	68.0
0.028	0.0424	<1.50	14.1	572	390	18.8	0.46	3.14	52.5	119.0	10.30	65.2
0.054	0.0454	<1.40	6.1	411	297	9.1	0.14	6.77	28.6	73.5	6.70	52.2
0.027	0.0383	<1.50	12.2	468	366	16.3	0.35	4.10	46.7	108.0	9.73	69.5
0.029	0.0558	<2.00	60.6	536	469	20.6	0.49	5.02	68.5	155.0	11.90	89.1
<0.016	0.0755	<2.00	79.6	1120	342	8.9	0.36	6.83	28.8	136.0	8.08	80.8
0.017	0.0715	<2.00	50.8	1020	341	7.9	0.18	4.62	26.6	135.0	7.03	82.4
<0.016	0.0716	<2.00	64.0	1250	393	8.9	0.40	5.98	26.7	147.0	8.98	96.5
0.019	0.0068	<1.60	<0.16	<16	17	<0.8	<0.08	0.08	<1.6	2.3	<0.08	4.5
0.023	0.0506	<1.60	12.8	527	335	11.6	0.16	7.03	36.6	92.0	8.58	91.2
0.025	0.0012	0.10	23.5	97	5	3.6	0.03	0.16	8.5	6.0	0.07	5.1
0.111	0.0008	0.05	1.5	123	5	3.1	0.02	0.01	5.5	5.6	0.05	0.8
0.067	0.0031	0.06	7.0	125	10	3.4	0.02	0.10	11.5	5.0	0.14	5.8
0.095	0.0030	<0.06	2.8	136	12	3.2	0.01	0.03	9.3	4.8	0.14	1.6
0.048	0.0085	<0.15	6.1	83	28	3.6	0.04	0.05	12.0	11.2	0.69	15.2
0.089	0.0095	<0.13	3.9	93	26	3.4	0.05	0.04	10.3	10.6	0.56	12.9
0.083	0.0372	<0.24	8.3	95	44	3.7	0.04	0.05	16.3	14.9	0.10	18.2
0.075	0.0460	<0.12	5.3	87	63	4.3	0.04	0.04	15.1	20.6	0.13	17.8
0.050	0.0017	<0.06	8.1	173	6	3.0	0.02	0.17	5.4	3.7	0.05	3.2
0.041	0.0012	<0.05	6.0	174	5	3.1	0.02	0.11	5.2	4.2	0.05	2.7
0.037	0.0024	<0.08	13.6	127	7	4.0	0.02	0.53	14.6	6.2	0.13	5.8
0.069	0.0019	<0.06	7.8	161	8	3.4	0.02	0.18	11.2	5.9	0.12	3.5
0.036	0.0045	<0.13	8.3	157	13	3.1	0.03	8.32	13.6	9.8	0.37	14.4
0.042	0.0031	<0.09	5.3	105	14	3.0	0.03	2.05	13.0	11.6	0.38	8.9

Cl	P	Ag	As	B	Ba	Be	Bi	Cd	Co	Cr	Cs	Cu
%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
0.052	0.0013	0.09	16.6	110	6	3.4	0.02	0.16	7.8	5.5	0.06	4.4
0.070	0.0090	<0.30	11.2	161	81	4.1	0.31	0.12	11.3	29.0	2.15	68.7
0.078	0.0075	<0.25	9.0	154	48	3.5	0.27	0.10	9.2	22.6	1.83	53.9
0.049	0.0064	0.21	6.4	132	33	3.5	0.23	0.12	13.3	18.8	1.27	38.1
0.058	0.0047	0.18	4.5	138	30	3.5	0.18	0.08	11.2	17.9	1.09	31.5
0.027	0.0058	<0.23	7.6	140	86	3.1	0.09	0.20	16.6	18.0	1.15	21.1
0.050	0.0043	0.21	6.8	131	37	3.0	0.07	0.16	14.6	16.4	1.05	16.7
0.040	0.0094	<0.31	8.3	142	66	3.7	0.33	0.10	12.7	24.9	2.00	72.6
0.059	0.0068	<0.24	8.2	144	51	3.3	0.28	0.11	12.3	21.9	1.72	53.6
0.026	0.0059	0.28	6.6	143	50	3.4	0.08	0.12	6.7	18.0	1.56	8.1
0.035	0.0043	0.20	4.3	155	42	3.0	0.14	0.06	5.3	16.3	1.22	6.9
0.025	0.0018	<0.13	1.8	161	21	3.2	0.05	0.21	3.7	9.6	0.91	4.2
0.030	0.0016	<0.11	1.6	167	21	3.1	0.04	0.09	3.5	9.1	0.94	3.2
0.026	0.0082	<0.34	11.9	159	41	2.0	0.06	0.14	3.6	13.9	1.46	8.5
0.037	0.0037	<0.15	3.8	154	20	2.2	0.04	0.08	2.5	11.3	0.74	8.4
0.037	0.0037	<0.25	2.6	174	50	2.2	0.03	0.16	3.4	14.2	1.44	4.9
0.032	0.0031	<0.21	1.6	168	49	2.1	0.02	0.12	3.1	12.3	1.30	5.1
0.047	0.0087	<0.25	7.4	155	52	3.2	0.22	0.12	11.7	21.6	1.61	53.2
0.032	0.0043	<0.25	2.6	169	52	2.3	0.04	0.15	3.5	13.3	1.41	4.9
0.239	0.0253	<0.14	38.6	148	36	1.6	0.04	0.02	2.9	10.0	0.49	4.2
0.353	0.0311	0.16	33.5	148	32	2.1	0.04	0.02	3.6	16.3	0.55	5.2
0.266	0.0013	<0.07	4.0	149	9	1.6	0.03	0.03	2.1	4.8	0.24	3.3
0.473	0.0016	<0.06	4.6	150	12	1.7	0.03	0.03	2.2	4.8	0.20	3.8
0.261	0.0022	<0.10	4.0	160	21	2.5	0.03	0.03	4.9	8.3	0.72	3.0
0.427	0.0028	<0.10	3.7	166	24	2.3	0.03	0.02	4.7	8.0	0.75	3.0
0.268	0.0030	<0.13	6.4	154	27	3.5	0.03	0.09	11.3	10.5	0.72	6.3
0.540	0.0037	<0.13	6.2	154	29	3.7	0.04	0.13	13.9	11.7	0.85	7.1
0.195	0.0109	<0.37	1.3	121	106	3.5	0.08	0.03	12.1	21.1	2.31	12.3

Cl	P	Ag	As	B	Ba	Be	Bi	Cd	Co	Cr	Cs	Cu
%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
0.140	0.0046	<0.31	0.5	117	74	2.5	0.06	0.02	5.7	15.4	2.22	6.2
0.214	0.0067	<0.29	0.6	126	70	2.2	0.06	0.13	6.3	18.2	1.97	7.9
0.009	0.0094	<0.69	2.9	100	109	3.1	0.17	<0.03	5.9	41.2	3.01	5.0
0.008	0.0044	<0.21	4.9	155	30	2.9	0.08	0.62	5.9	11.7	0.47	10.8
0.008	0.0030	<0.09	6.1	156	11	2.8	0.03	0.36	6.1	8.4	0.50	18.5
0.007	0.0035	<0.12	4.8	156	18	2.9	0.05	0.22	7.5	26.9	0.71	46.8
0.011	0.0017	<0.05	1.4	212	12	3.4	0.02	0.37	9.5	4.3	0.17	11.5
0.010	0.0022	<0.10	0.7	146	22	3.3	0.03	0.01	7.9	6.6	0.82	12.6
0.009	0.0038	<0.14	0.8	134	30	3.2	0.03	0.06	7.3	11.2	1.43	22.8
0.010	0.0127	<0.21	4.1	74	29	4.6	0.06	<0.01	10.2	31.1	0.62	54.1
0.006	0.0079	<0.29	12.1	167	45	2.2	0.05	0.03	3.7	17.6	1.02	9.0
0.007	0.0052	<0.24	1.0	131	34	2.1	0.08	0.02	3.5	17.3	0.77	3.8
0.005	0.0740	<0.55	3.0	90	107	4.3	0.41	0.03	8.6	83.9	1.42	134.0
0.008	0.0195	<0.23	4.0	102	38	2.3	0.06	0.19	8.2	43.1	0.40	25.6
0.046	0.0021	<0.18	1.3	126	40	2.7	0.05	0.18	3.0	12.3	1.49	6.7
0.156	0.0042	<0.18	2.5	129	42	2.6	0.05	0.17	2.9	12.3	1.51	6.9
0.055	0.0029	<0.17	0.9	116	31	3.2	0.07	0.78	2.6	14.6	1.25	10.5
0.064	0.0036	<0.14	1.0	122	26	3.3	0.06	1.56	2.5	13.5	0.98	10.3
0.054	0.0050	<0.18	4.6	94	23	3.0	0.05	0.09	2.8	10.0	1.23	4.2
0.081	0.0032	<0.12	1.5	124	24	3.2	0.05	0.14	2.5	9.7	1.09	4.1
0.061	0.0048	<0.18	2.8	121	38	3.0	0.05	0.05	3.8	13.7	1.10	7.9
0.115	0.0039	<0.17	2.4	125	36	2.8	0.05	0.06	3.6	13.5	1.09	7.8
0.090	0.0034	<0.08	2.8	127	14	1.7	0.03	0.10	2.2	18.4	0.56	13.9
0.157	0.0027	<0.08	2.5	145	14	1.6	0.03	0.20	1.8	15.8	0.60	12.0
0.085	0.0371	<0.14	3.7	124	50	2.8	0.05	1.26	3.5	14.1	0.48	14.6
0.137	0.0442	<0.12	2.9	126	54	2.7	0.04	0.05	3.2	13.4	0.44	11.1
0.070	0.0314	<0.38	56.7	116	89	2.9	0.25	0.17	8.5	24.1	2.47	66.5

Cl	P	Ag	As	B	Ba	Be	Bi	Cd	Co	Cr	Cs	Cu
%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
0.068	0.0058	<0.26	21.3	161	47	4.1	0.11	0.05	20.8	23.3	1.93	23.5
0.026	0.0210	<1.20	13.4	123	249	2.4	0.36	0.50	17.8	105.0	6.68	60.4
0.060	0.0149	<0.47	10.8	108	60	1.6	0.11	0.80	17.7	63.7	1.74	29.7
0.041	0.0064	<0.25	79.2	133	22	2.9	0.07	0.03	4.9	9.2	0.88	11.2
0.088	0.0045	<0.17	3.7	105	7	1.8	0.07	0.12	5.3	12.7	0.14	5.2
0.064	0.0049	<0.24	8.2	120	18	2.3	0.05	0.11	2.8	11.3	0.86	5.2
0.099	0.0031	<0.15	4.4	115	15	2.1	0.04	0.05	2.1	9.6	0.67	4.5
0.064	0.0049	<0.21	2.6	138	27	2.3	0.06	0.10	3.0	12.1	1.09	10.2
0.145	0.0041	<0.15	2.0	129	25	2.3	0.05	0.03	2.7	12.2	1.01	9.6
0.068	0.0067	<0.22	5.3	132	22	2.8	0.05	0.37	5.1	18.9	1.44	24.5
0.127	0.0047	<0.16	3.9	126	18	2.8	0.05	0.13	5.3	18.4	1.30	23.3
0.019	0.0098	<0.38	98.0	121	42	3.6	0.05	0.08	7.6	13.1	1.19	4.8
0.053	0.0059	<0.24	31.3	151	45	4.1	0.06	0.04	7.6	14.3	1.45	6.7
0.025	0.0042	<0.14	35.3	155	23	4.1	0.05	0.03	9.2	8.5	0.85	8.7
0.090	0.0045	<0.13	21.6	179	24	4.3	0.04	0.02	8.7	8.9	0.72	8.2
0.024	0.0060	<0.26	22.5	158	46	4.1	0.09	0.05	22.0	22.6	1.77	24.6
0.105	0.0315	<0.20	13.0	132	60	3.0	0.15	0.11	6.4	18.0	1.54	35.1
0.038	0.0045	<0.24	9.9	130	33	3.1	0.06	0.05	7.2	15.3	1.25	12.4
0.146	0.0038	<0.22	8.1	125	30	3.5	0.06	0.05	7.6	17.4	1.15	13.0
0.050	0.0098	<0.46	8.9	86	24	1.6	0.10	0.10	6.7	16.0	0.40	7.6
0.164	0.0037	<0.17	22.3	152	21	3.1	0.07	0.02	3.7	10.0	0.87	8.6
0.045	0.0052	<0.17	10.2	125	21	3.3	0.13	0.08	5.9	11.2	0.61	15.9
0.117	0.0039	<0.14	12.7	135	19	3.2	0.10	0.08	5.0	10.5	0.55	13.3
0.041	0.0041	<0.21	14.6	136	35	2.8	0.06	3.39	11.2	20.1	0.93	20.8
0.162	0.0025	<0.18	14.9	118	28	2.4	0.06	0.43	9.7	18.0	0.89	15.9
0.023	0.0043	<0.22	34.4	193	29	3.9	0.06	0.06	8.9	12.5	1.18	12.3
0.089	0.0040	<0.20	36.6	185	26	3.8	0.05	0.14	8.7	10.8	1.15	9.3
0.022	0.0029	0.08	6.1		26	1.9	0.05	0.40	3.9	13.5	0.99	6.5

Cl	P	Ag	As	B	Ba	Be	Bi	Cd	Co	Cr	Cs	Cu
%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
0.222	0.0074	0.13	5.3		1624	3.6	0.07	0.48	3.8	22.1	2.31	15.3
0.045	0.2108	0.52	17.5		445	4.2	0.41	0.18	25.4	100.9	9.10	46.7
0.155	0.0021	0.09	11.8		21	1.1	0.05	0.18	2.1	18.6	0.67	4.8
0.250	0.0051	0.05	10.3		29	0.4	0.03	0.17	1.6	6.2	0.74	3.5
0.197	0.0071	0.12	30.1		50	0.9	0.06	0.18	8.8	13.3	1.40	11.5
0.060	0.3553	3.51	36.6		279	3.3	0.54	82.99	20.3	466.7	10.30	147.3
0.194	0.0105	0.21	5.7		79	3.8	0.07	0.27	5.6	22.1	2.21	17.7
0.220	0.0101	0.13	52.3		102	1.7	0.06	0.14	4.9	14.1	1.05	10.8
0.265	0.0077	0.09	7.4		20	0.9	0.10	0.04	3.0	11.0	1.03	10.8
0.252	0.0049	0.15	31.4		38	1.1	0.13	0.14	7.8	15.4	1.38	28.6
0.254	0.0020	0.11	4.1		92	1.0	0.06	0.13	2.8	15.4	1.34	6.0
0.244	0.0033	0.07	8.0		22	0.8	0.04	0.15	3.1	16.8	1.01	4.8
0.228	0.0066	0.10	15.0		43	1.4	0.05	0.18	5.9	22.9	1.21	11.1
0.045	0.1178	1.79	43.7		295	2.8	0.60	34.88	19.3	288.9	10.88	104.7
0.179	0.0038	0.14	5.1		24	5.8	0.07	0.96	9.3	14.8	1.86	13.1
0.039	0.2856	1.17	62.0		286	3.6	0.57	1.43	20.3	160.2	10.26	63.1
0.040	1.6613	4.71	70.3		261	3.4	0.53	65.98	20.3	394.1	9.71	139.1
0.067	0.1050	2.68	51.5		266	3.8	0.38	32.95	21.6	213.0	9.61	92.7
0.229	0.0032	0.09	2.3		47	1.3	0.07	2.10	3.2	15.4	1.57	8.8
0.229	0.0032	0.04	12.5		466	1.0	0.04	0.24	2.5	8.1	1.10	4.0
0.225	0.0109	0.07	13.6		41	1.6	0.05	0.81	5.1	13.3	1.18	8.4
0.047	0.1248	1.97	35.8		393	3.1	0.50	64.58	19.2	349.5	10.58	118.7
0.181	0.0177	0.50	59.7		46	5.8	0.12	0.75	16.8	54.6	4.43	28.9
0.032	0.0917	1.71	83.5		409	3.6	0.83	20.44	25.3	204.0	13.01	91.7
0.230	0.0293	0.22	6.3		23	1.4	0.08	0.22	2.7	55.8	1.22	7.2
0.236	0.0016	0.06	1.7		19	1.5	0.05	0.09	1.9	8.4	1.22	4.9
0.212	0.0194	0.17	9.8		71	3.4	0.13	0.07	7.8	30.2	2.86	12.6
0.215	0.0061	0.16	8.4		110	2.8	0.08	3.13	4.9	30.2	1.70	13.6

Cl %	P %	Ag ppm	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Cd ppm	Co ppm	Cr ppm	Cs ppm	Cu ppm
0.110	0.0046	0.17	9.8	26	55	1.9	0.10	0.03	3.5	8.3	0.29	7.7
0.082	0.0327	<0.71	491.8	161	54	1.2	0.14	0.25	12.1	115.1	0.36	19.0
0.111	0.0046	0.21	12.6	29	59	2.2	0.09	0.04	4.0	7.3	0.37	9.4
0.132	0.0026	0.09	4.5	16	32	1.2	0.04	0.02	2.0	4.1	0.19	4.5
0.118	0.0071	0.16	11.0	35	71	2.6	0.07	0.03	4.5	8.8	0.34	9.9
0.164	0.0062	0.14	4.5	21	59	1.4	0.07	0.03	2.8	6.3	0.25	7.6
0.133	0.0042	0.08	5.3	18	41	0.9	0.05	0.02	1.8	3.5	0.13	5.4
0.130	0.0063	0.17	5.5	26	67	1.4	0.06	0.03	2.7	5.5	0.32	8.0
0.116	0.0027	<0.11	20.5	23	38	1.5	0.06	0.04	3.2	5.4	0.24	6.5
0.098	0.0042	<0.16	20.0	29	51	3.4	0.08	0.06	5.4	10.5	0.79	10.5
0.137	0.0010	<0.04	9.3	20	21	1.0	0.03	0.02	1.4	1.3	0.03	2.5
0.092	0.0015	0.04	0.9	22	44	0.5	0.04	0.01	1.2	1.5	0.03	3.0
0.117	0.0021	0.07	0.5	14	37	0.9	0.05	0.01	1.8	2.8	0.04	5.2
0.098	0.0058	0.21	1.1	15	51	2.0	0.10	0.03	4.3	10.2	0.24	12.7
0.110	0.0037	0.27	1.0	10	29	1.6	0.07	0.03	3.7	6.5	0.59	6.8
0.059	0.0307	<0.70	474.3	171	56	1.1	0.08	0.21	12.6	8.4	0.39	16.4
0.101	0.0027	<0.09	16.6	22	35	1.4	0.05	0.04	2.7	4.6	0.21	5.7
0.019	0.0743	<2.00	115.0	430	1000	31.0	0.51	0.27	57.0	148.0	5.90	111.0
0.019	0.0664	<1.79	77.4	275	912	28.2	0.89	0.33	50.8	123.4	4.92	117.2
0.021	0.0617	<1.77	90.0	247	909	29.2	2.21	0.36	51.7	130.6	5.12	120.0
0.017	0.0586	<1.67	85.4	236	828	27.9	1.26	0.36	48.5	120.6	4.86	115.6
0.018	0.0574	<1.75	76.2	197	805	28.0	1.31	0.32	51.2	126.1	4.73	115.6
0.015	0.0582	<1.81	75.8	198	906	27.6	0.89	0.32	50.0	120.8	5.15	107.5
0.021	0.0580	<1.76	69.6	187	825	27.3	0.81	0.28	51.0	121.2	4.78	107.9

Cl	P	Ag	As	B	Ba	Be	Bi	Cd	Co	Cr	Cs	Cu
%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
0.017	0.0548	<1.67	69.3	182	758	24.5	0.76	0.33	46.3	107.8	4.51	113.7
0.018	0.0566	<1.73	68.5	180	826	25.5	0.75	0.29	47.0	113.2	4.41	101.1
0.018	0.1414	<1.80	485.5	411	1205	47.5	4.41	1.80	88.4	244.6	6.83	236.5
1.007	0.1359	<1.77	487.8	393	1199	46.9	4.71	1.78	89.7	225.7	6.93	225.7
0.017	0.1691	<1.79	691.8	466	1287	52.4	6.12	2.34	102.6	237.5	7.20	262.7
0.018	0.1555	<1.77	565.9	422	1139	49.8	5.52	13.79	94.3	240.2	7.12	242.9
0.022	0.2524	<1.75	1443.8	514	1566	53.4	8.58	3.85	126.0	281.8	8.58	363.1
0.017	0.1886	<1.73	748.4	475	1269	50.7	6.56	2.42	103.6	268.4	7.16	278.8
0.019	0.0624	<1.90	17.9	181	849	25.2	0.56	<0.10	46.0	121.8	4.76	85.4
0.016	0.0512	<1.66	79.5	164	763	26.4	0.92	0.33	49.0	113.8	4.69	106.3
0.015	0.1690	<1.79	678.8	464	1376	51.4	5.75	2.25	101.6	256.2	6.92	267.9
0.035	0.0266	<0.51	74.8	20	134	3.0	0.18	0.39	6.6	38.5	2.12	31.5
0.021	0.0279	<0.51	80.9	16	139	3.0	0.20	0.44	6.6	38.1	2.28	32.3
0.024	0.0130	<0.15	5.3	14	176	1.1	0.09	0.04	3.4	18.0	1.06	5.0
0.093	0.0088	<0.28	46.1	4	43	1.7	0.17	0.10	5.8	26.2	0.87	30.5
0.083	0.0205	<0.47	34.2	11	125	1.9	0.29	0.18	8.8	45.1	1.88	37.5
0.025	0.0508	<1.20	82.8	31	337	3.1	0.63	0.36	20.2	91.7	5.82	62.6
0.016	0.0939	<1.60	36.3	40	554	4.0	0.75	0.33	29.0	110.0	6.79	78.9
0.065	0.0189	<0.51	32.7	12	139	2.0	0.27	0.16	8.7	42.8	2.27	35.7
0.016	0.0185	<0.34	33.4	<3	97	2.7	0.09	0.08	9.6	19.8	1.79	6.5
0.019	0.0040	<0.14	2.4	16	37	0.9	0.08	0.06	3.8	11.2	0.68	5.3
<0.016	0.0526	<0.56	26.7	21	189	1.9	0.30	0.17	9.5	42.3	4.03	50.4
0.048	0.0158	<0.26	15.5	6	82	1.7	0.12	0.09	8.5	27.3	1.45	26.4
0.036	0.0372	<0.50	28.6	8	128	2.6	0.12	0.12	12.7	32.9	2.89	12.9
0.019	0.0125	<0.30	4.8	16	79	1.3	0.12	0.09	6.4	22.4	2.03	10.3
<0.016	0.0476	<0.79	17.3	35	244	2.2	0.33	0.20	13.6	55.9	5.82	54.3
0.114	0.0068	<0.17	50.6	6	25	1.0	0.09	0.10	6.3	15.7	0.69	14.0
0.082	0.0373	<0.35	20.9	6	90	1.7	0.14	0.22	7.1	28.4	1.71	19.3

Cl	P	Ag	As	B	Ba	Be	Bi	Cd	Co	Cr	Cs	Cu
%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
0.076	0.0113	<0.38	35.2	6	94	1.9	0.19	0.13	7.2	36.7	1.77	31.6
0.031	0.0754	<1.50	113.0	43	387	2.4	0.50	0.26	21.4	80.3	8.75	50.0
0.085	0.2640	<0.86	80.1	22	591	3.7	0.44	0.33	22.9	58.7	4.88	34.1
<0.016	0.0275	<0.24	11.0	6	73	1.6	0.13	0.09	5.1	25.9	1.43	17.0
<0.016	0.1150	<0.39	32.5	189	206	1.6	0.38	0.35	8.5	30.0	2.65	23.1
0.017	0.0037	<0.08	0.3	3	65	0.4	0.06	0.01	2.2	6.2	0.20	5.5
0.150	0.0280	<0.29	22.9	17	250	2.1	0.15	0.17	6.0	21.0	1.16	21.9
0.136	0.0487	<0.40	27.3	18	281	2.2	0.23	0.14	9.1	27.9	1.83	28.1
0.043	0.0589	<1.20	39.8	40	1260	3.3	0.53	0.39	22.0	71.8	6.78	53.9
0.102	0.0387	<0.63	16.4	29	872	2.4	0.28	0.24	10.6	42.8	3.22	30.8
0.147	0.0250	<0.19	13.4	11	165	3.1	0.09	0.06	3.4	20.3	0.78	15.5
0.094	0.0049	<0.19	16.3	57	51	1.3	0.12	0.11	3.5	12.9	0.99	6.2
0.056	0.0319	<0.62	16.4	59	188	1.5	0.36	0.19	9.3	39.3	3.44	29.6
0.055	0.0240	<0.64	12.8	64	183	1.6	0.38	0.20	8.6	43.4	3.61	25.9
0.068	0.0115	<0.19	7.1	59	56	1.1	0.13	0.11	4.5	15.4	0.87	8.4
<0.016	0.0557	<1.70	40.8	64	555	2.6	0.89	0.43	19.3	88.3	8.67	59.7
0.096	0.0361	<0.20	26.3	87	142	1.4	0.27	0.08	3.0	13.9	0.47	36.4
<0.016	0.0062	<0.08	1.7	38	28	1.0	0.08	0.05	7.6	6.4	0.34	10.0
0.124	0.0204	<0.17	55.4	31	75	2.5	0.12	0.07	4.5	12.7	1.26	15.4
0.194	0.0051	<0.16	3.8	14	58	2.1	0.16	0.11	11.3	17.5	0.78	26.9
0.204	0.0030	<0.11	0.9	6	71	1.0	0.04	0.02	9.2	8.1	0.89	9.2
0.100	0.1090	<0.23	19.5	55	314	1.4	0.13	0.11	6.9	18.7	1.78	29.8
0.190	0.0897	<0.19	2.1	44	251	1.1	0.21	0.08	4.9	14.7	0.67	17.9
0.047	0.0013	0.08	1.4	16	20	1.7	0.14	0.03	4.7	4.6	0.05	6.3
0.025	0.0196	<0.14	73.3	43	75	0.8	0.12	0.09	3.4	7.1	0.52	20.1
0.052	0.0220	<0.07	1.7	35	61	1.5	0.09	0.09	10.0	9.4	0.14	23.4
0.020	0.0065	<0.17	6.5	39	132	0.9	0.13	0.10	6.6	14.8	1.78	7.2
0.084	0.0019	<0.11	2.1	9	37	2.1	0.22	0.06	5.9	15.6	0.44	23.8

Cl	P	Ag	As	B	Ba	Be	Bi	Cd	Co	Cr	Cs	Cu
%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
0.070	0.0079	<0.13	1.9	10	57	1.3	0.22	0.09	7.7	20.7	1.35	24.3
0.118	0.0017	0.07	1.1	7	36	0.9	0.11	0.03	7.0	10.5	0.25	15.2
0.084	0.0032	<0.13	2.5	8	68	3.9	0.13	0.08	7.1	16.4	1.59	26.0
0.081	0.0420	<0.27	39.3	29	145	1.7	0.34	0.12	9.4	31.3	2.71	31.3
0.058	0.0055	0.21	5.3	23	136	2.1	0.27	0.09	8.8	28.8	3.30	25.7
0.089	0.0219	<0.24	11.6	24	149	1.8	0.24	0.10	9.8	27.5	3.16	25.8
0.048	0.0036	<0.14	27.7	16	143	4.3	0.08	0.10	8.2	13.4	0.89	11.3
0.065	0.0076	<0.30	18.4	28	213	2.0	0.26	0.11	11.0	33.1	3.48	15.9
0.090	0.0029	<0.23	27.2	37	144	2.2	0.27	0.09	10.7	28.7	2.69	26.9
0.061	0.0028	<0.13	3.5	33	77	1.0	0.18	0.04	7.1	16.5	1.15	19.1
0.075	0.0041	<0.19	47.0	24	77	1.3	0.13	0.09	10.9	24.0	2.04	7.4
0.030	0.0067	<0.31	4.2	18	495	2.7	0.19	0.08	9.2	35.0	4.73	16.5
0.115	0.0009	0.14	0.6	3	69	5.7	0.22	0.03	7.9	8.2	0.04	19.5
0.056	0.0073	0.37	2.0	32	202	2.5	0.32	0.05	8.1	41.7	4.10	22.6
0.120	0.0190	0.06	1.9	12	60	1.1	0.06	0.07	7.8	10.8	0.50	18.1
0.094	0.0023	0.13	2.0	7	51	1.5	0.24	0.04	6.6	17.7	0.39	27.2
0.111	0.0012	0.11	0.8	7	53	1.5	0.20	0.01	7.3	21.1	0.76	30.5
0.157	0.0020	0.13	2.5	12	90	9.1	0.25	0.02	9.3	19.0	0.26	30.9
0.063	0.0030	0.19	8.8	37	47	5.6	0.24	0.07	17.1	27.3	0.94	18.2
0.153	0.0014	<0.08	1.5	48	51	5.5	0.11	0.11	14.7	11.3	1.21	31.1
0.062	0.0074	<0.29	4.4	24	140	1.6	0.26	0.08	10.7	35.9	3.05	20.6
0.078	0.0068	<0.40	2.5	27	263	2.7	0.35	0.12	11.0	51.7	5.33	31.4
0.116	0.0014	<0.082	7.4	22	57	0.6	0.12	0.04	4.8	14.9	0.27	13.2
0.105	0.0027	0.13	0.6	4	70	2.5	0.26	0.03	8.3	20.4	0.43	29.7
0.142	0.0009	0.06	25.0	9	70	3.1	0.18	0.05	7.9	11.8	0.36	21.7
0.167	0.0049	0.06	6.1	10	73	3.0	0.11	0.08	7.5	8.3	0.55	17.6
0.035	0.0064	0.21	5.5	34	91	3.3	0.23	0.03	7.9	28.0	3.27	18.5
0.030	0.0069	<0.27	8.2	30	129	4.6	0.29	0.10	19.4	47.5	4.49	32.5

Cl	P	Ag	As	B	Ba	Be	Bi	Cd	Co	Cr	Cs	Cu
%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
0.057	0.0036	0.15	9.6	32	54	1.4	0.21	0.05	9.4	30.2	1.44	21.1
0.029	0.0388	0.09	7.5	24	134	0.5	0.08	0.04	3.6	10.2	0.66	3.7
0.037	0.0517	0.26	9.0	<5	877	2.1	0.23	0.13	10.1	40.2	2.80	23.5
0.169	0.0219	<0.16	34.4	25	66	1.0	0.12	0.06	6.6	23.0	1.63	10.1
0.041	0.0367	0.33	0.7	9	158	1.2	0.42	0.18	6.4	39.4	0.21	72.3
0.025	<0.0040	0.28	1.7	15	117	6.1	0.37	0.03	10.7	48.6	2.00	53.5
0.088	0.0222	0.20	3.7	14	90	1.6	0.28	0.03	8.8	28.3	0.50	28.4
0.078	0.0030	0.08	0.5	2	69	1.0	0.12	0.02	3.6	12.2	0.48	162.0
0.185	0.0026	0.09	7.0	20	75	1.3	0.18	0.03	3.4	12.2	0.48	21.4
0.061	0.0022	<0.21	15.4	19	353	1.6	0.24	0.08	9.5	23.4	2.74	34.5
0.091	<0.0040	0.23	2.4	22	106	1.6	0.24	0.05	7.7	31.7	1.29	33.9
0.149	0.0037	0.16	1.5	8	97	1.3	0.26	0.05	6.7	21.1	0.93	27.5
0.026	0.0427	0.22	3.9	32	300	1.5	0.14	0.10	9.0	40.1	3.29	22.9
0.015	0.0028	0.27	5.0	28	159	0.8	0.17	0.05	6.8	22.0	2.06	11.4
0.025	0.0081	0.15	4.2	27	98	0.9	0.14	0.05	4.6	19.9	1.50	15.6
0.039	0.0106	0.14	15.3	47	69	0.7	0.11	0.06	6.0	16.6	1.45	6.0
0.037	0.0130	<0.13	26.3	42	107	1.1	0.09	0.05	5.6	15.5	1.32	5.3
0.025	0.0054	<0.06	15.2	22	145	0.5	0.04	0.03	2.9	6.6	0.38	1.9
0.025	0.1028	<0.37	2.9	10	506	1.5	0.32	0.12	10.8	52.1	4.63	23.7
0.094	0.0114	0.08	7.0	2	62	1.6	0.08	0.08	13.8	11.8	0.33	6.7
0.045	0.0340	0.18	35.0	<3	166	1.4	0.18	0.11	11.3	25.6	1.84	15.4
0.150	0.0671	0.18	22.6	9	150	1.1	0.18	0.08	5.8	25.3	1.87	12.7
0.181	0.0227	<0.15	37.6	7	47	1.2	0.08	0.08	9.9	15.1	0.99	4.8
0.181	0.0023	<0.09	8.9	17	74	1.3	0.19	0.03	3.2	11.5	0.49	20.5
0.138	0.0262	0.18	1.6	<3	130	2.0	0.27	0.14	10.8	26.7	1.38	44.1
0.107	0.0009	0.05	1.3	1	42	1.4	0.09	0.02	3.3	6.0	0.05	11.1
0.104	0.0022	<0.10	2.9	2	86	2.6	0.11	0.06	9.4	15.6	1.46	20.2
0.093	0.0015	0.28	5.4	8	98	4.6	0.28	0.07	9.4	27.4	2.64	25.0

Cl	P	Ag	As	B	Ba	Be	Bi	Cd	Co	Cr	Cs	Cu
%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
0.052	<0.0050	<0.26	25.3	<5	191	8.7	0.29	0.19	13.5	34.5	4.18	32.9
0.081	<0.0030	<0.15	12.4	4	106	1.5	0.13	0.06	6.8	22.3	2.55	13.8
0.124	<0.0010	0.06	1.7	4	51	1.3	0.06	0.01	5.5	10.1	0.29	11.8
0.144	<0.0010	0.05	0.8	3	25	0.8	0.06	0.03	8.6	7.1	0.05	15.0
0.053	<0.0050	0.25	10.0	7	163	6.8	0.24	0.08	9.6	36.9	4.62	19.4
0.094	0.0185	0.23	1.5	15	161	1.8	0.28	0.06	10.2	37.8	2.72	26.1
0.100	0.0334	0.20	1.1	11	480	1.5	0.30	0.11	5.6	35.0	2.08	26.3
0.074	0.0047	<0.24	3.9	<5	171	2.0	0.22	0.06	10.4	34.0	2.76	23.3
0.103	<0.0040	<0.19	3.0	34	108	0.8	0.23	0.05	5.7	21.7	1.35	26.4
0.128	0.0056	0.08	7.1	31	275	0.5	0.17	0.03	4.1	13.7	0.74	20.2
0.093	0.0115	0.11	1.9	26	251	0.7	0.15	0.05	4.5	12.9	0.77	16.4
0.153	0.0031	<0.10	4.7	21	127	1.0	0.11	0.04	7.6	14.6	1.18	20.6
0.131	0.0235	0.13	4.7	25	217	1.0	0.24	0.06	7.1	21.5	0.20	38.8
0.068	0.0024	0.12	5.0	8	187	1.7	0.24	0.20	12.0	21.3	0.88	49.1
0.179	0.0009	0.07	7.4	21	33	0.3	0.09	0.03	2.8	5.4	0.08	15.2
0.155	0.0005	0.06	0.7	1	40	9.6	0.11	0.02	3.1	5.6	0.30	18.2
0.115	<0.0010	0.14	0.8	3	39	2.1	0.21	0.03	7.4	18.0	0.11	25.4
0.062	<0.0050	0.28	9.6	<5	178	7.3	0.23	0.07	10.6	40.8	4.68	20.3
0.078	0.0044	<0.23	3.0	34	39	1.6	0.25	0.05	6.6	18.9	0.72	23.3
0.096	0.0029	<0.33	2.5	32	57	2.1	0.26	0.07	7.4	27.0	0.91	24.4
0.074	0.0028	<0.22	1.8	39	40	1.6	0.15	0.04	9.2	20.1	0.79	21.8
0.027	0.0050	<0.76	5.2	42	239	2.4	0.22	0.06	9.7	39.9	3.61	26.4
0.075	0.0021	<0.33	6.0	39	66	2.1	0.23	0.05	8.0	25.9	1.17	25.0
0.101	0.0035	<0.24	1.2	40	42	5.7	0.16	0.03	17.3	21.6	0.72	18.3
0.089	0.0037	<0.24	5.8	40	63	2.4	0.12	0.05	13.0	23.0	1.08	28.4
0.059	0.0029	<0.67	3.7	43	148	2.3	0.16	0.04	10.0	35.6	3.26	17.2
0.119	0.0038	<0.35	2.5	46	95	2.1	0.28	0.05	11.2	25.6	1.82	23.6
0.074	0.0070	<0.46	8.5	35	124	2.6	0.37	0.08	10.0	32.0	2.35	29.2

Cl	P	Ag	As	B	Ba	Be	Bi	Cd	Co	Cr	Cs	Cu
%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
0.077	0.0012	<0.29	2.3	22	88	1.1	0.21	0.05	7.8	27.9	1.44	13.5
0.071	0.0158	<0.49	2.3	25	162	1.3	0.13	0.04	8.3	27.9	2.51	12.8
0.132	0.0049	<0.23	1.7	15	58	1.0	0.17	0.02	6.8	14.9	0.74	15.3
0.065	0.0025	<0.59	3.5	28	172	1.9	0.19	0.06	10.9	39.8	4.07	20.4
0.096	0.0014	<0.33	2.1	21	95	2.5	0.10	0.05	5.2	20.7	1.92	13.3
0.131	0.0004	<0.10	1.4	11	31	7.7	0.05	0.01	12.6	8.8	0.31	16.2
0.072	0.0020	<0.47	10.3	29	178	1.9	0.16	0.08	12.5	28.4	3.47	29.8
0.073	0.0016	<0.37	4.2	22	169	1.7	0.20	0.09	10.0	25.4	2.51	26.9
0.076	0.0007	<0.17	1.2	14	76	1.4	0.10	0.04	11.7	7.5	0.08	15.8
0.094	0.0017	<0.27	2.5	24	113	1.8	0.08	0.07	9.0	17.4	1.96	12.3
0.129	0.0021	<0.14	1.4	11	54	3.3	0.12	0.04	5.4	11.3	0.60	16.5
0.129	0.0015	<0.14	1.3	15	49	5.6	0.09	0.03	9.5	11.0	0.83	22.7
0.092	0.0028	<0.65	2.1	27	213	5.7	0.27	0.07	15.0	44.3	6.00	29.2
0.017	0.0038	<0.88	5.9	28	232	3.7	0.20	0.10	14.3	56.3	6.99	22.4
0.094	0.0009	<0.21	4.1	16	47	1.3	0.15	0.04	6.4	18.9	1.58	11.2
0.034	0.0028	<0.64	8.9	29	169	3.2	0.14	0.08	7.8	41.4	5.38	17.1
0.168	0.0046	<0.53	3.5	31	206	4.5	0.24	0.11	17.2	47.0	2.42	23.4
0.171	0.0037	<0.29	8.6	29	94	2.2	0.19	0.05	10.0	24.6	0.83	13.6
0.089	0.0096	<0.45	12.3	16	55	3.5	0.35	0.07	12.4	39.7	0.46	21.2
0.111	0.0658	<0.47	33.6	29	101	2.1	0.17	0.06	9.5	40.4	2.04	12.7
0.091	0.0034	<0.32	2.3	21	91	3.4	0.11	0.05	5.8	22.3	1.98	10.8
0.069	0.0016	<0.37	4.2	22	167	2.4	0.18	0.08	11.0	27.9	2.47	21.1
0.159	0.0043	<0.21	15.7	22	79	5.3	0.16	0.09	14.1	14.2	1.39	24.9
0.179	0.0104	<0.23	8.8	30	141	2.3	0.12	0.09	7.4	19.1	1.30	16.4
0.187	0.0025	<0.14	45.1	32	56	3.0	0.07	0.03	3.4	5.4	0.10	11.5
0.159	0.0030	0.12	2.1	10	74	20.0	0.12	0.07	4.5	7.0	0.75	15.6
0.187	0.0015	<0.07	2.5	10	43	3.6	0.06	0.05	14.7	4.9	0.20	14.1
0.086	0.0056	<0.23	59.5	16	78	2.9	0.11	0.09	7.4	20.6	1.85	42.3

Cl	P	Ag	As	B	Ba	Be	Bi	Cd	Co	Cr	Cs	Cu
%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
0.142	0.0051	<0.18	0.8	41	32	1.3	0.14	0.05	8.3	20.8	0.66	18.2
0.155	0.0080	<0.52	11.6	28	232	2.8	0.46	0.22	10.4	34.6	3.38	70.9
0.212	0.0056	<0.23	7.8	19	78	1.8	0.28	0.08	5.2	15.4	1.40	36.8
0.086	0.0074	<0.38	13.2	49	67	2.8	0.51	0.13	7.8	21.8	2.35	57.3
0.086	0.0036	0.33	1.5	21	41	4.0	0.32	0.03	10.7	24.8	0.35	30.2
0.208	0.0041	<0.35	3.0	43	95	1.8	0.20	0.04	8.9	24.7	2.81	23.1
0.074	0.1010	0.91	2.2	<6	419	5.4	0.55	0.15	8.8	67.5	1.77	149.0
0.181	0.0047	0.24	35.3	29	110	3.6	0.12	0.03	2.9	14.7	0.97	16.3
0.187	0.0095	<0.30	13.9	27	118	3.6	0.24	0.14	5.5	17.2	1.87	35.9
0.044	0.0700	0.59	3.5	23	128	2.3	0.34	0.14	9.0	42.0	1.85	49.9
0.099	0.1170	<0.35	60.6	57	127	1.4	0.13	0.17	7.1	32.4	0.67	19.0
0.082	0.0089	0.52	17.9	42	171	3.5	0.24	0.48	15.0	86.6	1.09	37.2
0.082	0.0214	<0.22	5.9	31	73	1.9	0.08	0.05	3.5	13.7	0.94	5.8
0.025	0.0070	<0.49	5.5	25	150	5.6	0.19	0.08	10.4	34.3	3.72	18.8
0.041	0.0382	<0.33	17.5	56	126	1.2	0.13	0.10	6.0	20.3	1.76	11.3
0.048	0.0079	<0.27	3.2	34	54	1.5	0.12	0.11	3.8	15.8	1.42	7.2
0.091	0.0107	<0.22	4.4	70	99	0.7	0.16	0.08	3.1	12.6	0.66	6.2
0.037	0.0091	<0.17	26.7	104	129	0.7	0.10	0.04	1.9	7.7	0.47	4.6
0.106	0.0071	0.47	26.6	31	56	1.1	0.23	0.10	11.4	28.7	1.24	23.7
0.088	0.0062	0.52	25.5	34	89	3.1	0.48	0.13	19.0	51.6	2.02	42.2
0.075	0.0043	<0.48	1.6	16	135	4.5	0.35	0.06	9.2	38.4	3.62	27.3
0.158	0.0025	<0.19	3.1	11	70	1.6	0.17	0.08	5.8	14.0	0.79	18.5
0.146	0.0023	0.22	10.4	13	71	4.1	0.20	0.08	8.9	15.4	0.63	23.0
0.132	0.0026	0.14	2.5	9	37	3.9	0.12	0.01	6.1	8.7	0.19	17.3
0.083	0.0048	<0.36	25.2	16	140	1.5	0.12	0.07	11.6	25.0	2.52	23.2
0.161	0.0012	0.12	1.1	7	60	3.8	0.17	0.02	6.4	9.0	0.24	18.0
0.096	0.0048	0.22	0.7	25	75	1.7	0.20	0.03	8.3	22.1	0.33	22.6
0.073	0.0042	<0.19	13.3		158	0.5	0.11	0.05	3.0	10.9	0.48	6.9

Cl	P	Ag	As	B	Ba	Be	Bi	Cd	Co	Cr	Cs	Cu
%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
0.101	0.0058	<0.50	13.3		123	3.8	0.16	0.11	11.7	37.9	3.38	22.9
0.140	0.0032	0.38	3.9		44	11.4	0.13	0.12	10.9	26.3	1.90	30.3
0.122	0.0027	0.29	4.9		29	25.6	0.10	0.15	22.3	18.8	0.28	64.2
0.093	0.0391	0.41	123.7		149	3.4	0.20	0.35	11.1	59.4	1.12	28.7
0.246	0.0122	0.33	23.7		52	3.7	0.14	0.17	18.3	24.3	0.46	50.4
0.168	0.0059	<0.79	3.2		157	2.0	0.13	0.09	19.0	44.3	3.07	22.0
0.274	0.0056	<0.16	2.0		61	1.1	0.06	0.06	9.2	13.5	0.70	12.3
0.106	0.0701	0.73	68.6		346	2.2	0.40	0.26	81.8	55.0	0.41	42.1
0.065	0.0349	0.92	3.6		189	2.8	0.39	0.09	16.3	62.1	1.56	37.9
0.028	0.0330	<0.36	246.0		41	3.4	0.06	0.14	4.0	13.8	1.17	11.4
0.013	0.0071	<0.98	236.6		157	7.7	0.24	0.20	17.6	51.0	4.95	26.9
0.079	0.0039	0.66	30.9		56	5.9	0.55	0.26	17.6	62.5	0.36	38.6
0.188	0.0052	<0.23	5.2		46	9.1	0.28	0.25	17.1	32.2	2.24	103.5
0.126	0.0078	<0.57	69.1		129	3.1	0.57	0.16	13.5	41.1	3.12	76.2
0.064	0.0067	<0.64	1357.8		32	2.2	0.12	0.20	9.1	22.7	0.81	121.1
0.033	0.0028	<0.37	4.2		86	0.8	0.10	0.10	5.0	19.4	2.15	8.5
0.025	0.0184	<0.35	7.8		103	1.3	0.09	0.06	6.4	21.1	2.36	7.8
0.029	0.0090	<0.45	38.0		116	1.5	0.11	0.07	6.4	26.8	2.37	12.5
0.037	0.0020	<0.28	4.7		77	0.8	0.08	0.07	4.1	22.9	1.29	7.3
0.095	0.0079	<0.20	6.5		83	0.8	0.13	0.02	2.8	14.9	0.78	6.6
0.056	0.0070	<0.15	5.8		93	0.5	0.10	0.04	2.7	11.6	0.51	7.0
0.073	0.0043	<0.19	12.9		156	0.5	0.11	0.05	3.1	11.3	0.52	7.3
0.056	0.0532	0.56	37.8		159	1.4	0.30	0.28	25.9	42.9	2.26	31.7
0.063	0.0128	<0.35	35.5		68	1.7	0.14	0.19	12.6	37.8	1.22	18.5
0.063	0.0224	0.87	20.6		245	1.8	0.44	0.21	14.9	66.1	2.66	39.6
0.137	0.0015	<0.08	2.5		53	2.8	0.04	0.03	22.9	8.5	0.08	11.9
0.066	0.0049	<0.32	0.9		58	1.0	0.17	0.04	7.5	28.4	1.36	16.4
0.060	0.0025	<0.26	0.9		69	0.6	0.13	0.13	4.9	24.5	1.81	15.8

Cl	P	Ag	As	B	Ba	Be	Bi	Cd	Co	Cr	Cs	Cu
%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
0.117	0.0019	<0.16	2.8		28	1.4	0.11	0.03	4.1	10.6	0.08	9.0
0.145	0.0010	0.09	1.3		21	2.6	0.04	0.04	7.7	8.9	0.36	11.8
0.023	0.0056	<0.64	1.0		154	7.3	0.16	<.0.03	11.2	46.1	6.25	18.3
0.097	0.0058	<0.29	2.5		96	5.2	0.11	0.09	10.7	25.4	2.51	15.2
0.016	0.0076	<0.91	1.4		311	2.0	0.22	<.0.05	12.6	63.6	9.16	20.7
0.164	0.0015	<0.19	1.6		35	0.7	0.08	0.04	8.0	9.7	0.30	11.8
0.128	0.0032	0.23	1.2		44	5.1	0.19	0.04	14.3	25.8	0.96	30.2
0.072	0.0034	<0.16	5.2		40	1.2	0.11	0.06	8.2	16.9	0.91	15.9
0.160	0.0020	<0.17	1.2		28	14.7	0.10	0.04	13.0	16.6	0.78	16.7
0.088	0.0022	<0.17	0.8		32	1.4	0.07	0.03	9.8	14.7	1.12	9.9
0.143	0.0017	<0.10	0.8		19	2.4	0.04	0.02	18.1	9.9	0.36	14.4
0.023	0.0385	0.76	150.6		821	2.4	0.31	0.19	21.5	55.4	2.54	36.6
0.024	0.0508	<0.59	113.0		89	3.9	0.09	0.26	22.9	35.9	1.97	36.5
0.062	0.2516	0.56	54.1		732	3.0	0.32	0.21	17.9	56.5	1.56	37.4
0.177	0.0048	<0.36	102.2		92	2.3	0.17	0.27	7.7	21.9	1.78	33.5
0.153	0.0038	0.31	49.5		79	3.8	0.20	0.16	24.9	26.1	1.41	33.9
0.016	0.0072	<0.91	1.5		283	2.0	0.23	<.0.05	12.7	63.5	9.52	21.4

Ga ppm	Ge ppm	Hg ppm	Li ppm	Mn ppm	Mo ppm	Nb ppm	Ni ppm	Pb ppm	Rb ppm	Sb ppm	Sc ppm	Se ppm
6.5	1.0	0.54	6.5	59.3	2.2	2.8	6.9	6.8	11.6	0.8	4.9	2.8
8.3	1.0	0.32	9.7	55.5	1.2	4.6	6.4	13.3	14.7	1.3	7.7	6.3
1.2	0.2	0.06	1.8	48.5	0.2	0.8	2.0	0.5	0.2	0.1	1.3	0.8
1.4	0.2	0.04	3.2	29.7	0.2	0.8	0.8	0.5	0.2	0.1	1.2	0.8
3.3	0.8	0.76	2.1	22.0	0.3	1.7	1.6	0.9	0.2	0.2	1.1	1.1
0.9	0.1	0.04	1.5	17.6	0.3	0.7	1.9	0.1	0.1	0.1	0.7	0.6
3.7	0.4	0.11	3.6	15.7	1.0	3.9	4.5	2.6	2.7	0.5	2.1	1.8
3.0	0.4	0.03	2.4	13.5	0.9	1.4	6.3	2.6	3.9	0.3	2.2	0.8
17.1	3.7	0.05	21.5	16.4	1.9	7.6	12.6	15.0	51.1	2.2	11.4	1.2
1.3	0.2	0.03	1.5	14.6	0.5	1.0	3.3	0.5	1.0	0.1	1.2	0.6
1.3	0.2	0.04	1.4	14.2	0.5	0.6	2.7	0.5	0.9	0.1	1.2	0.6
1.2	0.2	0.05	1.5	16.0	0.2	0.3	1.9	0.4	0.4	0.1	1.2	1.1
1.3	0.2	0.06	1.7	17.9	0.3	0.7	2.1	0.5	0.5	0.1	1.3	0.7
1.6	0.2	0.13	5.8	15.7	0.3	1.1	3.2	1.8	1.0	0.2	1.5	1.0
1.8	0.2	0.10	6.4	17.7	0.4	1.3	4.0	1.8	1.2	0.2	1.7	1.1
1.8	0.3	0.05	6.4	18.2	0.4	1.3	3.7	1.6	1.3	0.2	1.8	1.0
1.8	0.3	0.09	6.6	18.6	0.4	1.5	3.9	2.2	1.5	0.2	1.8	1.3
2.3	0.3	0.10	7.3	13.3	0.6	1.6	4.0	2.4	2.7	0.2	2.1	1.3
2.3	0.3	0.15	7.3	12.1	0.6	1.7	4.5	2.5	2.6	0.2	2.1	1.5
2.2	0.3	0.12	6.8	14.2	0.6	1.7	3.8	1.8	1.9	0.2	1.9	1.0
2.2	0.4	0.08	6.7	17.2	0.8	1.5	4.2	2.1	2.5	0.3	2.0	0.8
1.8	0.2	0.07	5.9	11.1	0.4	1.4	2.6	1.8	1.8	0.2	1.6	0.6
1.7	0.2	0.07	5.8	11.1	0.4	1.3	2.7	1.6	1.0	0.2	1.6	0.5
1.7	0.2	0.08	5.6	10.4	0.4	1.5	2.8	1.5	1.2	0.2	1.6	0.7

Ga ppm	Ge ppm	Hg ppm	Li ppm	Mn ppm	Mo ppm	Nb ppm	Ni ppm	Pb ppm	Rb ppm	Sb ppm	Sc ppm	Se ppm
1.9	0.2	0.12	5.6	10.5	0.4	2.0	2.9	1.9	1.9	0.5	1.6	0.6
3.2	0.2	0.72	8.6	44.1	0.6	1.8	6.0	3.9	14.0	0.2	2.5	0.5
3.4	0.2	0.07	9.4	59.3	0.6	1.8	12.3	4.6	16.7	0.2	2.8	0.4
2.9	0.2	0.07	8.1	53.0	1.1	1.5	5.6	3.6	13.4	0.2	2.3	0.2
2.9	0.3	0.05	7.4	36.0	1.1	1.5	4.3	3.6	12.6	0.2	2.2	0.4
1.7	0.3	0.05	4.0	14.9	0.4	1.7	5.5	3.2	1.5	0.2	1.2	<0.2
1.6	0.3	0.06	3.9	20.2	0.4	1.7	5.5	3.1	2.2	0.1	1.2	0.3
1.9	0.3	0.12	4.5	22.8	0.4	1.7	5.4	2.9	3.4	0.2	1.4	<0.2
1.9	0.2	0.05	4.8	28.6	0.3	1.7	4.7	2.7	4.4	0.1	1.4	0.2
2.3	0.5	0.36	5.7	30.6	2.0	1.1	11.1	2.2	2.7	0.5	2.6	1.6
2.7	0.5	0.13	6.7	26.1	2.4	1.1	15.3	3.0	4.5	0.7	2.7	2.3
1.6	0.3	0.13	4.4	16.1	1.8	0.7	24.1	1.7	1.5	0.3	1.7	<0.2
2.5	0.4	0.15	6.0	26.6	2.0	1.0	11.7	2.6	4.1	0.6	2.6	1.7
1.7	0.2	0.17	5.0	13.1	0.5	1.2	3.8	1.1	0.9	0.2	1.7	1.1
1.8	0.2	0.06	5.7	13.4	0.5	1.4	4.0	1.5	1.0	0.2	1.7	0.4
1.4	0.2	0.09	4.5	10.2	0.4	1.2	2.9	1.2	0.7	0.1	1.3	0.7
1.6	0.2	0.08	4.7	12.6	0.4	1.3	3.5	1.1	0.9	0.2	1.5	0.3
1.8	0.2	0.07	5.6	11.1	0.4	1.3	2.8	1.8	1.4	0.2	1.6	0.4
3.1	0.4	0.06	8.3	40.3	1.5	1.6	5.4	4.9	13.1	0.2	2.4	0.6
2.3	0.2	0.16	6.7	20.2	0.5	1.4	1.7	2.2	2.2	0.3	2.0	6.1
2.3	0.2	0.16	6.6	19.4	0.5	1.3	2.0	2.1	2.5	0.2	1.9	1.2
2.4	0.2	0.13	7.2	21.3	0.5	1.5	2.5	2.0	1.9	0.2	2.0	5.2
2.5	0.3	0.16	8.6	22.4	0.5	1.5	3.0	2.1	1.9	0.3	2.1	1.9
2.1	0.4	0.16	7.5	20.2	0.5	1.3	3.4	1.8	1.1	0.2	1.8	1.7
2.3	0.2	0.13	8.2	21.1	0.5	1.3	3.0	2.2	1.1	0.2	1.8	1.5
2.1	0.2	0.13	7.2	19.2	0.4	1.2	2.4	1.5	1.1	0.2	1.7	1.7
2.3	0.1	0.18	7.5	21.6	0.5	1.4	2.6	1.4	1.0	0.2	1.9	1.3
2.4	0.3	0.21	7.9	28.2	0.5	1.3	3.1	12.3	1.4	0.3	2.0	1.4

Ga ppm	Ge ppm	Hg ppm	Li ppm	Mn ppm	Mo ppm	Nb ppm	Ni ppm	Pb ppm	Rb ppm	Sb ppm	Sc ppm	Se ppm
1.8	0.3	0.24	8.1	22.8	0.6	1.2	3.0	1.4	1.3	0.3	2.0	1.4
1.9	0.3	0.14	7.8	23.6	0.5	1.2	2.8	12.6	1.2	0.3	2.0	1.1
1.8	0.1	0.11	7.2	21.7	0.5	1.2	2.6	1.5	0.7	0.2	1.8	1.2
1.8	0.2	0.11	6.8	20.9	0.4	1.1	2.7	1.2	0.7	0.2	1.7	1.3
2.0	0.3	0.13	7.2	22.3	0.5	1.3	2.7	2.0	0.7	0.2	1.8	1.1
1.9	0.3	0.12	6.4	22.0	0.6	3.2	3.0	1.7	0.8	1.4	1.8	1.8
2.1	0.2	0.13	7.4	19.7	0.4	1.2	2.8	1.9	1.0	0.2	1.8	1.5
2.1	0.4	0.14	7.2	21.8	0.4	1.4	3.1	2.5	1.1	0.2	1.8	1.5
2.1	0.2	0.19	7.4	21.4	0.5	1.2	3.6	2.7	0.9	0.2	1.8	1.4
2.1	0.2	0.14	7.7	21.1	0.4	1.3	2.9	1.4	1.1	0.2	1.8	1.4
2.0	0.1	0.10	5.7	6.7	0.4	1.4	1.6	1.5	1.3	0.3	1.5	0.8
1.8	0.1	0.10	5.6	9.2	0.3	1.1	1.3	1.7	1.3	0.2	1.4	0.7
1.9	0.1	0.09	6.2	20.0	0.4	1.3	2.3	1.5	1.2	0.2	1.5	1.1
1.9	0.1	0.10	6.1	17.9	0.4	1.3	2.2	1.7	1.1	0.2	1.5	1.0
2.2	0.2	0.17	4.9	7.0	0.5	1.3	2.4	1.9	2.2	0.2	1.8	1.0
2.1	0.2	0.11	5.7	8.0	0.4	1.2	2.2	1.4	1.6	0.2	1.6	0.7
2.0	0.1	0.12	5.6	6.7	0.4	1.1	2.1	2.5	1.4	0.2	1.6	0.8
2.0	0.3	0.10	6.0	6.7	0.5	1.1	2.6	1.9	1.5	0.2	1.7	1.0
2.7	0.2	0.14	6.8	9.7	0.6	1.7	3.1	3.2	2.8	0.3	2.0	1.1
2.8	0.3	0.14	7.1	10.4	0.7	1.6	2.8	2.9	2.8	0.3	2.1	1.4
2.7	0.2	0.14	6.6	9.7	0.6	1.7	2.9	2.6	2.8	0.3	2.0	1.4
2.0	0.3	0.14	7.1	20.5	0.4	1.1	2.6	1.5	0.9	0.2	1.7	1.1
1.9	0.2	0.12	5.5	9.6	0.4	1.2	1.5	1.2	1.3	0.2	1.4	0.9
2.6	0.2	0.18	6.2	14.1	0.6	1.3	4.2	3.4	2.2	0.2	2.2	1.1
2.6	0.2	0.09	6.1	13.7	0.6	1.3	3.9	2.8	2.4	0.2	2.2	1.0
2.5	0.2	0.12	6.2	13.8	0.6	1.2	4.1	3.0	2.1	0.2	2.2	1.3
2.5	0.2	0.12	6.2	13.5	0.5	1.3	3.9	2.8	2.2	0.2	2.1	1.2
2.7	0.2	0.12	6.3	10.9	0.6	1.4	3.7	2.7	2.8	0.2	2.2	1.6

Ga ppm	Ge ppm	Hg ppm	Li ppm	Mn ppm	Mo ppm	Nb ppm	Ni ppm	Pb ppm	Rb ppm	Sb ppm	Sc ppm	Se ppm
2.8	0.2	0.10	6.1	11.5	0.7	1.4	4.2	3.2	2.3	0.2	2.2	1.3
2.7	0.2	0.12	6.2	12.2	0.6	1.5	3.7	2.7	2.4	0.2	2.1	1.8
2.7	0.2	0.10	6.2	12.0	0.6	1.2	3.5	3.2	2.3	0.2	2.1	0.9
2.6	0.2	0.10	6.2	11.8	0.6	1.3	3.9	3.6	2.4	0.2	2.1	1.3
2.3	0.2	0.08	7.1	41.2	0.5	1.2	3.5	2.3	1.1	0.2	2.0	0.9
2.3	0.2	0.17	6.9	40.5	0.5	1.2	3.7	2.2	1.2	0.2	1.9	0.9
2.2	0.2	0.09	7.1	40.7	0.5	1.2	3.5	2.3	1.1	0.2	1.9	1.1
2.3	0.2	0.11	7.2	40.6	0.4	1.1	3.2	2.2	1.4	0.2	1.8	1.2
2.5	0.2	0.12	7.3	32.0	0.5	1.2	3.3	2.6	1.3	0.2	2.0	1.3
2.4	0.4	0.06	6.3	8.6	0.4	1.1	3.6	2.6	2.7	1.3	1.5	0.6
2.0	0.2	0.04	5.4	6.9	0.4	1.0	3.2	1.7	1.6	0.1	1.3	0.4
2.0	0.2	0.05	5.6	6.4	0.5	1.3	3.1	1.9	1.7	0.2	1.5	0.3
1.9	0.2	0.04	5.4	8.4	0.4	1.2	3.0	1.8	1.6	0.1	1.4	0.3
2.1	0.3	0.04	4.7	7.3	0.4	1.2	3.3	1.8	1.7	0.2	1.3	0.4
2.4	0.3	0.07	6.1	7.9	0.5	1.3	3.3	1.8	2.0	0.2	1.5	0.3
2.2	0.2	0.04	4.1	13.0	0.5	1.6	5.1	3.7	2.6	0.2	1.7	0.3
2.1	0.2	0.05	3.7	9.7	0.5	1.5	5.2	3.4	2.3	0.2	1.6	nd
2.0	0.2	<0.03	3.6	17.5	0.5	1.7	4.7	3.3	1.9	0.2	1.5	0.4
2.0	0.2	0.03	3.6	9.8	0.5	1.5	4.5	3.4	1.9	0.2	1.5	0.3
2.1	0.2	0.03	3.8	11.5	0.5	1.6	5.1	3.3	2.1	0.1	1.6	0.0
2.2	0.2	0.03	4.0	11.9	0.5	1.6	5.3	3.5	2.8	0.2	1.6	0.3
3.1	0.5	0.13	7.1	14.9	1.6	1.4	11.5	3.7	5.2	0.4	2.8	1.8
2.9	0.4	0.16	6.5	13.1	1.4	1.0	11.6	3.2	4.3	0.4	2.6	2.6
2.0	0.2	0.13	5.7	9.3	0.5	1.1	3.8	1.7	1.1	0.1	1.7	0.7
2.0	0.2	0.11	5.5	9.5	0.5	1.2	3.8	1.8	0.8	0.1	1.7	0.8
2.2	0.2	0.20	7.1	40.5	0.5	1.2	3.7	2.2	1.1	0.2	1.9	1.2
2.7	0.3	0.10	6.1	11.3	0.7	1.2	4.0	2.8	2.4	0.3	2.1	1.5

Ga ppm	Ge ppm	Hg ppm	Li ppm	Mn ppm	Mo ppm	Nb ppm	Ni ppm	Pb ppm	Rb ppm	Sb ppm	Sc ppm	Se ppm
2.1	1.1	0.06	8.1	35.1	2.2	1.2	3.8	1.8	2.5	0.6	1.4	0.0
1.7	0.8	0.04	7.5	18.8	1.7	1.0	2.9	1.9	1.0	0.4	1.1	0.3
0.9	0.1	0.03	2.7	36.3	1.1	0.5	1.8	0.6	0.3	0.1	0.6	0.6
2.3	0.5	0.12	15.3	30.6	1.5	1.5	3.0	2.8	1.1	0.3	1.5	0.9
2.4	0.5	0.07	11.1	15.2	1.7	1.3	3.5	2.5	1.8	0.3	1.4	1.1
0.4	0.1	<0.03	2.0	13.7	0.2	0.3	1.0	0.3	0.2	0.1	0.3	0.5
1.5	0.2	<0.03	4.4	13.3	0.2	0.8	0.9	1.1	0.2	0.1	0.6	0.5
0.8	0.2	<0.03	3.9	14.7	0.2	0.5	1.0	0.8	0.2	0.1	0.4	0.5
0.6	0.2	<0.03	2.4	17.4	0.2	0.4	1.3	0.5	0.3	0.1	0.3	0.6
1.4	2.1	0.04	2.1	12.5	0.3	0.6	12.4	0.7	1.3	0.1	0.7	0.8
2.3	2.7	0.04	2.1	14.0	0.3	0.7	11.7	1.5	2.9	0.2	0.8	1.0
1.6	0.8	<0.03	3.2	106.0	0.4	0.7	0.7	2.9	0.9	0.1	1.4	1.5
2.1	0.5	0.19	2.7	360.0	0.6	0.8	3.8	2.9	3.3	0.1	1.5	1.4
7.3	1.4	0.56	6.9	178.0	0.5	3.2	<1.3	12.1	18.4	0.2	4.1	1.5
1.6	0.9	0.03	2.2	111.0	0.4	0.6	0.7	2.3	1.4	0.1	1.1	1.5
1.8	0.8	0.10	2.6	338.0	0.5	0.7	3.6	2.9	2.1	0.1	1.3	1.3
11.4	3.8	0.02	32.1	25.1	1.1	7.3	4.9	15.0	41.6	1.0	5.1	2.4
13.8	3.4	0.07	46.3	17.6	1.6	8.9	6.9	15.2	11.5	0.9	3.6	0.9
5.0	1.6	<0.03	12.5	7.1	0.8	4.2	1.0	10.0	1.3	0.4	2.7	3.0
3.0	2.0	0.03	10.1	3.2	0.3	2.1	3.7	5.7	1.5	0.3	1.5	1.8
2.0	1.5	0.02	9.0	1.8	0.2	1.0	2.1	2.7	0.1	0.1	1.0	1.1
2.7	3.9	0.12	10.3	1.8	0.5	1.8	2.9	5.7	1.2	0.3	1.6	3.1
3.0	0.6	<0.03	9.0	6.3	0.5	2.0	1.6	5.3	2.2	0.2	1.1	1.0
2.9	0.4	<0.03	9.9	3.7	0.4	1.4	<0.3	4.5	2.1	0.2	1.0	1.0
2.8	0.5	<0.03	5.7	12.8	0.6	2.1	1.3	5.0	2.5	0.2	1.1	0.6

Ga ppm	Ge ppm	Hg ppm	Li ppm	Mn ppm	Mo ppm	Nb ppm	Ni ppm	Pb ppm	Rb ppm	Sb ppm	Sc ppm	Se ppm
3.9	0.6	<0.03	9.5	9.8	0.6	2.3	2.6	6.9	8.5	0.2	1.4	0.7
4.3	2.1	0.03	11.4	32.7	0.6	3.4	2.1	8.3	8.4	0.3	1.8	1.2
3.7	4.6	0.09	7.1	8.9	0.8	1.8	0.8	6.1	5.8	0.7	1.5	1.0
1.3	0.2	0.12	3.5	32.0	0.3	0.7	<0.2	1.5	0.2	0.2	0.6	0.3
2.2	0.4	<0.03	4.9	12.3	0.5	1.2	4.5	3.3	5.1	0.4	2.1	0.2
5.1	1.0	0.02	9.8	20.0	0.7	3.7	1.1	13.0	5.2	0.4	2.3	1.1
3.6	0.9	0.02	7.5	19.6	0.6	3.0	<0.5	6.8	2.1	0.4	1.7	1.0
4.9	1.4	<0.03	14.0	4.7	0.9	2.7	5.0	7.5	3.2	0.5	2.0	1.6
1.4	0.4	<0.03	5.8	2.9	0.3	0.6	0.8	2.4	0.1	0.1	0.6	0.3
2.8	1.2	<0.03	7.0	3.4	0.6	1.4	3.8	4.3	0.6	0.4	1.3	0.4
3.3	2.8	<0.03	4.3	24.3	0.9	1.1	11.2	2.9	2.0	1.1	1.7	0.6
2.5	0.4	<0.03	9.8	20.9	0.6	1.7	0.4	3.1	1.6	0.3	1.2	0.7
1.8	0.4	<0.03	4.8	11.2	0.5	1.0	1.4	1.8	1.3	0.3	1.4	0.5
3.0	1.1	<0.03	9.4	12.6	0.4	1.9	1.4	3.6	6.2	0.6	1.9	0.6
2.3	0.5	<0.03	6.2	7.6	0.3	1.4	0.4	2.1	1.6	0.3	1.2	0.4
3.0	0.5	<0.03	6.7	5.2	0.5	1.4	1.4	4.7	1.3	0.2	0.9	0.9
2.8	0.4	0.08	6.0	4.4	0.5	1.3	1.2	4.0	1.2	0.2	0.9	1.9
8.9	5.1	0.10	33.8	49.7	0.9	5.4	14.9	13.9	6.9	1.2	4.7	2.2
2.9	1.2	<0.03	11.0	4.8	0.3	1.8	2.1	3.9	2.7	0.3	1.1	0.7
2.5	1.0	<0.03	7.0	6.1	0.4	1.2	3.7	3.9	4.1	0.4	1.3	1.0
3.9	0.5	0.04	10.2	3.9	0.5	1.8	1.3	5.7	1.3	0.2	1.4	1.1
2.6	0.9	0.03	6.2	8.9	0.5	1.4	0.5	4.8	2.3	0.3	1.0	1.7
7.2	1.6	0.02	23.5	6.6	1.1	4.0	3.2	11.2	3.2	0.5	3.3	0.6
1.8	0.4	<0.03	5.1	10.7	0.2	1.1	0.4	2.9	4.6	0.1	0.8	1.1
3.2	0.8	<0.03	12.1	6.6	0.4	2.1	1.1	5.4	4.7	0.2	1.5	1.1
1.6	0.2	0.05	5.0	4.3	0.3	0.7	1.2	2.5	1.8	0.2	0.8	1.1
1.6	0.3	0.08	5.0	4.1	0.4	0.8	1.1	2.6	1.4	0.2	0.7	1.3
2.9	0.4	0.05	7.8	45.1	0.3	1.7	3.7	4.7	5.3	0.2	1.6	1.4

Ga ppm	Ge ppm	Hg ppm	Li ppm	Mn ppm	Mo ppm	Nb ppm	Ni ppm	Pb ppm	Rb ppm	Sb ppm	Sc ppm	Se ppm
2.5	0.5	0.05	6.2	8.2	0.3	1.7	1.6	4.1	4.9	0.2	1.4	1.5
1.9	0.5	0.03	5.5	6.4	0.4	1.8	2.0	2.8	1.2	0.2	1.4	2.1
0.3	0.1	<0.03	1.1	3.1	0.1	0.2	0.4	0.4	0.1	0.0	0.2	0.5
0.8	0.2	<0.03	2.6	3.7	0.1	0.4	0.7	1.0	0.2	0.1	0.5	0.3
0.6	0.1	0.03	2.4	13.6	0.1	0.4	0.8	0.7	0.4	0.1	0.5	0.6
0.9	0.3	<0.03	3.1	6.3	0.2	0.5	1.4	0.9	1.0	0.2	0.7	0.6
0.3	0.3	<0.03	0.9	9.4	0.2	0.1	1.3	0.3	1.0	0.1	0.3	0.4
0.6	0.1	<0.03	2.5	5.6	0.2	0.4	1.0	0.5	0.3	0.1	0.4	0.4
0.5	0.1	<0.03	2.1	4.7	0.1	0.3	1.6	0.4	0.2	0.0	0.5	0.4
0.4	0.1	<0.03	1.4	15.6	0.1	0.3	1.0	0.4	1.1	0.1	0.8	0.4
0.9	0.1	<0.03	3.6	11.2	0.3	0.5	1.3	1.1	0.7	0.2	0.7	0.5
1.8	0.4	0.04	4.9	9.2	0.8	0.8	3.7	2.3	5.2	0.2	2.0	1.8
2.2	0.5	0.03	7.6	10.4	0.9	1.1	3.4	2.3	4.4	0.2	2.9	1.9
1.6	0.3	0.08	4.2	3.8	0.3	0.7	0.9	2.4	1.5	0.2	0.7	1.1
1.3	11.1	0.07	3.5	300.0	1.4	0.5	2.6	7.2	3.5	0.8	1.3	1.1
0.9	0.2	0.72	2.2	96.2	0.8	0.4	7.2	1.1	4.2	0.1	0.7	<0.2
1.2	0.3	0.03	4.8	300.0	0.6	0.5	9.3	2.1	5.0	0.1	1.2	0.6
1.8	18.2	0.11	4.7	34.1	3.5	0.4	3.8	20.7	3.0	0.2	1.3	2.5
3.0	23.8	0.02	7.7	74.2	0.3	1.2	47.3	3.7	10.8	7.2	2.3	0.3
5.2	45.9	0.12	13.6	78.5	1.6	3.0	34.1	282.0	20.7	7.9	4.2	1.9

Ga ppm	Ge ppm	Hg ppm	Li ppm	Mn ppm	Mo ppm	Nb ppm	Ni ppm	Pb ppm	Rb ppm	Sb ppm	Sc ppm	Se ppm
6.2	15.7	0.02	53.7	23.5	3.0	3.4	34.7	17.9	17.9	5.0	4.4	1.4
4.3	12.8	0.33	8.6	122.0	13.0	2.0	59.1	387.0	20.4	4.3	3.7	12.0
2.8	28.1	0.14	4.8	10.2	0.8	2.0	28.8	44.6	10.1	1.8	2.2	1.1
2.8	25.1	0.11	6.4	8.3	0.9	2.0	27.6	>63.4	10.8	2.1	2.0	1.4
3.3	31.7	0.14	3.7	6.0	1.0	1.9	28.9	34.0	9.7	2.2	2.2	1.1
3.5	9.2	0.22	13.8	14.0	15.3	2.9	26.7	>87.3	15.1	0.4	2.9	3.0
3.6	11.1	0.14	12.5	14.5	13.4	3.3	31.6	>87.4	16.0	0.3	2.9	3.3
3.9	12.0	0.19	14.8	40.7	8.1	2.9	28.8	57.2	15.7	0.5	3.5	2.0
2.5	4.5	0.13	12.8	73.1	1.6	2.4	17.2	29.5	10.3	0.4	2.5	2.1
3.8	10.9	0.16	6.3	97.1	14.0	3.5	19.9	23.4	17.6	1.2	3.8	2.1
9.6	46.9	0.13	25.8	72.7	18.8	9.4	105.0	171.0	32.8	14.5	9.6	5.7
3.3	5.7	0.10	7.0	36.3	9.3	2.1	9.2	4.5	15.6	0.8	3.0	1.7
2.1	11.5	0.50	9.8	68.8	11.3	1.6	14.1	24.6	11.1	2.0	2.3	2.9
3.7	10.1	0.11	8.8	27.1	20.8	3.2	14.1	12.0	25.5	4.3	2.9	4.6
5.4	13.7	0.10	17.5	36.2	2.4	3.7	27.4	8.5	24.9	1.2	5.9	5.7
5.1	26.9	0.14	15.4	318.0	46.5	4.9	39.1	48.9	18.8	7.3	6.1	12.0
2.6	10.5	0.06	3.7	45.8	4.6	1.2	8.2	86.6	10.3	<0.3	2.0	2.0
2.2	4.4	0.12	10.0	84.8	4.7	1.6	6.1	7.2	10.8	<0.3	1.9	3.0
7.9	34.2	0.25	8.5	61.9	2.1	4.3	36.3	448.0	36.3	1.0	6.6	1.4
2.6	15.4	0.18	2.3	27.2	1.0	<0.73	52.5	109.0	0.6	1.7	1.5	5.2
7.5	27.8	0.14	27.8	45.3	1.8	2.9	39.5	146.0	21.9	1.4	5.4	9.2
4.7	19.5	0.09	12.6	55.2	2.2	3.5	12.6	5.2	24.1	0.3	4.3	1.1
3.2	2.5	0.12	6.6	24.0	8.9	1.9	11.5	4.4	12.5	0.6	2.4	1.2
2.7	11.6	0.42	8.3	114.0	20.7	2.1	12.0	8.3	16.0	2.5	2.9	4.4
4.0	12.3	0.07	7.4	48.9	14.3	3.6	9.2	3.6	32.6	2.2	3.6	2.9
7.4	14.9	0.36	17.9	34.2	7.4	3.0	52.1	113.0	14.4	0.9	7.0	2.5
6.0	23.7	0.23	11.3	13.5	1.1	4.5	56.4	29.3	16.9	1.5	5.4	2.6
3.5	6.0	<0.03	11.7	5.3	2.8	2.2	11.0	6.3	13.2	0.5	2.5	2.1

Ga ppm	Ge ppm	Hg ppm	Li ppm	Mn ppm	Mo ppm	Nb ppm	Ni ppm	Pb ppm	Rb ppm	Sb ppm	Sc ppm	Se ppm
3.2	1.5	0.08	10.6	48.2	4.6	2.7	5.6	2.7	13.4	<0.3	4.3	2.5
5.8	49.1	0.16	12.7	200.0	11.6	5.5	23.6	127.0	14.7	3.3	7.5	3.7
4.7	29.2	0.02	2.0	4.8	0.2	0.4	83.2	4.6	1.1	3.4	2.9	1.2
4.1	8.1	0.19	7.2	34.8	0.2	1.1	39.4	14.1	5.7	1.7	2.2	2.4
6.2	12.9	0.03	8.9	38.7	0.3	1.7	66.9	26.8	5.5	2.1	6.3	3.6
4.5	11.7	0.14	2.8	11.0	0.3	0.6	92.8	30.2	4.2	1.5	2.7	5.7
4.3	5.0	0.12	5.0	6.0	0.5	1.0	66.4	28.7	8.7	1.2	2.0	6.8
3.1	5.0	0.10	3.8	2.4	0.3	0.6	45.3	17.3	1.1	1.0	2.3	4.2
5.6	9.4	0.14	7.0	5.8	0.5	1.2	83.5	55.3	3.0	2.0	6.1	6.4
6.9	43.1	0.07	2.8	11.7	0.2	0.8	107.0	17.1	4.6	4.9	3.2	1.3
4.0	10.2	0.02	7.5	12.7	0.2	1.5	52.7	17.7	10.8	1.5	2.5	2.7
3.6	17.0	0.30	3.6	8.3	0.2	0.5	53.7	19.4	2.6	1.9	1.6	4.2
4.4	12.3	0.04	7.7	7.4	0.2	1.0	78.4	28.8	1.8	1.6	6.2	5.0
4.4	9.6	0.12	6.0	11.1	0.9	1.1	40.2	41.3	4.5	1.5	2.0	5.6
9.2	4.8	0.11	75.9	12.9	1.6	4.9	30.2	44.8	16.2	1.0	10.2	11.0
8.2	11.2	0.43	31.1	36.2	2.3	1.6	83.8	45.9	12.2	2.5	10.9	31.0
2.7	8.0	0.13	5.4	25.2	1.0	0.6	6.3	27.4	3.1	0.2	1.4	3.7
3.0	8.7	0.11	4.6	21.8	0.9	0.7	5.7	24.8	2.9	0.1	1.4	3.5
1.4	7.2	0.18	4.0	12.5	0.9	0.3	8.7	45.2	0.5	0.1	0.5	2.5
1.4	10.2	0.11	2.7	11.2	0.6	0.3	8.2	23.2	0.3	0.1	0.7	2.6
6.2	21.0	0.09	18.8	15.7	1.0	1.6	29.5	15.4	11.9	1.2	4.4	2.9
6.8	27.7	0.09	20.6	15.5	1.0	1.8	31.7	13.8	13.4	1.3	4.8	2.7
5.1	13.3	0.33	8.8	19.5	1.5	0.5	31.1	56.2	2.5	0.7	5.2	6.2
4.4	11.9	0.16	7.4	10.1	1.2	0.4	29.7	22.0	2.0	0.6	5.2	3.8
1.5	13.4	0.28	3.0	13.0	0.8	0.2	9.8	46.9	1.3	0.1	1.0	2.9
1.4	15.2	0.18	2.2	7.3	0.7	0.2	8.9	33.9	1.2	0.1	1.0	2.3
3.4	42.8	0.74	3.2	7.8	1.1	0.3	14.4	36.4	3.6	0.8	3.4	3.4
3.7	37.5	0.11	2.7	6.5	1.1	0.4	13.7	31.1	4.0	0.8	3.4	2.1

Ga ppm	Ge ppm	Hg ppm	Li ppm	Mn ppm	Mo ppm	Nb ppm	Ni ppm	Pb ppm	Rb ppm	Sb ppm	Sc ppm	Se ppm
4.2	18.2	0.08	3.1	17.9	0.4	0.6	11.6	15.5	6.5	5.3	1.9	1.3
4.6	22.9	0.07	2.0	7.9	0.4	0.7	11.2	10.7	7.2	6.0	1.9	1.1
5.0	9.4	0.05	8.6	20.1	0.5	2.2	17.6	16.2	25.5	2.0	2.7	0.5
5.3	9.4	0.04	7.7	16.3	0.5	2.3	16.7	23.2	27.7	2.0	2.7	0.5
5.9	10.3	0.05	10.2	22.1	0.6	2.3	31.2	31.2	30.8	2.7	3.5	0.7
5.0	8.9	0.39	10.1	21.6	0.5	1.9	29.3	18.9	26.7	2.2	3.5	0.8
6.0	22.6	0.12	7.1	14.1	1.1	1.6	46.7	5.8	17.9	4.7	4.7	0.4
6.7	26.8	0.04	5.3	12.6	1.1	1.7	42.8	6.7	18.7	5.4	4.3	0.4
2.9	3.8	0.09	3.9	2.2	0.3	0.5	40.8	15.3	1.1	0.9	2.2	4.7
3.1	12.1	0.11	4.9	21.9	0.9	0.8	5.9	24.0	3.1	0.1	1.5	3.5
3.7	30.6	0.12	2.9	6.5	1.1	0.4	13.4	32.0	4.0	0.7	3.3	2.2
3.0	17.3	0.06	3.8	17.0	0.4	0.8	13.5	9.7	8.6	1.5	2.2	0.8
3.0	19.0	0.06	2.9	10.1	0.3	0.8	12.8	10.0	9.3	1.4	2.1	0.8
4.3	7.4	0.04	12.3	27.7	0.9	2.1	20.8	12.3	27.5	0.8	3.6	1.2
4.1	7.4	0.05	11.6	21.0	0.6	2.1	22.1	14.2	25.0	0.7	3.5	0.9
5.5	17.9	0.05	8.4	14.3	1.5	1.4	63.6	16.9	19.1	3.1	5.2	0.8
5.6	17.7	0.04	6.8	12.2	1.4	1.3	69.5	13.6	18.3	3.2	5.4	1.0
4.1	18.3	0.50	6.7	36.0	3.6	1.5	77.5	87.6	10.1	3.4	3.5	6.3
3.6	24.2	0.31	3.4	20.0	2.2	1.0	51.1	63.4	3.4	3.3	2.6	4.0
3.0	19.2	0.15	4.1	19.3	2.6	0.7	33.2	39.2	7.2	3.2	1.9	2.8
2.8	19.8	0.17	3.3	10.3	2.3	0.6	33.2	33.1	5.8	2.9	1.8	2.3
4.1	24.5	0.08	8.4	64.8	2.5	2.1	60.7	13.2	25.7	4.0	4.9	3.0
3.4	27.8	0.09	7.4	32.4	2.3	1.9	65.3	11.5	21.3	4.1	4.6	2.4
6.7	41.7	0.04	10.4	59.7	1.8	7.1	68.9	27.2	35.5	5.2	7.5	1.4
4.0	34.7	0.04	4.2	17.4	1.7	5.9	62.0	21.9	17.6	4.8	5.0	1.2
4.1	19.7	0.03	9.6	21.5	4.2	3.0	37.5	15.1	23.8	3.1	4.2	1.3
5.5	29.4	<0.03	10.1	15.8	3.1	3.8	40.4	16.2	32.5	3.9	4.5	1.9
2.9	15.4	0.03	7.1	27.6	3.2	1.1	37.3	10.9	12.2	4.4	4.4	0.7

Ga ppm	Ge ppm	Hg ppm	Li ppm	Mn ppm	Mo ppm	Nb ppm	Ni ppm	Pb ppm	Rb ppm	Sb ppm	Sc ppm	Se ppm
2.8	17.9	0.02	6.5	9.2	3.9	1.1	36.5	4.6	11.9	4.4	3.9	0.7
2.8	14.4	<0.03	5.6	89.1	2.1	1.1	16.5	10.7	15.1	1.0	2.3	0.5
2.4	12.0	0.04	5.1	40.3	1.6	1.0	15.9	4.0	13.8	0.9	2.1	0.4
9.2	17.5	0.03	30.2	259.0	2.5	4.2	32.6	29.7	68.1	2.0	8.0	1.2
4.2	23.9	0.02	8.9	19.6	2.3	2.2	30.2	10.2	24.8	2.4	3.5	0.7
1.4	8.4	0.06	2.8	12.4	1.4	0.3	7.9	13.4	0.9	0.3	1.0	2.5
1.2	8.3	0.04	1.9	2.6	1.0	0.2	7.1	9.7	0.4	0.2	0.7	1.6
1.6	14.0	0.04	2.3	25.0	1.6	0.2	13.5	10.2	0.6	0.6	0.8	1.2
1.3	17.0	0.02	1.1	1.1	1.1	0.2	11.7	7.2	0.4	0.5	0.6	1.9
4.1	19.1	0.05	6.4	28.5	2.0	1.0	13.4	14.4	11.3	1.9	2.6	2.5
4.2	22.5	0.05	4.5	3.2	1.6	1.0	14.1	16.1	10.1	2.0	2.4	2.6
2.0	14.3	0.21	6.7	8.4	0.8	0.8	31.7	53.9	3.6	1.2	1.9	5.6
2.2	17.2	0.11	5.4	5.4	0.7	0.9	21.9	47.0	2.6	1.2	1.8	5.3
1.6	21.2	0.08	2.9	15.2	0.5	0.2	23.9	16.7	0.1	0.6	1.0	4.5
1.9	26.7	0.07	2.9	6.8	0.5	0.2	26.3	16.7	0.2	0.7	1.1	3.6
3.0	17.0	0.05	10.9	9.1	0.4	0.5	50.2	43.3	0.9	1.4	4.3	6.4
3.3	19.6	0.04	10.4	3.4	0.3	0.5	52.5	20.6	0.8	1.6	4.3	4.0
4.8	31.9	0.06	20.6	10.1	0.6	1.3	75.5	24.0	7.6	3.6	8.9	5.2
4.4	26.2	0.06	21.7	7.6	0.6	1.3	69.5	20.2	7.8	3.2	8.7	4.3
1.9	15.0	0.13	5.6	5.7	0.6	0.7	21.8	43.0	2.2	1.1	1.8	5.3
3.5	5.1	0.05	11.3	30.5	0.9	1.7	19.4	14.6	22.0	0.7	3.4	1.4
2.9	21.1	0.19	3.7	11.6	2.4	0.7	32.8	37.8	6.2	3.1	1.7	2.6
4.1	11.2	0.03	3.1	6.1	0.2	0.9	88.9	20.6	6.9	1.9	1.9	2.7
4.1	12.1	0.36	2.7	3.4	0.2	0.9	85.9	13.3	6.8	2.0	2.2	2.3
4.0	12.1	<0.03	6.1	2.5	0.2	0.8	79.2	29.6	1.8	1.6	2.3	2.7
3.1	9.5	<0.03	5.1	1.4	0.1	0.6	61.9	17.4	1.6	1.2	1.7	5.2
5.0	12.2	0.14	7.6	3.4	0.2	1.4	96.7	45.7	1.6	2.1	7.8	6.4
4.4	10.0	0.07	7.3	2.7	0.2	1.4	79.2	26.5	1.6	1.9	7.2	4.0

Ga ppm	Ge ppm	Hg ppm	Li ppm	Mn ppm	Mo ppm	Nb ppm	Ni ppm	Pb ppm	Rb ppm	Sb ppm	Sc ppm	Se ppm
5.1	33.8	0.13	3.8	10.3	1.3	0.6	72.2	31.0	4.1	1.8	4.0	11.0
5.3	42.7	0.09	2.8	7.2	1.0	0.6	74.1	11.5	3.2	1.8	2.9	4.9
3.1	5.8	0.02	18.9	2.9	0.6	1.4	24.5	14.6	4.8	0.4	3.3	4.2
3.2	5.4	<0.03	20.7	2.7	0.5	1.4	23.2	7.7	4.8	0.4	3.1	3.6
4.0	11.5	0.53	6.8	3.7	1.0	0.8	22.8	26.0	3.9	0.5	2.3	6.5
4.1	11.6	0.14	7.3	2.8	0.8	0.8	22.4	9.0	4.0	0.5	3.7	3.1
5.7	16.8	0.25	11.3	3.5	0.9	1.1	52.2	58.5	5.1	0.9	8.1	17.0
5.5	14.6	0.21	10.7	2.6	0.7	1.1	47.7	19.3	4.9	0.7	7.1	11.0
3.4	3.1	0.06	13.5	73.5	7.3	1.4	20.3	4.6	19.6	0.9	4.3	3.9
3.0	3.4	0.06	11.5	73.9	7.6	1.2	16.0	4.7	16.3	1.0	3.9	4.7
2.9	3.8	0.07	9.8	59.6	6.6	1.2	15.3	4.9	14.8	1.0	3.5	4.0
2.8	2.9	0.06	9.5	72.4	6.8	1.2	23.0	4.0	16.3	1.2	3.5	6.3
3.0	2.7	0.08	11.1	71.9	6.2	1.3	15.6	4.0	17.2	1.1	3.8	4.3
4.4	21.3	<0.03	8.9	41.6	4.0	2.0	53.1	10.6	19.1	4.3	4.0	0.6
4.4	19.4	<0.03	9.5	38.7	4.0	3.5	49.8	7.5	18.8	4.9	4.2	0.6
4.6	21.4	<0.03	9.6	45.3	4.6	2.1	36.3	7.3	20.5	4.5	5.0	0.8
2.2	3.8	0.13	6.4	82.3	5.5	1.0	8.8	2.5	13.7	3.1	2.4	4.9
2.6	3.5	0.07	4.8	33.7	5.5	1.3	7.9	3.1	16.5	3.3	2.3	4.6
3.3	1.0	0.03	9.0	75.5	2.6	1.8	8.1	4.0	17.0	1.6	4.2	2.5
3.0	0.5	0.06	6.3	37.0	2.6	1.5	7.7	3.5	12.6	1.8	3.2	2.6
1.9	0.2	0.18	7.6	50.7	3.9	0.8	8.1	3.6	6.3	1.7	3.5	4.1
2.1	0.2	0.09	5.3	24.0	2.8	1.0	8.0	3.4	5.7	1.3	3.7	2.6
2.5	0.4	0.25	7.8	31.7	7.6	1.1	21.4	5.4	13.2	3.7	3.5	5.4
2.4	0.4	0.03	5.2	12.2	5.8	1.3	21.2	3.3	10.9	0.6	2.7	2.7
4.0	2.8	0.04	9.6	26.7	7.2	2.1	20.9	4.1	25.0	0.6	5.0	2.6
3.5	1.4	0.03	7.1	16.5	6.6	2.1	19.9	3.5	20.1	0.4	2.9	2.5
4.6	10.9	<0.03	5.8	2.3	0.2	0.8	79.4	24.1	1.9	1.7	2.2	2.9
1.8	0.2	0.19	8.0	49.2	3.6	0.7	7.4	3.6	6.1	1.5	3.3	3.6

Ga ppm	Ge ppm	Hg ppm	Li ppm	Mn ppm	Mo ppm	Nb ppm	Ni ppm	Pb ppm	Rb ppm	Sb ppm	Sc ppm	Se ppm
23.7	156.0	0.21	70.7	488.0	30.0	12.5	205.0	49.1	137.0	32.2	25.3	40.0
18.8	107.0	0.21	65.9	659.0	26.0	10.6	161.0	37.9	122.0	25.9	21.5	24.0
23.9	145.0	0.21	68.4	733.0	32.8	12.6	196.0	49.9	137.0	32.1	24.7	13.0
31.7	226.0	0.25	77.0	295.0	37.9	21.3	267.0	69.6	165.0	47.9	29.1	10.0
26.2	185.0	0.09	67.6	295.0	31.7	13.5	230.0	54.9	143.0	35.4	25.7	6.9
28.2	200.0	0.20	69.9	286.0	32.5	13.9	238.0	59.2	149.0	38.2	26.5	7.3
14.5	72.2	0.24	61.8	826.0	18.7	7.7	116.0	24.0	99.5	17.4	18.0	7.0
25.4	159.0	0.21	68.1	458.0	29.0	12.3	206.0	54.3	142.0	33.2	24.4	6.1
31.5	211.0	<0.03	92.9	459.0	38.5	17.4	291.0	100.0	173.0	41.7	34.0	3.0
18.4	26.2	0.03	74.9	510.0	51.6	9.1	100.0	32.1	126.0	8.0	17.5	5.3
14.2	18.7	0.03	76.1	503.0	40.1	8.1	98.3	24.4	113.0	6.0	16.5	5.1
19.8	18.3	0.03	72.1	446.0	48.3	9.6	87.8	30.3	135.0	10.2	18.1	7.4
0.2	0.2	0.05	42.8	7.8	1.3	0.1	<3.2	<0.4	1.3	0.1	<3.2	0.8
18.4	100.0	0.19	67.6	959.0	25.9	9.4	150.0	38.7	125.0	24.5	22.1	8.3
4.0	45.4	0.42	2.6	1.8	4.2	0.4	100.0	26.9	1.0	2.9	3.4	3.6
3.2	18.2	<0.03	2.0	1.2	2.7	0.4	78.7	1.4	0.8	1.9	2.9	1.0
3.9	15.2	0.09	2.6	2.0	5.5	0.5	63.1	16.9	2.0	1.9	1.7	2.2
3.5	14.8	<0.03	2.8	1.8	4.3	0.5	56.3	3.6	1.9	1.6	1.6	1.3
4.0	8.2	0.05	7.7	3.9	3.7	1.2	52.3	21.5	8.0	1.1	3.4	4.1
3.5	7.8	0.03	7.1	2.3	3.1	1.1	46.6	7.6	6.4	0.9	3.3	2.7
4.5	7.7	0.33	7.7	4.3	8.5	0.6	65.5	24.2	1.3	1.3	6.9	3.5
5.0	9.8	0.05	7.5	3.2	3.8	1.1	68.0	14.2	1.6	1.1	8.3	3.1
3.0	16.4	0.13	2.1	3.4	0.2	0.2	27.7	7.1	0.6	0.3	1.5	1.8
3.1	16.6	0.07	1.8	3.5	0.2	0.3	27.9	5.7	0.6	0.3	1.6	1.6
3.4	26.1	0.16	2.8	7.2	0.5	0.4	70.7	19.1	1.5	0.8	2.0	3.0
2.9	13.8	0.10	2.3	6.6	0.5	0.4	58.6	6.5	1.4	0.6	1.8	1.7
5.5	23.9	0.26	4.0	11.6	0.7	0.7	91.6	11.3	3.7	1.7	5.7	3.0
4.3	19.9	0.09	3.7	12.2	0.6	0.7	89.8	8.4	4.1	1.6	5.9	1.4

Ga ppm	Ge ppm	Hg ppm	Li ppm	Mn ppm	Mo ppm	Nb ppm	Ni ppm	Pb ppm	Rb ppm	Sb ppm	Sc ppm	Se ppm
3.7	24.3	0.26	2.5	1.8	3.7	0.4	94.8	21.5	1.0	2.7	3.3	6.3
8.5	23.3	0.07	51.7	9.3	3.3	2.8	47.8	24.8	23.9	5.9	11.5	2.7
7.2	23.7	0.07	41.9	7.8	2.8	2.3	40.0	22.3	20.5	5.0	9.9	2.2
6.0	22.3	0.06	29.8	6.8	3.5	2.1	39.9	22.9	14.0	3.7	5.4	1.5
5.0	17.7	0.04	27.5	4.8	2.3	1.7	35.4	15.7	11.7	3.1	5.3	1.6
4.8	21.7	0.07	18.0	8.4	2.1	1.6	69.9	11.7	15.3	3.1	5.5	1.1
4.7	23.7	0.06	16.1	7.3	2.1	1.5	61.3	11.6	13.5	3.1	5.2	1.3
7.1	22.1	0.07	65.7	9.7	3.3	2.6	47.0	28.4	21.5	4.1	8.8	2.1
6.2	16.1	0.08	43.5	7.5	3.0	2.2	45.4	25.8	18.6	4.0	7.3	2.4
4.3	33.0	0.08	10.7	23.0	1.6	2.8	13.9	4.4	25.4	0.2	3.6	1.4
3.4	25.4	0.05	7.6	12.3	1.1	2.4	11.8	3.3	19.1	0.2	2.9	1.5
1.8	5.4	0.04	4.9	11.8	1.0	0.9	8.5	2.0	12.2	0.2	1.4	1.8
1.8	6.9	0.04	4.2	8.4	1.0	1.0	7.8	2.0	13.2	0.1	1.4	2.1
2.1	1.0	0.12	11.0	14.7	6.4	1.1	9.8	3.1	15.4	0.2	2.2	3.1
1.7	1.0	0.06	6.2	12.0	3.4	0.9	10.5	2.3	8.1	0.2	2.1	3.1
3.0	4.1	0.05	6.5	23.9	9.6	1.6	9.4	3.1	24.9	0.8	2.6	4.0
2.5	3.3	0.04	5.3	16.9	7.8	1.5	9.0	2.8	21.7	0.7	2.3	3.3
5.8	19.5	0.08	42.5	7.3	2.9	2.0	43.0	22.4	17.7	3.6	7.2	2.7
2.9	4.2	0.06	6.9	24.7	9.2	1.5	9.4	3.2	24.2	0.8	2.6	3.1
2.9	17.9	0.24	7.7	12.0	0.6	1.9	12.1	43.4	7.1	1.4	1.6	1.7
3.3	24.8	0.22	6.4	8.5	0.8	3.8	17.6	54.4	7.4	1.9	2.2	1.7
1.0	1.6	0.17	2.9	7.5	0.3	0.5	3.8	5.0	2.4	0.1	0.7	1.6
0.9	1.7	0.14	2.4	4.2	0.4	0.5	4.1	5.7	2.1	0.1	0.8	1.4
1.7	3.1	0.08	4.3	4.6	0.4	0.9	8.1	4.7	7.6	0.1	1.3	0.9
1.8	2.6	0.07	4.1	4.5	0.4	0.8	7.5	4.4	7.8	0.1	1.2	0.8
2.6	25.5	0.05	5.6	7.8	1.6	1.4	44.0	6.1	9.1	1.5	1.8	0.6
2.9	30.0	0.05	6.3	8.2	2.1	1.5	54.6	6.3	10.8	2.0	2.3	0.7
7.5	55.4	nd	15.4	66.9	10.9	3.3	56.7	15.2	34.6	11.4	5.9	nd

Ga ppm	Ge ppm	Hg ppm	Li ppm	Mn ppm	Mo ppm	Nb ppm	Ni ppm	Pb ppm	Rb ppm	Sb ppm	Sc ppm	Se ppm
4.7	13.2	0.05	13.7	47.2	2.0	1.7	20.3	7.7	32.9	4.1	3.4	0.7
4.5	16.9	0.05	13.6	33.6	4.1	1.7	18.6	12.1	27.9	4.1	2.7	4.3
10.2	7.6	0.04	161.0	18.0	1.0	5.3	17.1	19.9	32.9	0.5	9.2	5.1
6.9	53.6	0.07	36.2	10.2	1.3	1.6	47.3	11.4	5.6	1.7	4.4	6.3
5.2	24.8	0.06	9.2	7.5	1.0	0.8	56.6	6.6	4.3	2.6	6.3	5.7
5.4	37.9	0.11	11.8	9.3	1.1	1.3	87.5	13.0	6.7	3.8	9.5	3.8
5.6	70.7	0.03	2.4	8.0	0.4	0.5	84.3	19.3	2.0	5.5	3.7	2.2
5.3	45.3	0.03	3.8	2.8	0.4	0.8	61.8	8.1	7.3	5.2	3.0	1.6
5.1	35.8	0.02	8.2	6.5	0.5	1.3	59.3	10.6	11.1	4.8	4.0	6.5
4.4	30.7	0.17	17.0	3.2	0.6	1.3	64.5	41.6	5.3	4.6	9.0	5.8
4.8	21.0	0.09	12.2	42.8	2.9	1.5	23.1	35.5	13.9	0.4	3.2	6.7
3.9	6.9	0.06	19.1	8.9	0.5	2.5	10.1	8.2	9.4	0.2	3.5	6.9
9.0	2.3	0.08	92.7	9.5	1.6	4.8	38.5	33.8	14.0	1.0	29.1	12.0
5.9	13.9	0.09	19.8	9.7	0.7	1.6	58.1	25.7	3.8	1.3	13.4	6.6
2.5	34.3	0.05	5.2	18.0	21.8	1.3	13.1	3.9	23.3	4.9	2.7	2.9
2.6	37.4	0.05	4.9	15.9	22.2	1.4	12.9	4.3	23.4	5.3	2.3	2.9
2.0	4.8	0.07	8.0	13.3	6.4	0.9	11.0	2.4	14.6	0.4	2.5	3.1
1.9	5.5	0.07	6.6	12.4	6.7	0.9	11.4	2.4	11.8	0.5	2.4	3.1
2.3	12.1	0.09	7.4	38.6	2.7	0.8	7.9	2.9	14.7	0.3	1.7	2.0
2.1	11.3	0.07	4.6	14.8	1.7	0.9	7.7	2.5	12.8	0.2	1.7	2.3
3.7	29.3	0.07	8.5	18.1	0.8	1.3	7.1	4.9	18.1	0.2	2.7	1.4
3.6	28.8	0.07	7.6	16.0	0.9	1.3	7.4	4.8	18.1	0.2	2.5	1.1
4.4	5.4	0.03	4.3	2.1	6.6	1.0	11.3	4.1	7.3	2.3	3.7	3.5
4.4	5.5	0.03	4.3	2.0	6.0	1.0	9.2	3.9	7.8	2.2	3.4	3.4
4.7	6.3	0.06	11.4	4.9	3.0	1.4	17.5	6.6	4.8	1.4	5.2	3.8
4.2	5.4	0.05	9.4	3.4	2.6	1.5	16.8	5.6	4.2	1.3	4.4	4.1
8.7	7.4	0.24	33.3	27.9	3.7	2.9	31.6	41.8	34.7	3.1	6.9	7.6

Ga ppm	Ge ppm	Hg ppm	Li ppm	Mn ppm	Mo ppm	Nb ppm	Ni ppm	Pb ppm	Rb ppm	Sb ppm	Sc ppm	Se ppm
7.4	28.1	0.08	23.7	21.7	0.9	2.4	96.7	42.2	28.1	4.5	8.6	2.0
17.1	2.6	0.19	57.6	36.4	38.4	7.4	77.8	23.8	115.0	2.7	13.4	12.0
6.1	2.7	0.22	47.8	27.6	22.6	3.1	81.3	23.4	27.2	3.1	9.9	9.5
3.5	12.3	0.19	11.5	37.9	1.3	0.9	21.1	71.2	9.5	0.8	2.2	2.2
2.6	2.0	0.16	10.3	22.6	4.3	1.4	15.8	6.0	2.2	0.8	4.3	7.4
2.3	2.8	0.11	10.8	43.0	2.8	1.1	5.3	3.0	12.3	0.1	2.0	2.5
1.8	2.5	0.09	5.8	12.0	1.8	0.9	4.4	2.4	9.3	0.1	1.4	2.1
3.8	11.7	0.05	10.1	27.3	1.8	1.6	4.9	5.7	17.3	0.1	2.6	2.0
3.1	9.2	0.05	7.0	13.4	1.2	1.3	4.8	5.7	15.9	0.1	2.5	2.0
6.7	26.2	0.07	12.4	25.7	2.4	1.5	16.1	17.2	14.9	0.3	10.3	2.6
5.9	25.3	0.06	9.5	11.0	1.9	1.4	17.3	12.0	13.8	0.3	9.4	2.5
3.2	8.8	0.43	13.4	31.4	2.0	1.1	23.1	51.4	19.5	0.3	1.5	1.3
4.1	15.4	0.20	8.6	21.1	0.8	1.5	24.6	46.8	24.4	0.2	2.8	1.3
4.3	23.1	0.08	5.0	27.6	1.0	0.9	38.2	44.8	12.2	0.8	3.0	1.2
3.4	18.4	0.10	4.5	15.6	0.8	0.9	38.2	30.8	10.7	0.6	2.8	1.2
6.8	27.1	0.07	23.3	27.1	0.7	2.3	99.1	39.3	25.9	4.4	9.4	1.7
6.3	8.1	0.07	16.1	17.6	2.3	2.5	30.3	17.8	19.2	2.1	6.3	4.1
5.8	16.2	0.22	17.5	20.0	0.6	1.9	67.5	15.5	15.1	3.0	6.2	1.8
5.5	14.8	0.19	17.4	12.8	0.8	2.0	64.5	14.3	13.8	2.7	5.7	1.6
3.1	1.7	0.18	28.5	59.0	4.6	2.3	17.9	5.8	6.6	0.7	4.7	6.7
3.2	12.4	0.13	7.8	13.1	0.9	1.0	16.6	34.0	9.3	0.7	2.0	1.7
3.1	17.8	0.16	19.2	26.3	1.0	0.7	22.9	22.2	5.5	0.8	2.8	2.2
2.8	16.5	0.12	16.7	14.5	0.8	0.6	20.8	21.0	5.0	0.7	2.5	2.0
3.7	26.2	0.11	9.4	30.2	1.5	1.7	55.9	15.5	11.5	2.0	5.3	2.3
3.3	25.2	0.09	6.7	15.5	1.4	1.7	50.7	16.1	10.6	1.8	4.4	2.4
6.3	83.6	0.09	7.6	41.2	1.2	3.2	32.7	35.1	14.8	9.0	8.4	2.3
6.0	88.3	0.10	6.2	22.1	1.3	2.9	31.4	38.1	12.9	8.4	7.6	2.5
2.6	11.6	0.12	6.5	24.1	2.5	1.1	8.9	5.6	11.2	0.4	2.2	1.6

Ga ppm	Ge ppm	Hg ppm	Li ppm	Mn ppm	Mo ppm	Nb ppm	Ni ppm	Pb ppm	Rb ppm	Sb ppm	Sc ppm	Se ppm
4.5	14.1	0.16	15.0	53.4	2.6	1.9	9.7	10.4	30.0	0.2	5.3	1.8
18.9	3.8	0.06	98.2	2809.0	2.8	8.7	51.2	25.8	125.2	1.0	21.2	1.7
1.6	6.5	0.24	6.5	29.7	18.5	1.2	8.5	3.1	6.3	6.7	1.5	7.0
1.3	0.5	0.12	6.9	201.4	2.6	0.6	3.1	3.9	7.0	0.3	1.0	2.1
2.5	14.3	0.34	11.6	56.5	4.5	1.4	21.6	62.8	14.8	0.9	2.6	1.5
16.0	1.8	0.21	41.6	250.2	471.9	7.3	282.7	36.3	162.3	25.2	16.1	54.0
4.7	8.5	0.15	16.0	47.5	3.4	2.0	13.8	6.0	29.5	0.2	6.2	2.4
2.8	3.3	0.22	16.4	285.3	4.6	1.1	11.5	17.3	8.1	0.6	4.1	3.5
1.9	0.2	0.10	19.9	18.7	1.4	1.0	8.0	3.4	7.1	0.3	2.1	1.9
3.1	14.0	0.06	14.8	35.3	5.0	1.5	29.7	17.9	12.4	1.5	3.7	2.0
2.8	5.5	0.07	9.8	25.2	9.3	1.7	5.1	7.2	13.1	1.2	2.7	2.4
1.6	1.5	0.19	7.7	51.9	1.5	0.9	9.5	11.5	9.3	0.3	1.5	1.9
3.2	21.3	0.13	11.2	55.7	2.3	1.4	20.3	22.5	13.1	0.5	3.0	1.4
16.2	2.5	0.31	47.6	336.2	310.5	7.2	182.8	30.7	163.0	17.7	15.0	44.3
4.7	22.1	0.12	13.2	46.6	8.0	1.6	12.6	25.9	17.5	0.4	3.3	2.1
18.6	2.4	0.20	54.3	642.1	114.5	8.0	122.3	67.0	172.0	5.7	15.2	28.3
15.6	1.5	0.35	43.6	293.2	268.3	6.5	265.1	74.9	153.8	28.1	15.4	54.6
15.5	13.5	0.33	35.5	227.3	468.5	7.0	241.6	52.1	145.0	27.7	14.1	53.9
3.0	8.1	0.05	9.8	27.9	6.1	1.9	5.6	16.3	17.1	3.2	2.8	2.1
1.5	1.4	0.14	7.7	41.5	2.7	0.9	4.1	11.8	10.0	0.7	1.3	1.1
2.6	19.5	0.23	9.2	49.3	1.6	1.3	14.8	46.0	14.0	0.6	2.8	0.9
15.2	2.2	0.21	41.7	361.8	377.7	7.1	250.4	36.9	167.7	23.6	14.7	53.1
11.5	38.7	0.21	10.0	143.9	100.6	3.1	63.3	85.7	40.8	11.9	7.7	24.4
21.4	2.2	0.32	67.5	232.9	387.2	10.0	182.8	67.7	216.9	18.7	18.0	38.7
2.3	7.3	0.08	11.9	29.6	22.3	1.5	7.8	44.1	11.3	1.8	2.5	5.9
1.8	1.6	0.09	4.3	19.1	2.9	0.9	3.6	34.5	11.9	0.2	1.7	0.5
6.6	6.0	0.06	18.3	40.5	2.1	2.9	11.1	10.8	23.7	0.2	6.1	1.0
3.7	23.0	0.10	8.8	31.8	12.3	2.1	17.5	10.5	18.8	0.6	3.1	2.5

Ga ppm	Ge ppm	Hg ppm	Li ppm	Mn ppm	Mo ppm	Nb ppm	Ni ppm	Pb ppm	Rb ppm	Sb ppm	Sc ppm	Se ppm
3.3	1.3	0.03	6.2	5.4	0.8	1.5	6.6	4.1	4.0	0.2	2.3	4.0
3.0	1.0	0.67	17.0	159.3	15.1	1.1	22.7	22.0	6.7	1.0	<1.4	26.3
4.3	1.7	0.09	7.9	5.6	1.0	2.0	7.3	5.4	5.1	0.3	2.8	4.3
1.9	0.7	0.18	3.7	2.9	0.3	0.9	3.8	2.2	2.6	0.1	1.3	3.7
4.1	2.0	0.12	7.8	7.3	0.7	1.7	8.5	5.1	4.7	0.3	2.9	4.1
2.9	1.0	0.12	6.6	5.4	0.6	1.5	5.7	4.7	3.4	0.2	2.0	4.5
1.8	0.6	0.08	4.2	3.6	0.4	0.9	3.5	2.6	1.8	0.1	1.4	3.8
3.3	1.0	0.36	6.7	11.6	0.7	1.7	5.1	4.9	4.3	0.2	2.2	3.5
2.3	0.9	0.52	4.8	7.5	0.7	1.0	5.7	3.4	3.6	0.2	1.7	6.7
5.4	3.2	0.26	5.6	8.2	0.8	1.4	10.5	5.6	11.6	0.4	2.7	10.3
0.6	0.1	0.03	2.6	1.9	0.4	0.2	2.2	1.1	0.5	0.1	0.5	4.9
0.8	0.3	0.02	2.9	2.0	0.3	0.4	3.3	1.5	0.6	0.0	0.8	1.5
1.2	0.3	0.03	4.9	1.6	0.3	0.8	4.6	2.6	0.7	0.1	1.4	3.0
3.3	0.5	0.10	7.6	2.5	0.5	2.3	6.7	6.2	3.7	0.1	4.0	4.3
5.3	1.7	2.71	5.2	4.4	0.4	2.7	5.2	5.8	6.1	0.2	2.7	3.3
2.8	1.0	0.36	16.6	151.4	7.0	1.2	21.3	21.6	6.5	0.9	<1.4	28.1
2.1	0.8	0.34	4.1	5.9	0.5	0.9	5.0	3.1	3.2	0.2	1.6	6.2
41.0	25.0	1.00	118.0	137.0	5.0	31.7	103.0	28.1	85.5	3.0	43.7	2.5
37.4	17.3	0.22	110.0	100.2	7.5	26.4	95.7	52.5	71.2	2.0	39.7	2.2
39.5	18.0	0.18	107.7	109.5	11.7	28.4	97.1	56.1	75.1	2.9	41.5	19.0
37.4	17.1	0.40	105.5	93.8	8.7	27.2	91.3	54.0	72.1	2.3	39.2	19.7
35.2	15.9	0.23	106.8	98.9	7.9	26.1	96.3	53.8	70.2	2.0	39.5	22.8
36.4	16.7	0.18	108.4	99.5	7.6	27.6	96.0	49.7	75.9	2.0	39.4	13.7
33.8	14.7	0.12	107.1	99.1	7.1	25.8	96.4	45.5	71.5	1.9	38.8	15.0

Ga ppm	Ge ppm	Hg ppm	Li ppm	Mn ppm	Mo ppm	Nb ppm	Ni ppm	Pb ppm	Rb ppm	Sb ppm	Sc ppm	Se ppm
31.9	14.1	0.40	99.5	93.6	6.8	24.0	85.3	46.2	67.4	1.8	35.2	18.6
31.6	14.9	0.17	98.5	95.0	6.8	23.8	89.0	42.7	65.8	1.7	35.8	18.5
117.8	79.2	0.72	138.5	120.5	36.5	34.9	184.3	160.9	88.8	9.7	54.2	77.0
122.6	84.9	0.77	136.8	119.1	36.7	35.8	185.7	165.3	93.3	9.7	53.5	240.8
149.3	117.0	1.41	146.6	143.0	49.4	35.1	221.3	187.1	91.8	14.0	55.7	9.3
137.0	97.9	0.96	142.4	127.2	40.4	35.9	205.5	178.8	91.6	11.4	54.5	8.7
212.6	275.6	0.51	177.6	233.6	70.2	30.5	311.5	245.0	105.0	39.1	56.4	5.5
156.2	127.7	1.62	148.5	149.3	47.6	32.8	227.9	194.2	90.6	16.6	53.9	6.1
24.4	11.4	1.00	104.6	124.6	3.2	24.2	85.8	24.4	70.5	1.1	36.9	26.2
35.6	16.8	0.35	98.7	107.1	7.4	26.0	91.2	49.1	69.2	1.9	36.9	22.7
144.8	110.6	1.51	143.0	162.7	42.6	33.6	220.3	184.3	89.6	13.8	54.6	19.2
15.4	16.0	0.47	60.6	13.3	15.3	3.4	18.6	9.5	21.0	2.7	13.3	42.0
16.9	16.5	0.46	61.6	14.4	16.6	2.9	18.6	10.3	23.0	2.9	13.3	170.0
5.9	1.3	0.13	13.8	9.4	2.1	1.8	9.1	3.6	9.2	0.3	4.1	4.7
6.3	1.4	0.40	34.2	9.7	2.5	2.2	17.3	9.2	10.2	0.8	5.5	8.6
10.5	2.0	0.38	57.7	16.3	2.8	4.7	25.4	18.4	21.6	1.2	8.4	9.8
22.4	3.8	0.77	157.0	41.1	4.1	12.1	51.2	43.8	64.9	1.6	17.6	20.0
27.0	3.9	0.61	234.0	47.4	4.4	17.5	70.7	47.3	68.8	1.4	24.5	19.0
9.8	2.1	0.37	70.2	14.4	2.3	5.1	22.6	14.1	25.4	0.9	8.5	9.8
6.5	5.5	0.26	11.9	95.7	4.8	3.0	42.7	6.8	22.3	1.6	5.8	1.6
2.8	1.3	0.03	8.2	6.5	1.4	1.4	14.0	3.3	8.5	0.4	2.5	1.5
10.1	1.5	0.17	57.3	48.4	4.0	3.8	27.7	13.3	50.1	1.2	9.3	2.2
7.8	2.8	0.28	27.5	81.5	3.3	2.6	19.4	8.7	17.2	1.0	6.9	5.4
8.5	11.6	0.25	18.3	123.0	4.5	4.6	42.3	8.4	39.9	1.5	6.4	1.6
5.2	1.8	0.05	13.0	14.4	1.5	2.6	17.8	6.6	26.5	0.5	4.5	2.1
14.1	2.0	0.16	58.6	187.0	2.8	5.3	35.9	16.7	75.8	1.3	11.6	2.5
4.0	1.4	0.26	15.1	10.1	2.6	1.4	12.2	5.7	7.3	0.5	3.7	4.1
6.7	3.8	0.43	25.0	33.7	2.2	2.6	15.4	10.3	21.2	0.7	5.4	6.2

Ga ppm	Ge ppm	Hg ppm	Li ppm	Mn ppm	Mo ppm	Nb ppm	Ni ppm	Pb ppm	Rb ppm	Sb ppm	Sc ppm	Se ppm
8.4	3.5	0.28	45.4	15.7	2.2	3.6	20.4	13.6	20.4	1.1	7.1	7.3
17.9	3.7	0.54	110.0	179.0	7.3	7.0	53.2	32.3	116.0	1.2	13.8	6.9
14.0	9.9	0.18	66.4	72.8	3.9	5.8	51.4	18.5	60.0	2.1	14.8	2.8
6.3	2.9	0.45	19.4	28.0	2.3	2.6	13.9	6.1	18.0	0.7	5.8	4.5
7.3	3.4	0.19	23.6	15.1	2.3	3.6	18.4	11.1	33.4	1.2	7.9	3.6
2.5	0.2	0.22	12.4	1.6	0.3	1.1	2.9	2.5	2.2	0.2	2.1	2.9
6.4	7.1	0.23	24.3	13.7	2.5	2.0	13.4	11.8	14.8	0.9	5.8	4.3
8.5	7.3	0.29	34.9	42.7	3.4	3.1	20.3	18.9	20.9	1.3	6.6	4.4
19.1	11.4	0.31	117.0	129.0	3.4	6.9	48.9	42.6	101.0	1.9	18.5	6.1
10.5	4.3	0.23	60.0	138.0	2.0	3.1	22.8	14.8	48.8	0.6	10.1	5.2
8.7	21.6	0.29	17.7	34.9	2.7	1.4	19.2	6.9	9.2	2.8	6.0	4.4
4.4	1.4	0.22	11.6	10.5	1.2	1.2	11.5	4.7	11.1	0.7	3.7	1.9
9.6	4.1	0.14	43.9	32.6	1.5	4.0	23.5	13.6	42.7	1.1	8.0	2.2
9.9	3.6	0.12	51.7	40.2	1.5	3.7	23.1	14.0	40.6	1.0	8.3	2.4
3.8	2.8	0.11	12.7	12.5	1.1	1.4	13.3	5.0	10.0	0.7	4.0	1.9
21.0	3.3	0.24	129.0	193.0	2.3	9.6	44.6	36.1	104.0	1.5	18.5	4.4
5.4	1.1	0.13	36.5	7.8	3.2	1.5	9.3	9.8	4.6	1.4	4.4	4.2
2.1	5.8	0.02	6.8	6.6	1.2	0.8	12.7	2.9	3.9	0.5	1.5	1.4
5.6	1.9	0.51	21.8	7.9	2.4	1.4	13.6	4.7	7.5	0.8	1.3	1.8
4.6	3.1	0.09	12.3	7.4	1.8	1.6	20.2	6.3	8.2	0.7	11.1	3.6
2.1	1.8	0.01	8.6	13.7	0.6	0.6	12.2	3.6	3.4	0.4	2.7	1.2
4.3	3.2	0.10	26.2	21.1	2.8	1.3	13.4	6.6	11.1	2.3	3.4	2.6
4.6	1.8	0.05	15.7	7.9	1.2	0.4	13.7	6.9	7.6	0.4	4.4	5.1
2.8	10.8	0.02	1.8	2.3	0.4	1.0	9.1	2.0	0.8	1.2	1.8	2.8
2.5	1.6	0.23	8.3	18.8	2.7	0.8	11.2	3.8	5.2	1.0	0.9	2.8
5.2	3.2	0.03	5.7	4.4	2.3	0.7	9.9	4.9	1.5	1.0	6.7	1.4
5.2	3.2	0.09	27.4	34.5	0.8	2.1	10.6	6.3	23.8	0.2	3.4	2.7
6.0	1.5	0.07	20.9	4.2	1.2	2.4	10.1	9.4	6.8	0.5	4.3	7.8

Ga ppm	Ge ppm	Hg ppm	Li ppm	Mn ppm	Mo ppm	Nb ppm	Ni ppm	Pb ppm	Rb ppm	Sb ppm	Sc ppm	Se ppm
7.6	1.2	0.20	35.2	8.3	2.0	2.8	15.2	11.7	16.2	0.7	5.6	12.0
3.2	0.7	0.08	13.5	3.1	1.0	1.7	11.8	5.9	3.6	0.3	2.5	7.0
9.4	2.4	0.08	25.1	12.5	2.2	2.1	14.8	8.9	19.9	1.4	5.2	5.5
11.3	2.0	0.16	48.7	23.7	1.9	4.6	20.5	15.3	43.5	1.0	7.6	6.1
9.4	1.7	0.06	40.3	10.6	1.3	5.9	20.0	13.4	46.3	1.2	6.6	7.3
12.0	1.9	0.15	64.9	24.4	1.7	4.4	19.6	13.9	50.5	0.9	6.8	6.0
3.4	8.6	0.24	7.6	34.4	3.7	1.3	12.0	4.9	13.2	0.4	1.8	7.0
11.6	1.8	0.22	39.5	45.9	2.5	4.6	20.1	13.6	54.9	0.8	6.9	6.3
10.3	1.7	0.24	28.0	22.9	1.9	4.1	20.2	13.3	39.6	1.0	6.4	8.1
6.7	1.1	0.05	21.8	26.3	1.7	2.9	16.7	7.9	16.6	0.7	4.3	5.7
10.3	1.6	1.30	29.1	16.6	1.4	2.8	20.6	7.3	31.1	0.5	4.9	7.7
13.2	2.1	0.05	35.6	85.1	1.3	5.5	16.1	12.5	>61.4	0.8	6.5	5.1
3.1	0.6	0.02	13.6	3.9	0.6	2.4	14.3	5.6	0.6	0.2	1.9	5.6
14.6	2.2	0.09	118.0	22.6	1.5	7.8	18.0	17.2	55.5	1.0	10.3	7.2
4.7	1.0	0.09	20.5	5.6	2.1	1.4	12.9	4.2	5.7	0.8	4.2	8.4
4.9	0.5	0.06	19.8	2.3	1.0	3.1	13.6	9.6	4.7	0.5	4.4	5.4
6.3	1.3	0.04	27.2	3.2	1.0	2.8	17.9	11.3	7.2	0.7	4.7	5.0
10.7	7.1	0.16	23.5	5.7	0.5	2.6	18.5	9.2	5.9	0.8	5.7	5.3
7.9	4.3	0.25	24.0	32.2	1.9	4.7	27.3	12.3	11.6	1.3	6.3	8.0
5.3	5.4	0.02	13.8	6.1	1.9	1.3	22.5	11.8	14.5	2.0	4.5	3.9
10.0	1.5	0.17	31.9	248.0	1.6	5.7	19.5	12.6	41.8	0.8	7.1	6.3
13.7	2.6	0.05	36.0	150.0	1.3	6.2	19.0	18.2	77.2	1.0	10.3	5.8
3.5	0.5	0.14	11.0	3.1	1.2	1.9	9.9	5.5	4.0	0.3	2.8	5.7
5.7	1.9	0.02	27.4	9.2	0.9	3.5	18.1	10.9	6.3	0.8	4.7	6.4
5.2	2.0	0.10	7.7	7.5	2.3	1.3	17.4	7.2	5.1	1.7	4.1	2.9
4.7	1.9	0.11	11.6	3.2	1.7	1.1	14.6	5.1	6.1	0.9	2.7	6.0
8.4	1.2	0.05	34.6	14.3	1.3	4.3	14.4	12.0	35.2	0.6	5.7	7.2
12.0	4.1	0.13	66.8	18.4	1.9	6.0	36.7	17.3	53.3	1.3	9.6	9.7

Ga ppm	Ge ppm	Hg ppm	Li ppm	Mn ppm	Mo ppm	Nb ppm	Ni ppm	Pb ppm	Rb ppm	Sb ppm	Sc ppm	Se ppm
6.9	1.1	0.20	48.6	11.5	1.6	3.9	15.5	10.5	16.0	0.5	5.7	9.2
2.9	1.6	0.16	8.1	111.0	0.8	5.8	6.8	4.1	7.7	0.4	2.5	2.3
10.8	13.7	0.15	107.0	12.8	8.4	21.0	21.3	14.6	32.2	2.1	7.4	13.0
5.7	0.8	0.28	32.8	23.8	1.3	11.2	13.5	7.6	22.6	0.3	4.5	<0.2
4.5	0.5	0.25	54.1	23.6	1.2	29.8	9.9	23.3	2.8	0.4	9.2	21.0
11.1	2.5	0.04	53.5	8.7	1.6	24.0	23.2	21.4	31.2	1.0	9.1	15.0
6.7	1.3	0.06	38.3	7.1	1.5	16.4	16.4	12.2	7.5	0.7	5.2	9.4
3.0	0.7	0.02	9.4	5.1	0.7	6.5	8.6	4.8	5.9	0.3	2.8	4.3
3.7	2.7	0.17	20.2	17.8	1.0	6.5	7.1	7.5	7.2	0.7	3.2	6.4
9.7	1.2	0.18	25.4	39.4	1.7	11.7	25.0	12.1	43.0	1.3	6.2	2.1
8.2	1.4	0.07	21.7	6.9	1.7	18.0	15.5	11.6	17.5	0.8	7.1	8.7
7.7	1.1	0.04	25.3	4.3	1.5	13.4	13.9	13.2	9.7	0.5	5.3	6.4
8.9	3.7	0.05	85.2	19.3	1.0	17.0	19.2	11.1	35.0	0.8	6.8	3.8
5.6	0.7	0.12	22.0	21.4	0.9	12.5	13.3	7.5	25.9	0.3	4.2	2.4
4.7	1.5	0.30	25.2	43.5	0.5	10.9	9.1	6.0	13.4	0.3	4.2	7.1
4.5	1.6	0.19	22.5	14.4	1.1	9.3	9.4	5.8	15.5	0.3	3.3	4.9
4.4	2.4	0.28	24.5	11.9	1.0	9.1	9.5	5.0	13.9	0.4	3.1	3.4
1.9	0.9	0.23	3.5	17.9	1.0	3.6	3.9	1.9	4.3	0.1	1.8	1.5
15.8	5.9	0.10	152.0	32.2	2.1	33.0	19.1	16.4	57.9	1.0	11.1	14.0
4.5	19.0	0.10	10.5	5.2	11.9	7.5	24.8	4.4	5.5	4.4	2.2	1.9
7.9	6.7	0.73	27.7	70.0	5.0	15.9	27.5	10.2	24.6	1.0	5.1	1.9
5.9	1.4	0.29	29.5	30.3	2.1	15.9	14.0	9.2	26.0	0.6	4.9	2.0
4.7	1.6	0.39	20.9	29.0	1.7	6.2	17.5	6.4	13.6	0.6	3.4	2.8
3.9	2.7	0.16	19.5	17.6	1.1	7.1	6.2	7.8	7.8	0.7	3.0	5.7
8.2	1.6	0.07	30.0	7.5	2.2	14.8	21.7	11.1	17.1	0.7	6.6	5.5
1.6	0.2	0.02	10.9	1.9	0.7	4.1	11.7	4.1	0.9	0.2	1.5	4.7
5.9	3.4	0.08	13.2	10.7	2.6	6.5	14.4	6.2	17.7	1.4	4.7	6.1
7.7	2.8	0.08	42.7	9.3	2.4	19.5	16.9	10.0	29.0	1.0	5.9	9.1

Ga ppm	Ge ppm	Hg ppm	Li ppm	Mn ppm	Mo ppm	Nb ppm	Ni ppm	Pb ppm	Rb ppm	Sb ppm	Sc ppm	Se ppm
12.2	2.8	0.36	39.4	16.0	3.1	19.9	24.6	15.5	57.1	1.4	8.3	22.0
6.4	0.9	0.20	26.1	9.9	2.1	13.4	16.0	7.5	>30.0	0.7	4.9	13.0
3.2	0.7	0.06	7.6	2.4	1.0	6.0	18.1	4.3	4.1	0.5	2.7	4.3
1.3	0.2	<0.03	7.4	0.9	0.7	4.7	18.4	3.4	0.7	0.2	1.5	3.0
9.6	1.8	0.13	27.4	14.1	0.8	24.9	15.3	11.8	>49.9	0.5	7.7	7.4
10.1	1.8	0.06	43.1	20.2	1.0	25.1	17.7	13.1	36.3	0.6	7.1	9.2
9.9	1.3	0.04	36.5	10.4	1.6	21.3	11.3	13.3	25.7	0.7	6.4	6.3
11.1	2.8	0.06	71.4	12.2	1.5	23.6	19.3	13.3	38.4	1.0	7.8	7.3
4.6	0.6	0.07	19.5	4.0	1.3	14.1	11.9	8.7	20.8	0.6	4.7	6.0
3.6	0.4	0.27	15.7	2.5	3.3	7.6	9.8	6.2	11.0	1.5	2.5	5.3
3.9	0.5	0.18	15.8	3.4	1.6	11.1	9.8	5.0	10.2	0.6	3.2	3.9
4.2	0.6	0.10	12.8	3.3	2.7	6.8	16.7	6.0	14.5	1.5	3.6	5.3
4.0	0.5	0.11	26.3	2.1	2.3	12.5	18.9	9.2	3.4	0.7	4.0	6.4
6.7	1.2	0.14	26.5	3.5	2.8	11.5	19.6	11.1	14.1	1.4	4.1	7.9
1.5	0.2	0.20	6.3	0.9	2.0	3.3	9.7	3.4	1.2	0.6	1.2	6.8
2.6	0.8	<0.03	6.0	3.0	1.3	4.1	6.9	3.6	3.5	0.5	1.4	2.5
5.0	0.9	0.04	12.5	3.8	1.5	12.7	11.6	7.3	1.8	0.4	3.4	6.4
9.6	1.5	0.13	29.2	15.1	0.8	25.1	16.1	11.9	>50.4	0.5	7.4	8.7
5.5	1.1	0.09	23.2	6.5	1.5	2.9	13.8	12.2	11.1	0.7	4.6	6.4
8.5	2.4	0.05	43.6	9.7	1.4	5.0	12.8	16.2	13.5	0.9	7.2	7.2
5.9	1.0	0.13	24.3	4.3	2.1	3.5	9.9	9.9	10.8	0.7	4.1	8.4
13.8	1.8	0.20	39.1	14.2	1.8	6.6	22.7	21.2	51.7	0.9	8.6	8.4
7.7	1.3	0.09	33.4	61.9	1.5	3.9	14.5	13.6	18.5	0.8	6.2	7.0
9.3	3.5	0.03	23.9	4.6	1.2	3.1	16.8	10.2	10.9	1.5	6.0	4.6
7.9	1.7	0.20	30.8	24.1	2.3	3.1	18.6	10.9	17.3	1.1	6.1	8.4
10.1	1.3	0.08	52.9	26.1	1.6	4.9	19.0	14.0	50.2	0.8	7.8	6.3
9.2	1.5	0.05	58.5	14.9	1.8	3.2	16.4	14.0	24.1	1.0	6.7	4.9
11.3	2.5	0.20	46.2	21.0	1.4	4.9	17.3	16.9	32.0	1.0	7.6	8.2

Ga ppm	Ge ppm	Hg ppm	Li ppm	Mn ppm	Mo ppm	Nb ppm	Ni ppm	Pb ppm	Rb ppm	Sb ppm	Sc ppm	Se ppm
8.1	0.8	0.04	39.6	20.4	1.2	4.8	18.3	10.0	20.0	0.3	5.5	5.7
8.2	1.0	0.06	39.5	22.9	0.8	3.8	17.0	9.6	38.8	0.7	6.2	5.3
5.0	0.9	0.04	17.9	18.8	1.2	3.1	14.9	8.7	11.4	0.3	3.4	6.2
11.9	1.2	0.05	79.6	14.5	0.9	6.1	22.5	13.5	56.1	0.7	8.3	5.8
5.6	0.6	0.05	17.6	6.8	0.9	2.9	11.3	7.4	27.2	0.5	4.3	1.8
4.2	1.4	<0.03	8.1	2.9	1.3	1.2	18.5	4.7	4.5	0.8	2.7	7.9
9.4	1.1	0.25	20.9	25.1	2.6	3.0	26.8	15.1	51.5	1.5	6.6	7.1
8.2	1.0	0.12	19.3	13.2	1.5	4.4	16.8	13.8	39.2	0.9	6.2	7.3
3.4	1.0	0.02	7.6	4.0	0.9	1.8	12.1	5.7	1.8	0.5	2.0	5.3
5.6	1.0	0.09	17.5	20.1	1.9	2.2	13.1	6.5	29.3	0.8	4.3	4.5
3.2	1.0	0.04	14.9	6.7	1.0	1.8	11.6	6.5	8.2	0.4	2.6	2.4
4.9	1.3	0.02	9.7	4.9	1.5	1.5	14.6	6.0	10.9	0.8	3.0	4.5
13.6	1.9	0.04	37.2	32.1	0.9	5.6	34.0	17.6	>64.2	0.8	8.2	6.0
18.4	1.8	0.11	40.4	43.7	1.2	10.4	27.4	17.2	86.1	1.2	8.5	4.4
6.8	0.8	0.04	11.3	6.8	1.3	2.8	20.0	5.7	19.8	0.3	2.9	7.1
11.1	1.1	0.09	22.1	16.0	1.0	6.4	19.3	12.7	>63.7	0.6	7.0	8.6
13.9	3.5	0.05	60.7	54.1	2.8	6.6	31.2	16.6	39.4	1.4	8.0	6.2
6.6	1.1	0.23	20.3	23.6	1.6	3.3	15.9	9.4	13.7	0.6	4.1	8.8
8.2	2.6	0.35	30.2	18.9	1.5	7.3	22.7	19.6	7.7	0.9	6.9	9.0
9.3	2.3	1.10	67.5	47.8	2.2	5.3	13.9	12.8	24.6	0.6	6.6	5.7
5.6	0.7	0.05	13.8	7.2	1.0	3.4	14.7	7.5	27.8	0.5	3.8	7.3
8.2	1.1	0.11	14.6	13.5	1.5	4.2	18.5	13.2	37.5	0.8	5.3	7.3
7.4	6.4	0.15	17.9	11.3	1.5	1.9	28.7	9.0	14.3	3.1	3.9	4.0
6.7	1.4	0.12	31.1	16.5	1.8	2.2	12.5	7.8	15.5	1.3	5.3	7.7
5.7	1.5	0.23	9.0	15.0	1.2	0.7	6.4	6.2	2.1	0.4	1.4	3.4
7.5	3.6	<0.03	8.9	10.2	2.4	0.9	7.5	5.8	9.0	1.4	2.2	3.2
2.3	1.5	0.04	5.4	6.9	1.6	0.5	16.8	2.7	3.0	0.9	1.5	3.9
7.2	8.2	<0.03	21.6	7.1	4.4	1.5	32.1	6.7	19.8	3.8	4.3	4.0

Ga ppm	Ge ppm	Hg ppm	Li ppm	Mn ppm	Mo ppm	Nb ppm	Ni ppm	Pb ppm	Rb ppm	Sb ppm	Sc ppm	Se ppm
6.2	1.1	<0.03	22.7	5.8	1.9	2.3	17.7	7.2	9.3	1.0	4.0	4.7
11.1	4.5	0.14	48.2	42.3	5.5	3.4	30.2	21.2	53.6	4.8	9.2	2.2
6.2	3.6	0.04	16.0	29.7	2.8	1.7	16.3	10.5	23.2	2.0	4.6	4.2
9.7	5.5	0.30	25.9	49.5	4.3	2.6	25.4	16.3	38.3	3.1	7.5	4.2
7.9	2.2	0.03	19.9	8.8	1.3	2.5	18.5	16.7	6.6	1.4	9.9	4.9
7.6	0.9	0.02	45.4	24.7	1.0	2.9	16.7	10.5	32.3	0.7	5.9	5.3
14.1	6.9	0.02	157.0	12.4	2.2	8.4	23.2	33.0	21.9	2.2	23.7	7.0
6.0	4.1	0.28	16.8	13.1	0.5	2.1	5.0	6.2	13.5	0.6	3.8	3.2
9.5	3.6	0.20	25.5	27.7	2.4	2.1	14.7	10.7	30.6	1.8	5.4	3.5
15.7	1.6	0.13	67.7	56.0	3.8	4.9	20.9	20.2	23.6	1.3	11.3	15.0
8.2	1.2	0.55	20.2	25.7	2.5	2.9	12.5	8.4	10.1	1.2	6.5	23.0
14.5	12.5	0.52	21.4	29.1	3.1	4.6	36.7	18.6	17.2	2.0	15.1	23.0
4.1	2.9	0.12	16.1	18.7	0.9	1.6	6.4	3.8	9.7	0.3	4.5	3.4
9.7	2.2	0.04	27.2	12.5	1.4	5.0	15.4	12.9	56.1	0.8	7.5	8.2
5.6	4.3	0.16	26.3	34.4	3.3	2.4	13.3	6.6	19.1	0.7	4.4	4.2
4.3	5.3	0.04	13.8	13.5	0.8	2.5	10.5	4.2	15.5	0.6	3.3	2.3
3.0	1.8	0.09	12.9	29.7	0.5	1.3	5.2	3.5	7.3	0.3	2.3	2.0
2.0	3.9	0.07	8.4	28.2	0.6	0.8	3.9	2.5	5.0	0.1	1.4	0.5
11.3	1.7	0.65	36.8	37.0	2.7	5.2	19.4	9.8	14.8	1.8	6.3	19.0
15.2	2.6	0.67	66.0	8.9	4.1	5.6	43.2	29.1	27.8	1.4	12.3	22.0
9.1	2.1	<0.03	37.4	9.9	1.5	3.9	20.6	14.3	43.2	0.9	7.5	4.2
5.9	1.5	0.02	17.3	4.3	0.8	1.9	9.9	6.9	10.2	0.7	3.2	4.4
6.8	3.0	0.02	16.5	4.7	1.0	2.3	14.5	11.5	8.8	2.6	3.8	4.7
4.1	2.5	<0.03	8.9	78.1	0.5	1.5	15.3	6.1	3.3	1.1	1.9	3.4
6.2	3.1	0.26	31.3	21.7	1.4	2.1	31.6	6.7	33.8	1.1	4.9	2.0
4.3	1.6	<0.03	9.3	6.8	0.5	1.3	10.6	5.4	4.5	0.6	2.5	3.7
5.3	1.3	<0.03	22.3	3.4	1.4	2.4	15.2	8.3	5.1	0.5	4.3	5.9
2.8	2.6	0.24	13.8	19.1	0.7	1.3	6.6	3.7	5.4	0.2	2.1	1.6

Ga ppm	Ge ppm	Hg ppm	Li ppm	Mn ppm	Mo ppm	Nb ppm	Ni ppm	Pb ppm	Rb ppm	Sb ppm	Sc ppm	Se ppm
11.8	6.6	0.22	32.0	65.8	3.0	4.6	19.8	12.2	53.2	1.3	8.2	6.3
9.6	6.0	0.05	27.4	12.1	1.5	1.9	13.5	9.6	13.4	0.6	5.0	5.3
13.8	20.7	0.07	9.4	4.3	10.9	1.4	31.4	5.5	4.2	3.3	6.5	6.8
14.4	13.3	1.19	25.3	22.1	8.2	3.4	25.5	14.1	13.1	2.8	13.1	10.1
8.6	7.7	0.36	21.3	12.9	5.5	1.4	29.5	8.8	5.2	1.8	7.1	6.1
13.4	3.7	0.01	31.9	45.5	2.1	5.3	31.4	11.5	44.3	1.1	9.2	2.0
4.0	0.9	3.88	13.0	22.0	1.9	0.9	22.3	3.6	8.9	0.4	2.7	1.3
13.0	6.7	3.80	21.0	25.6	5.8	5.4	75.4	17.1	7.3	2.5	9.6	17.7
21.2	4.0	0.14	49.2	76.4	2.5	10.8	20.5	24.8	26.2	1.3	13.0	13.9
7.4	11.3	0.54	11.0	28.3	8.0	1.3	16.5	6.8	15.6	1.5	4.1	1.4
15.2	41.8	2.02	144.5	93.1	32.0	5.9	37.2	15.8	79.7	2.2	10.2	7.5
15.6	15.0	1.10	39.2	19.5	4.8	9.3	44.1	35.8	7.3	1.9	13.0	13.2
15.2	34.2	0.09	14.8	6.0	4.9	1.9	50.3	18.4	24.8	4.3	10.6	8.4
19.9	9.4	0.35	49.3	142.2	9.9	2.9	40.8	24.7	43.9	3.5	11.2	4.9
20.8	21.5	4.90	41.9	16.5	11.9	2.0	43.8	162.0	9.3	3.0	6.2	2.6
4.0	7.1	0.15	18.3	35.0	2.7	2.3	10.7	5.4	23.6	0.2	3.6	4.5
5.2	6.9	0.19	50.3	45.6	1.6	2.4	11.7	5.6	20.4	0.3	4.2	5.1
6.7	5.3	0.12	44.9	42.4	2.7	3.1	12.9	7.1	31.5	0.7	5.1	2.5
3.5	7.2	0.25	12.5	31.0	3.9	1.9	9.6	4.3	13.4	0.2	3.6	8.3
3.7	3.0	0.12	15.7	5.3	0.9	1.9	4.9	4.8	9.6	0.4	2.7	2.7
2.5	0.6	0.10	11.2	9.7	1.0	1.2	6.3	3.1	6.3	0.2	2.2	1.1
2.8	2.8	0.26	14.4	19.4	0.7	1.4	6.8	3.4	5.6	0.2	2.2	2.1
11.9	1.4	1.20	44.6	14.3	3.0	4.7	38.3	15.1	24.6	0.6	7.3	6.5
8.0	7.6	0.54	23.9	16.8	3.1	2.6	32.0	8.9	14.4	0.9	8.2	4.1
16.5	2.8	0.75	42.3	15.0	3.0	10.2	24.8	20.9	35.4	0.9	11.8	14.0
5.4	1.7	0.02	10.0	2.9	1.3	0.4	24.1	3.0	1.2	0.6	2.6	4.2
5.9	0.8	0.02	31.2	5.6	1.1	3.7	15.7	8.1	16.7	0.3	5.4	6.2
6.2	0.8	0.03	25.8	7.8	2.2	2.5	13.2	6.3	22.1	0.8	4.3	4.2

Ga ppm	Ge ppm	Hg ppm	Li ppm	Mn ppm	Mo ppm	Nb ppm	Ni ppm	Pb ppm	Rb ppm	Sb ppm	Sc ppm	Se ppm
3.5	0.6	0.19	7.3	3.1	1.9	1.4	17.5	3.9	1.2	0.8	2.7	3.8
2.8	0.6	0.03	4.9	2.3	3.2	0.6	10.9	3.3	3.9	0.7	2.5	3.4
10.7	2.0	0.03	34.0	22.9	1.0	6.1	14.3	11.8	88.5	0.5	8.9	5.9
5.9	3.7	0.04	15.5	8.1	2.4	2.4	16.0	6.3	31.8	2.0	5.4	3.5
16.0	1.9	0.03	35.7	47.2	0.7	8.8	16.5	14.7	128.2	0.6	12.4	8.8
2.5	0.6	0.03	9.0	1.9	1.2	0.6	14.5	4.0	4.0	0.4	2.0	3.5
6.9	3.2	0.02	19.6	4.5	1.0	2.8	17.1	9.2	11.1	1.0	5.5	5.5
4.9	1.0	0.25	9.5	11.6	1.8	1.4	20.4	6.4	12.8	0.6	3.2	8.6
8.9	2.7	0.02	12.7	14.9	1.3	2.0	25.5	7.0	9.9	1.0	3.9	4.9
4.5	1.4	0.02	15.8	5.7	1.2	1.4	14.4	5.5	13.1	0.4	3.0	4.9
3.4	1.6	0.01	8.7	12.0	1.7	0.7	17.6	4.3	5.3	0.5	2.5	4.4
20.4	13.5	2.09	92.7	15.1	8.7	8.6	32.5	25.5	30.8	3.6	9.8	11.3
9.2	8.8	1.04	22.8	115.4	13.6	2.8	52.2	11.2	25.4	2.8	6.5	6.8
23.2	22.8	1.67	44.3	12.4	8.7	6.5	40.1	18.9	22.5	2.9	11.5	14.5
9.3	3.9	0.53	32.0	12.9	4.4	2.5	14.4	8.7	20.3	1.3	5.9	4.7
10.4	5.4	0.46	16.2	15.2	3.4	3.1	41.1	14.2	20.3	2.0	8.2	6.3
16.0	1.8	0.03	36.6	47.4	0.7	8.5	16.1	15.4	124.6	0.6	12.3	8.6

Sn ppm	Sr ppm	Te ppm	Th ppm	Tl ppm	U ppm	V ppm	Y ppm	Zn ppm	Zr ppm
1.4	184	0.16	3.6	0.25	1.8	50.1	10.7	21.8	29.0
2.1	233	0.51	5.3	0.18	3.4	72.3	11.1	61.3	48.0
0.2	163	0.13	1.3	<0.01	0.4	11.5	2.6	3.4	17.1
0.2	159	0.12	1.2	<0.01	0.3	9.8	1.6	2.3	13.4
0.5	199	0.44	1.2	0.03	0.5	11.8	2.3	2.7	12.6
0.3	172	0.05	0.6	0.03	0.3	6.8	1.6	2.8	10.8
0.9	792	0.24	2.7	0.06	1.5	17.4	3.2	6.8	25.0
0.4	583	0.09	2.6	0.03	0.8	19.4	4.1	0.4	13.6
2.6	421	0.20	8.4	0.38	4.1	107.0	14.0	<1.8	63.5
0.3	287	0.09	1.3	0.05	0.4	10.1	2.5	3.8	11.1
<0.2	253	0.08	1.1	0.03	0.5	9.3	2.4	3.7	12.6
<0.2	166	0.13	0.9	0.01	0.3	9.8	2.2	1.4	13.1
0.2	183	0.12	1.3	0.01	0.4	10.1	2.3	1.8	14.9
0.6	247	0.11	1.7	0.10	0.5	14.0	3.5	6.8	18.1
0.4	270	0.13	2.0	0.05	0.6	15.9	3.9	8.1	18.8
0.6	279	0.12	1.9	0.03	0.6	16.7	4.2	8.3	19.5
0.5	284	0.13	2.0	0.04	0.6	15.8	4.2	7.7	17.9
0.5	289	0.11	2.4	0.06	0.8	21.9	4.1	12.5	18.9
0.4	280	0.14	2.6	0.07	0.8	21.3	4.1	12.4	20.0
2.4	275	0.11	2.4	0.05	0.8	19.1	4.0	9.4	21.9
1.0	279	0.13	2.3	0.05	0.8	20.0	4.2	12.6	20.3
0.5	250	0.12	1.8	0.03	0.6	15.8	3.0	6.6	19.5
0.4	254	0.12	1.8	0.02	0.5	15.2	3.0	6.3	16.5
0.4	253	0.12	2.1	0.02	0.6	14.9	3.1	6.3	17.2

Sn ppm	Sr ppm	Te ppm	Th ppm	Tl ppm	U ppm	V ppm	Y ppm	Zn ppm	Zr ppm
0.4	235	0.19	1.7	0.03	0.6	16.3	3.1	7.2	15.8
5.0	174	0.09	2.9	0.14	0.8	24.7	5.3	24.5	30.0
1.2	206	0.08	3.1	0.14	0.9	27.6	5.5	26.2	36.7
<0.5	198	0.09	2.8	0.15	0.8	22.7	4.9	23.4	27.9
<0.5	199	0.09	3.0	0.11	0.7	21.2	4.2	19.1	25.7
0.5	266	0.10	1.9	0.05	0.6	10.7	3.4	19.0	15.8
0.9	248	0.11	1.9	0.06	0.6	10.1	3.4	21.2	19.2
0.7	243	0.10	2.0	0.08	0.6	12.3	3.5	26.7	19.5
0.4	229	0.09	2.1	0.06	0.6	13.1	3.7	22.8	21.3
0.3	192	0.11	2.8	0.10	1.1	28.7	7.7	44.1	21.3
0.7	188	0.15	2.8	0.12	1.2	31.1	7.2	44.4	22.3
0.4	174	0.09	1.7	0.27	0.6	16.7	6.4	50.6	17.6
0.5	179	0.13	3.1	0.10	1.1	29.5	7.0	38.3	23.4
1.6	184	0.12	1.7	0.04	0.6	15.4	3.8	11.3	18.6
1.3	192	0.13	2.0	0.05	0.6	16.0	3.8	12.7	19.8
0.5	150	0.10	1.7	0.03	0.5	12.2	2.9	8.7	14.5
0.7	166	0.10	1.8	0.04	0.5	13.7	3.3	11.8	17.8
0.4	249	0.13	1.8	0.03	0.6	15.4	3.1	6.7	16.1
0.6	220	0.13	3.0	0.15	0.8	23.1	5.2	21.3	33.6
3.5	268	0.12	2.3	0.05	0.7	19.8	4.4	10.0	18.9
4.7	248	0.11	2.4	0.04	0.7	19.4	4.3	9.6	18.5
1.5	269	0.12	2.4	0.05	0.7	19.6	4.6	9.9	19.3
0.8	278	0.12	2.4	0.05	0.7	20.0	4.7	10.6	19.3
0.6	279	0.11	2.0	0.05	0.6	16.7	4.4	9.0	17.8
0.6	287	0.11	2.2	0.05	0.7	17.9	4.4	9.9	17.4
0.5	256	0.10	1.9	0.04	0.6	15.8	4.0	8.3	16.0
0.6	288	0.11	2.3	0.03	0.6	17.5	4.4	9.6	18.3
1.8	279	0.12	2.3	0.04	0.7	18.1	4.8	12.1	16.7

Sn ppm	Sr ppm	Te ppm	Th ppm	Tl ppm	U ppm	V ppm	Y ppm	Zn ppm	Zr ppm
0.8	278	0.15	2.5	0.04	0.8	18.7	4.9	10.0	18.2
1.6	280	0.13	2.5	0.03	0.7	18.8	4.8	10.1	18.8
2.2	276	0.11	2.0	0.03	0.7	16.4	4.4	8.2	17.8
0.8	266	0.11	2.1	0.03	0.6	15.8	4.2	8.4	17.1
1.0	282	0.11	2.0	0.03	0.7	16.1	4.4	8.2	15.5
2.0	274	0.44	2.1	0.03	0.6	16.6	4.4	9.5	16.7
7.3	278	0.11	1.9	0.03	0.7	16.8	4.3	8.8	16.3
1.0	279	0.11	2.0	0.04	0.7	17.7	4.6	10.1	17.1
1.6	282	0.11	2.0	0.04	0.7	17.1	4.5	8.4	16.9
0.7	280	0.11	2.4	0.04	0.7	17.3	4.4	10.7	17.3
0.7	241	0.10	1.9	0.02	0.6	15.2	3.4	7.7	15.3
2.3	234	0.09	1.7	0.02	0.6	14.0	3.1	7.4	13.8
0.8	251	0.10	1.9	0.02	0.6	15.0	3.8	10.6	15.1
0.5	256	0.09	1.9	0.02	0.6	14.5	3.8	9.3	15.4
0.7	241	0.10	2.4	0.04	0.7	17.4	4.0	10.7	16.8
0.7	245	0.09	1.9	0.03	0.6	15.8	3.7	7.7	16.4
0.6	238	0.10	2.2	0.03	0.6	15.5	3.6	9.3	15.5
0.5	251	0.09	2.1	0.04	0.7	16.7	4.1	8.7	17.0
0.8	267	0.11	2.3	0.06	0.9	21.5	4.2	18.0	18.7
0.8	277	0.12	2.6	0.07	0.9	22.3	4.0	16.6	18.8
1.2	273	0.11	2.5	0.07	0.9	21.3	4.1	10.2	21.0
0.5	266	0.11	2.1	0.03	0.6	15.5	4.2	8.7	18.8
0.7	238	0.09	2.0	0.02	0.6	14.5	3.2	7.2	16.4
0.4	316	0.10	2.5	0.05	0.8	19.6	4.7	16.1	19.7
0.4	295	0.10	2.6	0.05	0.7	19.6	4.3	11.0	19.3
0.4	305	0.10	2.7	0.05	0.7	19.5	4.5	11.0	17.7
0.4	294	0.09	2.4	0.05	0.7	19.1	4.3	11.5	18.2
0.4	302	0.09	2.4	0.05	0.7	19.4	4.1	12.3	19.7

Sn ppm	Sr ppm	Te ppm	Th ppm	Tl ppm	U ppm	V ppm	Y ppm	Zn ppm	Zr ppm
0.4	291	0.09	2.5	0.06	0.7	19.4	4.1	12.4	20.0
0.4	285	0.09	2.5	0.05	0.7	18.6	3.9	11.6	19.4
0.4	288	0.09	2.7	0.05	0.7	18.2	3.9	11.7	20.3
2.0	290	0.09	2.5	0.05	0.7	18.6	4.0	11.3	19.6
0.5	316	0.09	2.6	0.03	0.6	16.2	4.9	9.2	18.4
1.1	303	0.09	2.3	0.03	0.6	16.0	4.7	9.8	15.9
0.4	298	0.09	2.3	0.02	0.6	15.6	4.6	8.9	17.8
0.3	284	0.09	2.3	0.03	0.6	15.4	4.3	9.2	17.2
0.4	310	0.09	2.4	0.03	0.7	16.8	4.6	9.9	18.3
0.5	230	0.07	1.9	0.05	0.5	12.4	3.2	12.1	15.1
0.7	229	0.07	1.8	0.03	0.4	11.2	2.9	10.1	13.6
0.8	252	0.10	2.2	0.03	0.5	12.1	2.9	10.8	17.2
0.6	232	0.07	1.9	0.03	0.5	11.8	2.8	10.1	18.5
1.7	241	0.06	1.8	0.04	0.5	11.8	2.8	10.2	17.6
0.4	273	0.07	2.2	0.04	0.6	13.1	3.1	13.5	19.0
0.5	331	0.08	3.3	0.04	0.8	13.5	5.0	18.1	14.0
0.4	335	0.07	2.9	0.04	0.8	13.3	4.9	18.4	12.3
0.4	306	0.07	2.5	0.03	0.8	11.1	4.6	14.9	11.7
0.6	282	0.07	2.7	0.03	0.8	11.4	4.4	13.8	11.0
0.6	337	0.06	3.2	0.04	0.8	12.1	5.0	16.3	11.5
1.2	325	0.06	2.6	0.04	0.8	12.1	5.0	17.4	12.6
0.4	213	0.09	3.2	0.15	1.0	28.0	6.5	38.8	20.1
0.3	206	0.09	2.9	0.14	0.9	25.9	6.5	34.5	20.1
0.4	197	0.08	2.1	0.05	0.6	14.1	3.8	11.8	17.2
2.7	205	0.08	1.9	0.04	0.6	13.9	4.0	11.7	17.4
0.4	306	0.10	2.3	0.03	0.7	15.9	4.7	9.5	16.9
0.4	282	0.11	2.2	0.05	0.8	19.4	4.1	10.1	18.1

Sn ppm	Sr ppm	Te ppm	Th ppm	Tl ppm	U ppm	V ppm	Y ppm	Zn ppm	Zr ppm
0.8	149	0.09	2.2	0.22	0.9	9.3	4.0	8.8	27.6
1.5	195	0.07	1.7	0.16	0.7	7.4	3.0	6.5	24.9
0.5	205	0.05	0.8	0.16	0.3	5.5	1.7	5.3	15.4
2.2	146	0.11	2.5	0.24	0.9	12.8	3.2	6.1	51.1
2.4	127	0.09	2.1	0.38	0.9	10.4	2.7	6.7	40.9
0.9	111	0.02	0.3	0.01	0.1	2.0	0.8	3.1	7.2
0.6	130	0.02	0.7	0.01	0.3	3.0	1.4	3.4	13.7
0.9	141	0.02	0.5	0.01	0.2	2.4	1.2	3.3	10.0
0.4	122	0.02	0.4	0.01	0.2	2.3	1.0	3.6	11.1
1.1	12	0.02	0.8	0.10	0.3	4.0	6.8	18.5	12.1
1.9	13	0.02	1.1	0.12	0.5	6.3	6.9	17.4	13.4
0.3	188	0.10	0.9	0.05	0.5	11.1	15.6	8.0	14.9
<0.4	214	0.09	<1.2	0.53	0.5	13.2	13.0	17.9	15.1
<0.9	266	0.12	<2.5	0.27	1.1	37.6	7.3	23.4	40.3
0.7	182	0.08	<0.7	0.12	0.4	11.1	7.5	9.5	12.5
<0.4	216	0.08	<1.1	0.53	0.4	11.6	12.5	19.7	11.8
2.3	102	0.17	7.8	0.31	3.5	37.2	8.4	30.8	104.0
2.2	471	0.14	4.8	0.30	3.6	13.9	15.9	21.9	97.1
2.0	20	0.15	6.5	<0.01	2.2	14.0	4.7	9.2	65.6
0.5	44	0.07	1.7	0.12	0.7	7.2	3.5	7.7	33.0
0.2	153	0.05	0.9	0.07	0.4	4.2	4.7	7.7	14.7
0.4	42	0.08	1.2	0.69	0.7	6.8	3.7	13.7	29.3
0.6	272	0.05	1.6	0.08	1.0	6.1	3.9	8.2	26.1
0.6	361	0.08	2.1	0.05	0.8	5.2	3.4	8.1	12.2
0.5	259	0.05	1.4	0.03	1.0	5.9	4.9	11.2	19.2

Sn ppm	Sr ppm	Te ppm	Th ppm	Tl ppm	U ppm	V ppm	Y ppm	Zn ppm	Zr ppm
0.6	243	0.07	<1.3	0.10	1.1	10.7	5.1	18.3	46.2
0.9	558	0.08	3.0	0.08	1.4	12.9	7.0	20.0	23.7
0.8	313	0.11	1.8	0.35	1.0	12.1	3.6	14.4	20.7
0.3	197	0.03	1.0	0.02	0.5	4.8	1.4	7.0	10.8
0.3	516	0.05	1.1	0.07	0.9	14.4	8.3	16.6	12.5
0.9	434	0.13	4.4	0.11	1.9	13.9	6.8	13.0	45.6
0.6	355	0.09	2.0	0.09	1.5	10.0	5.6	9.2	40.0
0.7	139	0.12	1.4	0.06	1.3	17.9	3.0	7.9	43.7
0.2	108	0.05	0.5	0.05	0.3	5.3	1.4	5.4	5.8
0.5	223	0.10	1.2	0.09	0.7	11.5	2.6	6.9	22.0
0.5	145	0.06	1.6	0.62	2.6	18.2	6.2	14.1	24.9
0.5	124	0.04	2.7	0.04	1.6	8.7	4.6	10.4	20.5
0.5	314	0.05	1.2	<0.01	1.4	12.9	5.7	12.3	15.2
0.8	227	0.06	3.7	<0.01	1.5	10.7	7.1	14.4	37.4
0.6	132	0.04	2.4	<0.01	1.0	7.0	3.7	6.7	21.0
0.6	245	0.07	1.9	<0.01	0.8	6.8	2.4	7.0	23.6
9.3	232	0.07	1.9	<0.01	0.7	6.4	2.3	6.7	30.5
1.8	142	0.21	6.5	0.39	2.1	25.3	10.8	27.3	76.8
0.7	48	0.06	2.5	0.02	1.0	5.9	3.5	5.4	19.3
0.5	111	0.07	1.6	0.01	0.7	11.5	2.8	9.2	22.9
0.8	438	0.10	2.6	<0.01	1.0	9.7	3.7	10.2	24.2
0.7	251	0.10	2.0	0.20	0.7	7.1	2.5	9.9	41.7
1.7	404	0.24	4.4	0.10	1.9	26.7	5.9	16.9	54.9
0.4	84	0.03	1.4	0.04	0.5	6.4	2.0	8.0	32.9
0.7	269	0.07	2.7	0.11	0.9	8.9	4.4	10.9	36.6
0.4	168	0.03	1.2	0.08	0.5	5.4	1.9	4.4	12.7
0.5	156	0.03	1.1	0.11	0.5	5.2	1.9	4.6	12.1
0.7	132	0.04	3.2	0.08	1.1	10.6	4.5	8.6	30.4

Sn ppm	Sr ppm	Te ppm	Th ppm	Tl ppm	U ppm	V ppm	Y ppm	Zn ppm	Zr ppm
0.6	84	0.03	2.8	0.07	1.0	9.7	3.7	5.4	23.3
0.5	144	0.03	2.3	0.05	1.0	7.2	4.1	3.1	23.5
0.1	50	0.01	0.4	0.01	0.2	0.9	0.8	1.1	3.9
0.2	50	0.01	1.1	0.02	0.4	2.5	1.2	1.3	7.6
0.2	49	0.01	0.6	0.04	0.3	3.6	1.6	1.1	6.7
0.3	107	0.02	1.1	0.05	0.3	4.7	1.6	2.8	10.8
0.1	22	0.01	0.3	0.02	0.1	2.3	0.9	2.8	3.2
0.2	112	0.01	0.8	0.03	0.3	3.0	1.2	2.2	7.8
0.2	63	0.01	0.6	0.01	0.2	2.4	1.8	1.4	6.4
0.1	42	0.01	0.3	0.02	0.1	3.4	1.9	1.9	6.0
0.2	101	0.02	1.1	0.02	0.6	4.5	1.9	2.2	9.8
0.7	124	0.08	1.9	0.07	0.5	14.0	4.9	6.9	12.4
0.6	159	0.06	2.4	0.06	0.7	20.9	6.1	8.0	10.4
0.4	136	0.03	1.0	0.10	0.5	4.7	1.7	3.8	12.8
0.3	42	0.02	0.8	0.48	0.4	13.1	3.9	22.8	6.4
1.1	60	0.02	<0.8	0.54	0.2	13.9	1.8	15.5	3.9
0.4	31	0.02	0.9	0.10	0.4	14.4	2.8	24.0	6.6
0.3	67	0.02	0.7	0.58	2.2	11.0	5.3	16.0	4.0
0.6	45	0.02	1.6	0.15	0.5	18.2	4.1	17.4	10.2
<1.5	19	<0.30	1.6	1.93	0.8	20.7	5.8	20.7	14.8

Sn ppm	Sr ppm	Te ppm	Th ppm	Tl ppm	U ppm	V ppm	Y ppm	Zn ppm	Zr ppm
<1.2	94	<0.23	2.8	0.34	1.5	35.8	7.4	213.0	23.5
<2.1	124	<0.41	2.2	4.48	4.7	48.9	8.8	19.1	20.4
4.7	30	0.03	1.5	0.47	0.6	13.2	5.7	150.0	7.7
3.3	26	0.02	1.9	0.58	0.8	13.6	4.8	16.9	13.5
2.9	36	0.02	1.5	0.40	0.6	11.9	6.3	1130.0	12.0
4.2	35	0.01	1.6	1.07	11.4	73.5	4.0	374.0	28.3
12.1	48	<0.01	1.6	0.81	5.3	40.1	4.1	1510.0	34.0
7.7	47	0.02	1.5	0.67	1.5	22.6	4.8	2270.0	22.2
2.3	21	0.03	1.6	0.49	0.6	14.6	4.0	69.0	17.9
<1.2	36	<0.24	1.9	2.69	3.9	35.1	6.1	19.9	28.1
<2.4	45	<0.47	2.8	1.48	8.4	225.0	14.5	633.0	150.0
1.0	11	<0.21	1.8	1.35	1.4	47.7	4.0	18.7	19.7
<1.7	12	<0.33	1.8	6.88	1.6	19.7	3.6	22.9	16.4
<1.6	16	<0.32	2.1	1.92	9.7	22.4	6.4	22.4	19.2
<1.3	324	<0.25	3.0	0.52	1.4	52.4	9.5	56.1	28.7
<2.5	54	<0.49	6.4	3.67	14.4	213.0	18.4	514.0	24.2
<1.3	15	<0.25	1.2	0.72	0.5	9.4	7.9	18.6	4.7
<1.6	16	<0.32	<1.3	5.97	0.6	13.0	5.8	78.5	12.9
<2.2	19	<0.43	1.9	2.56	2.0	38.4	7.0	21.3	29.9
<0.9	15	<0.19	0.7	0.72	0.2	4.8	6.5	679.0	1.7
<1.5	23	<0.30	3.2	0.83	1.3	39.5	9.5	13.7	24.9
<1.2	21	<0.23	2.1	1.72	1.3	29.9	4.9	52.9	20.7
1.0	12	<0.20	1.3	1.15	0.7	22.1	4.9	22.1	16.3
<2.1	16	<0.42	2.1	6.01	4.2	60.1	4.8	47.7	17.2
<1.9	20	<0.37	2.7	1.99	4.2	32.6	6.0	12.5	19.9
<1.5	60	<0.30	1.5	2.08	4.0	37.2	9.7	106.0	46.1
<1.2	43	<0.23	1.8	0.97	0.7	42.8	5.2	23.7	39.4
<0.7	40	<0.15	1.3	0.15	0.5	23.5	6.4	47.0	18.4

Sn ppm	Sr ppm	Te ppm	Th ppm	Tl ppm	U ppm	V ppm	Y ppm	Zn ppm	Zr ppm
<1.4	16	<0.27	2.0	2.01	2.8	26.8	7.8	16.1	17.4
<1.9	35	<0.37	3.1	2.00	2.7	40.0	3.3	63.7	65.5
0.2	13	0.01	0.4	0.12	0.3	5.5	2.6	4.3	4.2
0.5	129	0.02	1.8	0.21	0.5	9.9	31.4	299.0	14.3
0.8	480	0.05	4.1	0.19	1.3	32.9	10.6	27.7	19.5
0.4	10	0.01	<0.4	0.94	0.3	13.6	3.2	8.2	8.9
0.5	20	0.02	0.8	0.58	0.4	13.1	3.3	6.4	17.2
0.3	151	0.02	1.6	0.25	0.3	8.9	3.3	3.4	9.1
0.8	425	0.05	4.4	0.74	1.0	46.4	4.8	25.3	20.0
0.4	11	0.02	0.7	0.95	0.4	10.2	4.1	37.9	7.9
0.6	16	0.02	1.9	0.29	0.5	16.8	5.2	11.7	18.9
0.4	9	0.02	<0.4	1.81	0.2	7.3	2.9	608.0	6.2
0.6	178	0.04	4.5	0.46	0.7	27.9	4.9	38.3	15.3
0.5	13	0.02	1.1	0.67	0.4	13.2	2.7	6.6	15.5
2.6	161	0.09	4.9	0.62	2.6	127.0	9.9	15.6	46.3
1.1	188	0.12	3.5	2.97	1.4	117.0	22.2	1050.0	22.4
0.6	34	0.07	<0.7	0.74	0.5	8.6	3.5	8.6	8.9
0.4	31	0.03	<0.7	0.75	0.5	9.5	3.2	6.8	7.9
0.3	16	0.03	<0.6	2.67	0.2	4.2	2.9	10.5	5.4
0.3	15	0.03	<0.3	0.50	0.2	4.2	3.1	6.4	6.0
1.0	271	0.06	2.6	0.83	0.9	23.6	5.0	10.9	15.5
0.9	260	0.05	2.7	0.56	1.0	26.0	5.1	13.2	14.8
0.4	282	0.08	3.8	2.45	1.6	27.4	10.3	43.6	7.2
0.2	339	0.07	4.1	0.59	1.4	25.0	11.0	28.1	6.4
0.3	17	0.02	<0.4	3.63	0.3	4.3	9.1	13.1	3.7
0.2	16	0.01	0.5	0.70	0.3	4.2	9.6	11.6	2.8
0.3	24	0.02	0.7	2.59	0.5	8.2	6.3	65.8	4.0
0.3	30	0.02	0.9	0.39	0.5	8.3	6.8	28.0	2.2

Sn ppm	Sr ppm	Te ppm	Th ppm	Tl ppm	U ppm	V ppm	Y ppm	Zn ppm	Zr ppm
0.4	14	0.01	0.6	0.34	0.4	7.5	3.7	183.0	5.0
0.4	10	0.01	0.5	0.21	0.4	7.2	3.8	70.0	5.8
1.3	17	0.02	1.7	0.45	1.0	20.6	4.7	14.8	11.8
1.1	17	0.02	1.8	0.30	1.1	20.8	4.5	17.4	20.4
1.1	17	0.02	2.0	0.72	1.1	23.3	4.7	14.9	26.9
1.0	18	0.02	2.3	0.28	0.9	22.3	4.4	15.1	19.7
1.1	12	0.11	1.0	0.66	0.9	24.4	3.8	125.0	16.5
0.9	12	0.05	1.2	0.39	0.9	21.0	3.4	29.7	20.3
0.3	171	0.02	1.7	0.20	0.2	8.2	3.0	2.9	6.5
0.4	32	0.03	<0.7	0.72	0.5	10.1	3.3	6.8	8.8
0.3	30	0.02	0.8	0.40	0.6	8.1	6.7	24.6	2.5
0.6	14	0.02	1.0	0.34	0.4	10.0	4.5	16.1	11.2
0.5	12	0.01	1.0	0.26	0.3	9.6	4.6	22.5	9.9
1.3	18	0.02	2.6	0.51	0.7	22.9	5.3	50.4	28.3
1.4	17	0.02	2.3	0.31	0.7	23.7	5.2	264.0	27.2
0.9	14	0.02	2.0	0.79	0.7	18.9	4.6	132.0	24.2
0.8	17	0.02	1.8	0.57	0.7	19.8	4.8	136.0	22.2
0.8	18	0.03	<1.1	3.82	2.5	21.9	5.9	246.0	25.4
0.3	9	0.03	<0.6	1.95	1.7	13.5	4.5	32.1	11.0
0.6	10	0.06	<0.6	1.37	0.6	13.1	3.7	20.0	9.9
0.4	9	0.02	<0.5	1.12	0.5	11.9	3.7	18.4	9.0
1.1	28	0.04	1.8	0.65	0.9	28.6	3.9	370.0	42.5
1.1	20	0.04	<1.2	0.61	0.8	28.1	3.5	29.3	43.1
2.3	32	0.05	2.4	0.43	1.5	89.7	7.7	145.0	105.0
1.5	16	0.02	0.9	0.33	1.1	75.6	5.2	72.4	67.6
1.2	30	0.03	1.9	0.24	0.7	31.3	3.9	277.0	48.2
1.6	33	0.04	2.7	0.27	1.0	32.1	4.4	14.8	41.8
0.6	16	0.04	1.9	0.16	1.9	18.8	3.3	159.0	24.6

Sn ppm	Sr ppm	Te ppm	Th ppm	Tl ppm	U ppm	V ppm	Y ppm	Zn ppm	Zr ppm
0.5	13	0.04	1.8	0.11	1.8	15.9	2.8	100.0	20.1
0.9	31	0.02	1.8	0.12	0.5	13.5	3.3	10.6	18.5
1.6	27	0.02	1.5	0.09	0.5	13.3	2.9	9.5	16.3
2.6	95	0.04	4.7	0.45	1.6	52.7	9.6	40.7	70.8
1.1	28	0.03	2.1	0.20	0.9	24.9	3.9	19.3	35.1
0.2	47	0.02	0.9	0.33	0.2	7.0	4.1	18.6	4.9
0.2	37	0.02	0.8	0.18	0.2	6.0	3.1	11.8	3.0
0.2	6	0.02	0.5	0.29	0.3	6.1	3.7	7.2	3.2
0.1	4	0.02	0.3	0.12	0.2	4.9	2.5	5.4	2.6
0.9	145	0.16	3.1	0.34	1.4	29.2	6.3	25.1	14.0
0.7	151	0.11	2.9	0.29	1.4	31.0	5.8	23.5	11.5
0.4	10	0.03	<0.8	0.73	0.5	13.5	3.8	18.5	14.9
0.5	10	0.03	0.7	0.46	0.6	11.6	3.7	6.1	12.6
0.1	5	0.02	<0.3	0.21	0.2	8.1	3.3	21.2	4.8
0.1	6	0.02	<0.3	0.19	0.2	9.5	3.7	15.4	4.0
0.5	74	0.04	5.0	0.14	1.1	50.2	6.3	103.0	6.5
0.5	65	0.04	4.9	0.11	1.3	55.1	6.0	13.5	7.1
1.0	98	0.07	6.0	0.46	1.7	88.6	6.4	41.1	27.2
0.9	88	0.07	6.0	0.34	1.6	89.1	6.2	34.2	30.2
0.4	9	0.03	<0.6	0.41	0.5	11.4	3.7	5.9	14.9
1.0	19	0.02	2.4	0.53	0.6	20.3	5.1	39.9	29.6
0.4	9	0.02	<0.5	1.20	0.5	11.4	3.5	16.9	13.9
0.5	14	0.02	0.9	0.29	0.3	10.9	2.8	37.6	12.0
0.5	14	0.02	0.9	0.20	0.3	10.3	3.1	154.0	12.6
0.4	13	0.03	1.2	0.26	0.3	12.3	3.5	7.0	11.3
0.3	11	0.02	0.9	0.09	0.3	10.0	2.5	5.5	9.1
1.0	269	0.05	6.9	0.64	0.7	58.4	4.5	12.3	27.1
1.0	248	0.04	6.5	0.20	0.6	47.3	4.4	9.5	20.9

Sn ppm	Sr ppm	Te ppm	Th ppm	Tl ppm	U ppm	V ppm	Y ppm	Zn ppm	Zr ppm
0.4	14	0.01	0.5	0.87	0.4	12.6	4.6	35.3	9.9
0.2	10	0.01	0.4	0.50	0.3	10.7	3.8	29.2	8.6
0.7	18	0.04	3.2	0.26	0.5	23.9	5.9	3.9	23.4
0.7	15	0.04	3.0	0.22	0.6	25.4	5.7	4.5	25.8
0.6	17	0.03	1.7	0.44	0.4	16.5	3.8	530.0	11.4
0.7	20	0.06	2.3	0.16	0.4	18.9	5.1	297.0	10.6
0.8	83	0.06	3.2	1.41	1.5	49.1	5.1	160.0	15.0
0.7	77	0.04	3.3	0.37	1.4	49.9	4.3	90.5	14.9
1.0	41	0.05	2.9	1.93	2.8	47.4	7.6	61.1	21.2
0.7	41	0.04	2.5	1.71	3.0	49.8	7.1	49.1	18.7
0.7	38	0.04	1.9	1.68	2.6	42.7	6.4	50.9	18.6
0.6	37	0.04	2.1	1.74	3.1	44.7	6.2	51.0	18.2
0.7	40	0.04	2.2	1.91	2.9	42.4	6.5	53.0	19.4
1.4	42	0.02	2.1	0.25	1.1	29.2	3.8	57.2	34.0
1.4	46	0.19	2.3	0.17	1.1	37.9	4.7	47.9	37.4
1.0	49	0.03	2.3	0.21	1.1	31.5	4.2	69.8	35.0
0.4	24	0.08	1.1	2.87	0.6	13.4	4.7	14.5	19.4
0.7	17	0.09	1.3	2.31	0.8	13.2	3.7	8.4	16.1
0.7	33	0.05	3.5	0.56	1.0	26.7	6.7	12.9	23.7
0.5	20	0.06	2.4	0.71	0.9	23.9	5.0	9.2	19.1
1.0	18	0.12	1.5	2.80	1.4	20.1	7.5	15.0	12.5
0.5	15	0.07	2.3	0.38	1.6	22.1	6.9	11.1	11.4
0.9	19	0.19	<1.3	5.68	2.1	29.3	7.0	172.0	20.3
0.7	16	0.06	2.2	0.60	2.0	30.6	6.2	106.0	16.8
1.0	27	0.06	2.9	1.04	1.9	30.7	7.6	64.1	30.8
0.9	18	0.05	1.8	0.83	1.7	27.3	5.0	56.9	28.2
0.4	12	0.04	1.2	0.28	0.4	12.6	3.3	6.7	10.1
0.4	18	0.05	1.4	3.04	1.3	19.3	7.1	16.2	13.7

Sn ppm	Sr ppm	Te ppm	Th ppm	Tl ppm	U ppm	V ppm	Y ppm	Zn ppm	Zr ppm
7.8	277	0.31	12.8	1.32	8.5	190.0	32.2	404.0	254.0
6.3	262	0.21	11.1	0.77	7.4	160.0	28.7	374.0	195.0
7.0	287	0.21	13.7	1.00	8.6	185.0	33.0	553.0	222.0
16.1	313	5.33	15.2	1.64	10.8	240.0	38.6	391.0	288.0
7.6	288	0.26	12.1	1.18	8.7	206.0	32.8	375.0	254.0
7.9	289	0.25	12.2	1.35	9.1	206.0	32.9	334.0	266.0
4.1	256	0.14	8.7	0.46	5.1	120.0	23.5	898.0	170.0
6.7	285	0.21	14.7	1.10	8.3	190.0	32.0	488.0	223.0
8.4	385	0.35	18.9	3.54	12.2	270.0	46.4	468.0	311.0
5.5	208	0.35	12.6	12.30	21.7	298.0	43.3	306.0	156.0
4.0	206	0.28	13.9	8.86	20.9	284.0	43.1	223.0	140.0
5.6	201	0.34	17.0	11.50	23.5	276.0	43.0	339.0	161.0
<2.4	385	<0.08	5.9	<0.08	0.4	1.7	6.9	30.5	31.2
5.1	274	0.13	10.4	0.59	7.2	157.0	30.1	583.0	183.0
0.3	6	0.02	0.4	2.56	0.3	8.0	3.0	66.1	3.2
0.2	5	0.01	0.5	0.04	0.2	7.2	2.5	4.3	3.8
0.3	23	0.01	0.8	0.38	0.2	7.0	3.1	35.5	5.9
0.3	23	0.01	0.8	0.08	0.2	6.9	3.2	10.1	6.5
0.7	65	0.02	2.3	0.33	0.5	16.6	5.5	18.4	17.7
0.7	74	0.02	2.4	0.14	0.4	15.2	5.2	14.5	15.9
0.6	329	0.03	4.9	5.04	0.5	25.3	4.1	17.8	16.8
0.8	393	0.03	7.4	0.38	0.6	36.5	5.1	18.6	20.9
0.2	7	0.01	<0.2	0.47	0.2	3.9	3.6	62.3	3.7
0.2	8	0.01	0.3	0.31	0.2	4.1	3.9	37.9	3.7
0.3	10	0.01	0.5	1.04	0.2	6.6	5.0	201.0	3.9
0.3	9	0.01	0.5	0.73	0.2	5.8	4.4	60.6	4.8
0.5	13	0.02	<0.5	0.50	0.4	15.1	3.8	2980.0	6.9
0.5	14	0.02	0.8	0.38	0.4	16.2	3.9	855.0	9.5

Sn ppm	Sr ppm	Te ppm	Th ppm	Tl ppm	U ppm	V ppm	Y ppm	Zn ppm	Zr ppm
0.2	6	0.01	0.6	1.93	0.2	7.5	2.9	63.6	4.0
1.8	44	0.30	7.4	0.66	7.5	95.7	17.9	34.4	28.0
1.3	36	0.24	6.5	0.48	6.4	84.1	15.3	29.0	23.3
1.4	25	0.23	4.2	0.56	4.5	53.4	9.7	37.2	17.0
1.3	24	0.19	4.1	0.29	3.9	52.7	9.3	30.4	15.4
0.9	16	0.09	3.3	0.51	2.4	32.8	6.3	44.6	22.4
1.7	14	0.09	3.0	0.47	2.3	29.1	6.2	32.3	18.9
1.5	45	0.26	7.0	0.55	5.7	74.9	14.2	39.9	31.6
1.7	35	0.23	5.4	0.52	5.1	67.9	12.1	37.3	23.5
1.2	14	0.04	1.4	2.69	0.8	26.8	7.0	32.1	38.4
1.2	11	0.02	2.0	1.02	0.6	22.4	5.8	19.2	34.4
0.8	10	0.03	1.2	0.79	0.4	11.0	5.9	39.3	9.3
0.5	9	0.03	1.1	0.63	0.4	10.4	5.7	17.6	9.5
3.0	14	0.05	<1.7	4.67	1.6	25.1	6.3	14.8	20.2
0.6	10	0.05	2.1	1.06	1.5	24.6	5.7	10.4	11.8
0.7	17	0.03	1.2	1.36	2.8	16.8	5.3	15.1	17.0
0.6	15	0.03	2.0	0.78	2.2	14.8	4.7	11.6	18.3
1.4	35	0.22	5.4	0.52	4.7	64.0	12.1	41.5	25.5
0.7	17	0.04	1.2	1.35	2.8	16.8	5.4	14.1	20.3
0.6	45	0.02	<0.5	0.94	0.5	25.3	3.3	11.6	42.4
1.0	58	0.03	<0.5	0.80	0.8	51.7	4.6	8.5	47.1
0.3	10	0.02	0.4	0.61	0.2	6.2	1.6	6.3	8.3
0.4	9	0.02	0.3	0.55	0.2	6.1	1.6	6.2	7.0
0.6	19	0.02	0.7	0.48	0.3	10.0	2.7	13.1	10.9
1.1	18	0.02	0.8	0.42	0.3	9.7	2.3	11.2	12.0
1.0	14	0.02	0.9	0.37	0.4	16.6	2.7	24.1	26.9
0.8	15	0.02	1.0	0.34	0.4	21.0	3.4	30.6	33.2
12.4	49	0.03	1.9	0.34	1.0	40.3	6.2	51.4	63.2

Sn ppm	Sr ppm	Te ppm	Th ppm	Tl ppm	U ppm	V ppm	Y ppm	Zn ppm	Zr ppm
1.3	45	0.02	3.0	0.22	0.7	22.5	4.7	10.0	29.2
1.4	45	0.07	2.4	0.29	0.6	22.4	3.7	28.3	24.1
3.0	97	0.04	6.2	0.28	2.1	49.3	10.3	4.8	69.4
1.0	42	0.02	2.5	0.25	0.7	19.4	5.3	274.0	19.8
0.6	10	0.01	1.6	0.11	0.4	11.4	5.1	172.0	7.7
1.1	13	0.03	1.4	0.47	0.9	66.6	5.0	76.8	54.0
0.3	7	0.02	0.4	0.12	0.3	6.1	2.4	164.0	8.5
0.5	10	0.02	0.8	0.23	0.3	9.4	2.8	6.3	12.0
0.8	19	0.02	1.0	0.09	0.4	18.5	3.4	23.6	17.5
1.1	96	0.07	2.4	2.35	0.8	43.2	5.0	163.0	18.9
1.2	18	0.03	<1.2	0.84	1.1	31.9	3.1	23.4	20.4
1.7	26	0.03	2.6	0.26	0.8	28.8	4.5	5.8	27.8
4.7	649	0.18	22.5	0.46	5.0	271.0	14.0	8.6	87.7
2.0	157	0.05	3.5	0.87	2.4	139.0	4.9	73.0	43.8
0.7	14	0.02	1.2	0.38	7.8	14.9	3.5	13.3	14.4
0.7	12	0.02	1.0	0.37	8.4	15.1	3.0	15.8	15.5
0.5	13	0.03	1.9	0.25	1.2	19.5	4.9	190.0	16.0
0.5	12	0.03	1.9	0.25	1.3	19.8	4.7	168.0	12.5
0.6	12	0.03	1.1	1.59	0.5	11.6	5.5	43.7	8.9
0.6	10	0.03	0.8	0.50	0.5	11.4	4.6	33.3	9.9
0.8	10	0.03	1.0	0.71	0.5	17.1	4.9	8.8	16.6
0.9	10	0.03	1.0	0.63	0.5	17.1	4.3	11.7	15.4
0.6	15	0.03	0.5	0.20	1.1	53.8	3.7	11.6	20.7
0.5	12	0.03	0.4	0.20	1.0	42.5	3.3	197.0	19.4
0.8	328	0.04	3.6	0.20	2.8	28.2	7.9	9.9	12.6
0.7	323	0.04	2.8	0.17	2.9	27.0	7.1	9.1	12.0
2.2	243	0.15	4.3	2.35	3.7	72.1	9.2	38.8	24.9

Sn ppm	Sr ppm	Te ppm	Th ppm	Tl ppm	U ppm	V ppm	Y ppm	Zn ppm	Zr ppm
1.4	23	0.09	3.0	1.01	1.5	51.5	5.9	24.5	58.0
4.2	95	0.23	8.8	2.36	22.8	156.0	13.3	44.3	100.0
1.1	38	0.10	5.5	1.92	18.9	115.0	10.6	85.3	45.4
0.7	12	0.04	<1	1.21	0.7	14.6	5.0	11.2	11.5
0.5	18	0.04	0.7	1.11	1.7	24.3	7.8	11.7	14.7
3.4	14	0.03	0.9	2.93	0.6	13.2	7.5	11.2	10.4
0.5	9	0.02	0.7	1.76	0.6	11.0	5.7	8.4	9.2
1.0	13	0.02	1.3	0.72	0.6	16.0	7.1	13.8	15.4
0.7	12	0.02	1.4	0.49	0.5	16.2	6.7	7.7	15.7
1.4	11	0.04	2.0	1.59	3.1	63.6	12.2	31.9	56.5
1.0	9	0.03	1.9	1.06	2.9	62.9	9.9	21.1	52.9
1.0	15	<0.02	<1.6	8.11	0.5	15.6	4.7	12.0	14.2
1.0	22	0.02	1.4	2.33	0.6	18.0	4.8	7.6	16.5
0.6	17	0.04	1.5	0.89	0.7	10.8	4.8	8.1	8.6
0.6	15	0.04	1.1	0.96	0.6	11.2	4.4	7.4	9.1
1.2	23	0.08	2.7	0.92	1.3	52.4	6.5	32.6	53.8
1.2	236	0.12	4.5	0.54	3.5	66.3	8.0	28.7	21.4
0.8	15	0.03	<0.9	1.34	1.3	42.6	5.4	12.1	31.5
0.8	14	0.03	<0.9	1.07	1.4	56.9	4.9	11.1	34.4
1.2	25	0.04	2.0	1.38	3.3	25.8	13.3	13.7	33.5
0.7	12	0.04	1.2	0.74	0.7	16.6	4.3	6.2	13.2
1.1	24	0.07	3.3	0.66	1.1	20.1	5.1	14.9	8.3
0.8	20	0.06	3.2	0.61	0.9	18.2	4.1	11.2	8.7
0.9	15	0.05	0.9	0.75	1.3	33.9	4.7	388.0	37.9
1.0	11	0.05	0.7	0.70	1.2	30.1	3.8	142.0	33.3
1.0	13	0.03	<0.9	0.68	1.7	33.2	7.4	12.6	69.4
0.7	10	0.03	<0.8	0.61	1.9	28.0	6.4	24.4	58.9
1.0	13	0.03	1.5	1.05	0.7	16.5	4.2	36.6	

Sn ppm	Sr ppm	Te ppm	Th ppm	Tl ppm	U ppm	V ppm	Y ppm	Zn ppm	Zr ppm
1.3	72	0.03	2.1	1.39	1.5	46.2	7.5	189.5	
5.4	260	0.13	16.4	0.95	3.3	152.9	31.4	92.9	
0.7	21	0.12	1.1	2.80	4.0	232.1	1.7	10.0	
0.8	41	0.03	0.9	1.82	0.2	11.8	3.0	8.5	
1.2	21	0.03	2.2	6.02	1.0	35.6	5.5	20.3	
4.6	127	0.43	11.3	13.44	57.2	1702.8	27.7	1597.5	
1.0	51	0.04	2.1	1.26	1.8	48.1	10.3	61.1	
1.1	59	0.04	2.1	3.73	1.2	55.6	9.3	11.1	
0.7	26	0.07	1.9	1.23	1.0	17.1	5.9	7.9	
0.9	48	0.09	2.3	0.76	2.2	33.9	9.1	20.6	
0.9	28	0.02	1.7	1.18	3.0	29.0	3.9	44.9	
0.7	28	0.02	1.4	3.85	0.3	16.9	3.1	24.7	
1.4	35	0.02	1.8	2.36	0.6	21.4	5.6	35.9	
4.9	140	0.25	12.4	11.00	49.4	1079.3	26.6	699.8	
1.1	23	0.04	1.7	1.21	1.8	28.0	8.9	55.0	
5.1	126	0.30	12.2	7.41	22.3	278.7	40.1	70.3	
4.0	214	0.46	11.0	13.26	55.6	1168.5	46.7	1237.5	
3.8	104	0.27	8.9	13.37	71.3	1003.4	37.1	893.2	
0.8	25	0.05	1.7	1.04	1.5	24.2	4.3	87.8	
0.6	26	0.03	1.2	5.56	0.3	19.0	2.5	14.5	
0.8	24	0.02	1.8	3.26	0.8	27.2	4.6	86.6	
4.3	138	0.27	10.1	15.08	58.2	1416.2	33.1	1293.3	
2.8	26	0.18	3.0	3.32	41.2	245.2	8.3	28.5	
5.8	125	0.42	13.7	9.43	41.1	765.1	32.3	612.2	
0.7	21	0.04	1.5	1.13	3.4	86.9	3.0	11.1	
0.5	24	0.02	1.1	0.77	0.4	12.0	2.8	11.4	
1.7	31	0.05	3.5	1.21	1.2	46.5	5.9	16.8	
1.0	28	0.04	2.1	2.69	1.9	55.9	3.2	276.9	

Sn ppm	Sr ppm	Te ppm	Th ppm	Tl ppm	U ppm	V ppm	Y ppm	Zn ppm	Zr ppm
1.3	55	0.08	4.5	0.49	1.3	11.4	9.9	5.6	39.4
2.2	53	0.11	<3.8	19.82	1.0	8.5	6.7	28.9	58.4
1.8	62	0.05	5.3	0.55	1.8	13.8	11.5	6.5	41.7
0.9	30	0.02	2.6	0.26	0.8	6.9	5.6	3.3	27.4
1.7	63	0.04	5.5	0.55	1.5	14.5	11.6	7.2	49.5
3.8	59	0.04	3.5	0.29	1.2	11.4	8.1	4.8	36.7
0.7	44	0.02	2.5	0.19	0.7	7.1	6.0	3.0	24.6
2.9	62	0.03	4.1	0.27	1.4	11.5	9.5	5.7	36.2
1.1	36	0.03	2.7	1.08	0.9	9.6	6.5	5.0	24.9
1.3	33	0.05	1.9	1.60	1.1	21.2	4.4	8.8	19.0
0.7	32	0.02	0.5	0.55	0.2	2.8	2.6	2.2	4.0
0.9	51	0.02	2.0	0.05	0.4	3.6	5.3	1.3	8.8
0.7	39	0.01	3.0	0.03	0.7	5.5	9.2	1.8	13.8
3.7	44	0.04	8.7	0.09	1.8	18.4	17.0	8.3	41.2
3.5	20	0.02	8.8	0.15	3.0	11.5	11.1	5.3	92.7
3.0	48	0.15	<2.8	19.08	1.0	8.4	6.4	28.2	40.1
0.9	33	0.03	2.3	0.92	0.9	8.8	6.0	4.1	25.1
9.1	967	0.14	81.0	1.50	29.5	206.0	203.0	81.1	673.9
10.9	874	0.20	76.7	3.85	21.8	177.1	186.9	69.6	686.9
15.8	909	0.88	80.5	4.15	23.5	181.8	188.0	67.5	655.0
12.2	880	0.38	78.1	4.19	22.2	171.7	180.9	67.2	587.2
11.6	884	0.30	78.9	3.94	21.7	176.9	182.1	62.2	596.2
10.5	857	0.26	75.3	3.82	22.7	174.2	183.9	58.0	641.5
9.9	853	0.19	74.6	3.36	21.3	176.1	181.4	57.4	598.1

Sn ppm	Sr ppm	Te ppm	Th ppm	Tl ppm	U ppm	V ppm	Y ppm	Zn ppm	Zr ppm
9.5	780	0.16	67.8	3.43	20.6	157.2	162.2	51.7	555.9
9.2	797	0.16	68.1	3.46	20.1	162.4	165.0	55.7	587.4
47.7	1196	1.17	94.4	24.55	45.9	322.8	227.5	220.3	827.2
48.7	1182	1.24	89.7	25.59	46.7	319.0	224.8	222.1	802.3
63.2	1224	1.53	87.6	32.30	52.5	377.9	232.1	290.6	803.4
57.7	1201	1.33	88.6	29.45	49.6	344.3	230.5	251.8	701.1
84.2	1260	2.36	67.1	44.54	60.0	511.9	196.9	512.8	630.9
66.1	1200	1.55	79.6	32.20	51.3	382.4	215.8	321.1	766.5
59.9	759	<0.10	77.3	1.33	21.8	170.3	175.0	36.2	656.4
10.4	827	0.20	69.9	3.93	21.8	165.7	174.9	57.5	542.2
61.2	1205	1.53	86.2	31.02	50.4	372.2	226.6	287.7	824.5
3.9	101	0.30	3.3	1.49	2.7	208.0	24.9	48.8	26.5
<0.8	98	0.32	3.4	1.70	3.0	207.0	25.3	47.1	30.1
0.4	87	0.04	2.0	0.19	0.9	24.9	7.9	12.6	21.5
1.1	70	0.08	3.2	2.22	1.6	37.5	10.4	20.1	27.4
1.6	258	0.13	6.3	1.95	2.3	63.5	12.0	29.6	71.9
2.5	766	0.21	13.7	3.65	4.6	109.0	19.2	63.2	186.0
23.1	1630	0.30	22.1	1.67	5.6	133.0	28.8	72.5	270.0
1.2	235	0.12	7.0	1.95	2.1	57.9	12.2	25.9	78.0
<0.5	25	0.05	<1.4	1.49	1.1	37.5	6.9	15.9	33.2
0.4	28	0.05	1.6	0.13	0.6	15.3	3.4	12.0	15.1
1.2	109	0.14	5.8	0.92	4.0	75.1	14.2	43.1	44.0
0.7	31	0.12	2.9	0.31	1.5	48.5	9.5	33.2	27.2
0.9	40	0.08	<2	1.36	1.5	60.0	9.1	31.9	70.7
0.6	49	0.07	3.2	0.28	0.9	31.1	5.7	22.1	32.9
2.3	91	0.18	7.9	0.82	4.2	98.8	14.9	58.6	68.0
0.3	36	0.05	2.2	1.35	0.8	26.4	6.3	21.3	17.8
0.8	143	0.07	3.4	1.02	1.1	42.8	7.6	35.9	31.8

Sn ppm	Sr ppm	Te ppm	Th ppm	Tl ppm	U ppm	V ppm	Y ppm	Zn ppm	Zr ppm
0.8	111	0.10	4.1	1.55	2.0	53.5	10.6	26.3	52.6
2.2	181	0.19	11.4	2.75	3.9	105.0	19.5	78.2	134.0
1.4	1120	0.18	5.6	2.01	3.3	99.8	23.0	63.0	99.0
0.5	102	0.06	3.1	0.46	1.7	45.6	7.9	21.7	29.5
0.9	87	0.13	3.8	1.23	1.5	51.9	8.2	28.4	93.2
0.3	146	0.03	1.8	0.05	0.4	11.8	3.3	1.8	9.4
2.4	191	0.09	3.9	1.14	1.4	35.4	10.3	45.9	36.7
2.6	504	0.11	4.2	1.30	1.5	40.7	11.0	44.5	50.2
5.8	579	0.27	14.5	1.71	5.6	130.0	23.3	141.0	96.2
3.4	249	0.15	7.2	1.18	2.1	71.9	13.2	92.5	55.9
1.2	159	0.05	3.1	0.45	1.0	37.2	9.0	35.8	20.4
1.3	48	0.06	1.8	1.05	0.6	20.1	4.9	22.4	17.7
7.8	129	0.15	5.4	0.78	1.8	61.2	10.2	47.9	70.1
5.2	113	0.16	5.4	0.68	1.6	61.6	10.1	59.1	74.4
1.4	82	0.08	1.9	0.39	0.8	29.4	5.4	18.6	24.3
10.4	278	0.38	13.6	1.52	3.8	120.0	20.5	98.7	183.0
12.1	292	0.11	5.3	0.42	3.5	47.9	8.4	7.2	32.7
0.5	32	0.03	1.3	0.09	0.6	16.8	3.7	4.9	10.0
0.9	85	0.04	0.7	3.17	1.5	27.7	4.5	13.0	24.6
0.9	124	0.04	7.6	0.37	1.6	39.0	15.5	17.1	11.3
0.4	82	0.02	2.0	0.08	0.4	11.6	5.8	8.8	10.5
1.5	59	0.06	2.0	0.43	1.0	34.9	6.4	14.6	46.4
<0.3	233	0.05	4.1	0.20	1.7	28.1	6.1	6.5	37.2
0.3	11	0.03	0.3	0.06	0.2	11.9	4.7	6.5	20.1
0.7	46	0.04	<0.5	1.96	1.3	22.7	3.2	14.1	8.8
0.9	63	0.04	3.7	0.14	1.4	24.1	8.1	8.7	10.7
2.1	108	0.06	4.0	0.73	1.3	25.4	5.3	35.5	29.2
4.1	45	0.07	4.2	0.21	1.3	27.1	9.8	6.1	32.6

Sn ppm	Sr ppm	Te ppm	Th ppm	Tl ppm	U ppm	V ppm	Y ppm	Zn ppm	Zr ppm
4.2	58	0.10	4.5	0.36	1.7	43.5	8.5	9.2	30.7
3.3	42	0.05	2.0	0.11	0.8	14.4	5.5	2.2	23.0
2.8	39	0.08	2.7	0.24	1.7	41.1	13.4	19.1	24.7
4.1	145	0.12	7.1	1.33	2.1	60.2	11.4	25.6	43.8
3.4	73	0.10	4.9	0.75	1.6	47.1	9.1	15.5	62.0
3.7	113	0.08	6.9	0.79	1.8	61.3	10.0	25.8	48.6
3.9	59	0.04	2.3	1.98	1.5	23.1	10.8	20.2	13.7
3.5	103	0.09	6.4	0.81	2.0	52.8	11.6	24.9	61.6
3.3	101	0.12	6.0	1.09	1.9	52.7	10.7	16.4	52.3
4.2	41	0.07	3.0	0.32	1.3	33.2	8.1	8.7	27.8
3.5	58	0.09	3.3	4.52	1.0	41.0	9.2	12.8	29.6
4.2	50	0.07	7.6	0.77	1.6	61.1	12.0	23.6	54.7
2.0	48	0.06	2.6	0.11	0.9	13.5	4.6	5.0	21.4
6.5	55	0.09	7.6	0.47	2.5	76.0	14.3	16.6	49.5
2.7	129	0.04	1.5	0.12	0.7	30.1	7.1	5.8	11.1
2.7	50	0.08	3.9	0.19	1.2	27.5	10.3	1.6	30.7
3.7	44	0.08	3.8	0.13	1.5	26.6	6.5	10.8	34.7
2.7	91	0.07	3.5	0.36	1.2	27.6	14.4	4.7	33.9
4.6	39	0.09	5.6	1.42	1.7	39.2	13.1	26.5	51.1
3.3	35	0.06	2.9	0.23	1.2	41.5	15.1	51.0	14.7
3.5	70	0.08	7.7	0.59	1.9	54.8	11.7	21.3	61.9
3.7	88	0.13	7.6	0.55	3.1	78.3	13.5	45.4	74.4
2.0	81	0.06	2.7	0.34	0.8	19.4	5.2	4.5	23.9
2.4	65	0.08	4.2	0.09	1.3	33.0	9.6	4.2	35.7
2.0	88	0.09	2.1	0.41	1.9	37.0	11.0	10.7	14.8
3.9	84	0.05	1.5	0.43	0.9	19.9	8.1	6.0	11.4
3.5	40	0.08	5.9	0.51	1.6	44.5	9.8	11.2	56.3
3.5	48	0.11	9.5	0.77	2.7	69.7	12.9	36.7	63.6

Sn ppm	Sr ppm	Te ppm	Th ppm	Tl ppm	U ppm	V ppm	Y ppm	Zn ppm	Zr ppm
7.0	45	0.07	6.4	1.10	1.5	35.3	8.0	19.6	40.0
1.8	180	0.05	2.6	0.43	0.4	15.6	3.3	10.7	12.2
2.9	126	0.11	7.0	0.42	1.6	59.2	8.3	20.5	23.0
2.3	111	0.06	5.3	1.74	0.9	28.7	6.5	15.3	27.3
5.7	245	0.23	9.3	0.35	2.1	34.3	9.5	<0.94	83.0
4.8	36	0.14	7.8	0.40	2.6	63.7	17.8	17.0	41.2
4.2	104	0.11	5.0	0.19	1.5	36.8	9.7	5.0	25.9
3.2	76	0.05	2.0	0.08	0.6	18.3	5.9	47.9	15.4
1.8	113	0.06	1.8	0.37	0.9	21.7	6.4	5.5	18.1
2.2	93	0.13	6.9	1.08	2.1	53.8	7.9	28.0	32.9
9.7	92	0.10	7.8	0.28	1.9	48.0	13.0	8.1	38.6
10.9	131	0.09	4.1	0.12	1.7	30.3	9.1	3.7	26.1
3.0	244	0.12	4.6	0.43	1.4	57.8	8.1	19.7	45.7
2.3	90	0.09	4.0	0.51	1.0	30.6	5.6	24.0	29.3
2.4	94	0.08	3.0	0.28	1.2	27.5	5.6	12.4	20.2
1.6	100	0.09	3.3	0.44	0.8	26.0	4.7	17.5	22.5
1.7	149	0.06	2.7	0.88	0.6	23.3	4.1	11.1	19.5
1.2	90	0.03	1.2	0.77	0.2	8.6	2.5	7.7	8.6
4.3	279	0.18	8.2	0.55	1.9	75.0	10.8	24.0	74.3
1.2	59	0.05	1.6	0.15	0.5	12.3	4.4	14.2	14.9
1.8	99	0.08	3.9	1.50	1.1	35.8	8.4	37.2	32.4
2.5	303	0.09	2.8	1.23	1.1	32.8	8.3	17.6	21.9
1.2	148	0.05	3.3	2.33	0.6	20.5	6.5	22.2	11.9
1.9	111	0.07	2.4	0.42	0.9	21.0	6.3	7.8	17.3
2.3	217	0.11	3.5	0.26	1.5	38.0	11.0	12.5	23.4
1.4	66	0.04	1.1	0.14	0.4	8.6	3.0	1.5	4.8
1.8	57	0.08	2.9	0.34	1.0	30.7	9.8	20.4	12.9
2.8	52	0.10	4.2	0.53	1.6	34.4	13.0	6.9	37.4

Sn ppm	Sr ppm	Te ppm	Th ppm	Tl ppm	U ppm	V ppm	Y ppm	Zn ppm	Zr ppm
2.8	50	0.15	6.7	2.96	2.3	71.3	10.0	37.6	39.4
2.3	51	0.06	4.2	1.27	1.1	37.3	8.0	11.7	27.0
1.6	46	0.04	1.7	0.26	0.5	15.1	6.6	1.9	11.6
1.3	41	0.04	1.5	0.05	0.3	9.2	3.9	1.1	9.6
3.0	44	0.06	5.1	1.67	1.5	48.4	10.6	14.1	44.2
2.3	121	0.09	5.5	0.40	1.6	51.0	8.6	7.2	49.5
2.6	248	0.08	6.2	0.18	1.6	44.0	8.5	10.0	39.0
2.5	106	0.08	5.2	0.38	1.6	58.0	11.2	18.1	38.4
1.9	106	0.10	5.2	0.21	1.0	30.9	8.0	10.0	32.6
1.3	209	0.07	1.8	0.35	2.0	31.1	3.8	10.1	11.5
1.5	244	0.06	2.5	0.09	0.7	20.2	5.4	3.1	21.2
1.8	165	0.09	1.7	0.18	0.8	28.9	8.1	13.9	11.0
1.8	268	0.10	2.2	0.21	1.2	29.3	7.2	23.9	16.2
2.5	81	0.12	3.3	0.38	1.4	37.3	10.6	10.6	23.7
0.8	121	0.06	0.7	0.41	0.4	10.0	2.6	3.9	6.3
1.4	48	0.05	0.7	0.06	0.6	9.5	6.9	3.5	6.5
1.4	41	0.07	2.4	0.17	1.0	20.4	7.2	6.5	24.8
2.6	51	0.06	4.3	1.61	1.5	50.4	11.2	15.3	46.3
2.5	30	0.07	3.9	0.29	1.5	27.4	6.8	6.6	33.3
5.1	28	0.09	5.7	0.20	2.0	40.8	9.2	8.6	50.5
2.6	28	0.07	3.9	0.21	1.4	28.4	7.1	7.3	35.4
5.2	34	0.10	7.1	0.91	2.4	57.7	2.1	19.0	146.0
3.7	43	0.08	5.4	0.39	1.7	36.6	6.5	13.1	45.1
3.2	43	0.06	3.2	0.13	1.1	34.1	16.5	8.0	25.8
3.6	51	0.07	4.0	0.47	1.4	40.5	9.7	13.6	29.9
3.0	5	0.08	6.2	0.43	1.7	57.6	8.6	16.5	80.5
2.9	40	0.10	4.5	0.33	2.1	40.1	12.1	14.6	37.3
3.9	47	0.11	6.4	0.87	2.3	52.6	7.4	18.0	57.1

Sn ppm	Sr ppm	Te ppm	Th ppm	Tl ppm	U ppm	V ppm	Y ppm	Zn ppm	Zr ppm
3.3	165	0.06	4.6	0.27	1.5	32.1	3.2	27.9	36.6
3.8	118	0.05	4.3	0.39	1.4	42.9	5.5	39.3	51.8
2.7	77	0.07	3.1	0.11	0.9	20.3	2.4	8.7	32.5
3.1	130	0.07	6.5	0.52	1.6	57.5	6.6	19.6	63.1
3.7	90	0.04	3.4	0.35	1.0	29.5	4.7	13.3	34.0
3.3	67	0.03	1.4	0.07	0.7	15.5	13.1	7.2	8.2
2.8	92	0.11	4.8	0.89	2.6	57.3	8.3	39.6	37.5
3.2	121	0.10	4.8	0.47	2.0	45.8	6.5	26.2	45.0
2.1	97	0.04	1.4	0.12	0.6	11.2	3.9	4.0	23.2
2.1	101	0.05	2.9	0.29	1.1	30.0	9.0	21.6	24.7
2.0	68	0.06	1.9	0.20	0.7	18.3	4.5	5.3	17.5
2.7	62	0.05	1.7	0.15	0.7	21.9	14.1	8.7	13.4
3.7	243	0.08	5.7	0.48	2.3	65.8	6.8	49.4	52.0
4.4	238	0.10	5.7	0.70	2.0	78.6	4.5	53.3	93.0
2.5	76	0.05	2.1	0.21	0.9	26.2	3.5	12.1	22.1
3.2	137	0.07	3.5	0.61	1.6	53.8	3.6	27.3	70.1
4.8	147	0.10	5.9	0.34	2.3	60.1	8.4	32.0	72.7
2.7	85	0.08	3.1	0.54	1.1	29.0	6.7	20.0	37.8
3.4	71	0.11	6.6	0.57	2.0	36.1	10.7	15.8	86.8
3.1	172	0.07	4.6	1.07	1.4	48.0	5.5	20.7	64.5
4.1	56	0.05	3.4	0.36	1.0	29.7	4.4	12.9	36.6
3.0	57	0.08	4.0	0.45	1.9	47.4	5.7	26.3	48.3
1.3	55	0.07	2.2	1.50	1.8	24.4	14.7	17.2	23.2
2.0	107	0.04	3.0	0.63	1.9	32.2	10.1	26.1	24.2
1.1	129	0.04	1.5	1.91	0.8	9.6	9.8	7.7	14.5
1.8	58	0.05	1.8	0.20	0.8	17.0	11.0	4.9	10.6
1.5	79	0.03	1.0	0.14	0.4	13.0	8.2	14.6	5.6
1.2	44	0.06	2.2	4.02	3.4	59.2	6.8	15.3	18.5

Sn ppm	Sr ppm	Te ppm	Th ppm	Tl ppm	U ppm	V ppm	Y ppm	Zn ppm	Zr ppm
3.0	34	0.06	3.3	0.23	1.4	32.2	8.4	7.1	23.0
2.6	70	0.17	6.4	0.73	3.7	105.0	12.5	46.9	44.9
1.4	71	0.11	3.3	0.40	1.8	47.0	8.8	17.5	20.7
2.9	111	0.20	5.3	0.60	2.8	72.2	14.2	27.8	34.9
26.2	29	0.08	5.7	0.17	2.6	58.6	23.4	10.2	31.6
2.8	56	0.06	4.2	0.32	2.2	34.4	7.8	15.5	36.8
4.7	439	0.20	20.0	0.29	7.3	109.0	20.3	6.0	92.3
3.2	87	0.03	2.4	2.12	1.0	21.1	9.6	6.3	30.7
2.2	118	0.08	3.5	1.84	1.5	47.0	8.9	18.7	29.7
21.9	265	0.15	7.6	0.37	2.6	104.0	10.1	22.0	50.1
8.6	375	0.04	3.1	0.34	1.6	55.8	12.0	14.6	36.5
18.1	53	0.12	8.4	1.37	3.2	108.0	24.7	47.8	90.0
1.5	132	0.03	1.2	0.59	0.5	20.7	6.8	10.6	21.1
2.4	52	0.06	5.6	0.57	1.6	51.5	11.4	18.0	57.1
4.6	171	0.07	2.5	0.54	1.9	36.7	6.6	18.6	32.5
3.0	70	0.22	1.5	0.57	0.8	22.0	5.2	29.6	21.7
2.6	138	0.08	1.6	0.22	0.5	18.3	3.5	12.2	18.1
4.7	135	0.04	0.7	0.32	0.4	11.0	3.3	9.9	10.3
10.2	83	0.44	4.4	1.62	1.6	45.5	9.6	14.7	30.7
7.4	53	0.14	8.5	2.86	4.5	80.1	14.6	30.1	56.9
12.0	69	0.12	7.1	0.46	2.2	53.0	10.2	8.4	51.8
6.8	68	0.05	2.4	0.17	1.1	20.8	5.4	5.3	21.5
10.7	69	0.07	3.6	0.26	2.1	24.9	8.5	7.2	29.3
6.5	48	0.05	1.4	0.11	1.0	12.5	4.9	4.1	18.8
1.7	46	0.05	2.8	0.81	1.5	41.5	5.8	15.6	31.3
4.0	92	0.04	2.2	0.08	0.7	14.8	6.6	7.1	13.7
12.3	50	0.07	3.2	0.11	1.1	33.3	8.9	3.9	27.2
1.6	121	0.05	1.7	0.37	0.5	15.9	2.9	8.0	

Sn ppm	Sr ppm	Te ppm	Th ppm	Tl ppm	U ppm	V ppm	Y ppm	Zn ppm	Zr ppm
5.2	68	0.06	5.3	0.86	2.0	54.2	13.9	31.2	
7.0	35	0.06	2.8	0.54	0.9	32.6	14.2	21.7	
5.5	47	0.11	1.9	0.53	1.1	60.1	19.1	12.3	
5.4	186	0.11	6.2	3.07	3.7	99.2	18.1	31.3	
5.8	92	0.08	1.9	1.42	0.9	49.8	13.5	52.3	
9.9	66	0.08	5.7	0.38	2.4	62.5	12.0	42.7	
3.4	106	0.03	1.4	0.13	0.4	14.6	6.4	6.8	
7.6	289	0.21	8.3	2.81	4.0	68.4	20.7	93.4	
9.1	195	0.11	11.7	0.34	3.2	74.4	16.3	29.4	
7.2	39	0.03	1.5	3.71	1.3	28.0	16.4	40.8	
4.9	43	0.10	7.9	14.85	3.3	77.7	19.0	63.9	
6.7	38	0.13	14.0	0.97	3.7	54.5	21.8	53.3	
2.6	40	0.16	5.3	0.39	2.4	105.6	17.1	72.0	
5.0	65	0.23	7.3	1.49	3.1	106.8	17.1	43.6	
3.7	32	0.14	2.4	15.66	0.9	66.8	5.4	92.0	
2.4	79	0.04	2.8	0.77	1.7	25.3	6.4	24.9	
2.7	127	0.04	2.6	1.47	1.0	34.0	7.5	10.4	
2.7	85	0.05	3.7	0.94	1.2	44.4	7.6	24.3	
2.8	168	0.05	4.2	1.43	4.6	46.7	8.4	11.7	
2.5	95	0.12	2.2	0.19	0.6	22.8	3.6	7.8	
1.6	91	0.04	1.5	0.15	0.9	19.9	3.5	6.5	
1.7	127	0.06	1.7	0.37	0.4	16.5	3.0	7.9	
4.7	165	0.11	5.8	1.26	1.7	55.4	6.2	68.8	
3.4	53	0.07	3.8	1.43	1.6	57.7	8.4	92.8	
7.8	105	0.14	11.0	0.55	2.7	71.0	14.1	23.0	
2.8	66	0.03	0.9	0.07	0.3	17.1	12.1	2.7	
3.6	86	0.05	4.5	0.23	1.0	30.1	8.3	7.9	
3.2	76	0.06	3.7	0.38	1.1	28.7	5.3	15.4	

Sn ppm	Sr ppm	Te ppm	Th ppm	Tl ppm	U ppm	V ppm	Y ppm	Zn ppm	Zr ppm
2.9	73	0.04	1.8	0.38	0.7	13.7	11.4	3.3	
2.3	52	0.04	1.1	0.11	0.7	20.2	11.1	8.9	
3.8	49	0.05	7.0	0.51	2.0	58.6	10.9	10.0	
3.1	89	0.05	3.3	0.39	1.1	34.1	10.7	27.9	
5.4	86	0.05	10.3	0.88	2.3	80.6	13.0	25.0	
3.7	72	0.04	1.4	0.11	0.6	16.9	6.8	3.3	
5.8	53	0.07	4.2	0.20	1.3	40.1	13.9	5.7	
6.1	36	0.04	2.5	0.51	1.1	27.6	8.8	24.6	
3.8	28	0.04	2.5	0.14	1.2	21.0	12.7	16.9	
3.9	23	0.03	1.6	0.12	0.8	20.3	7.7	7.7	
3.0	24	0.02	1.0	0.10	0.5	15.9	12.1	9.3	
10.6	185	0.09	7.6	5.15	2.5	74.6	13.6	25.6	
9.0	68	0.06	3.4	9.82	3.3	78.3	27.3	74.5	
14.2	897	0.16	8.4	2.79	2.3	71.6	19.2	42.2	
6.4	78	0.12	3.5	1.76	1.3	46.4	13.1	89.3	
7.4	73	0.10	4.3	2.22	2.4	48.0	16.8	55.0	
5.7	88	0.06	10.0	0.87	2.3	80.0	13.4	26.7	

Table 5. -- Proximate, ultimate and forms-of-sulfur analyses, calorific value, ash-fusion temperature
[blank space indicates no data or not analyzed, ar = as-received basis]

Job number	Laboratory number	Field number	State	County	Formation
Northern Great Plains Province					
ERP00101	E-173222	44-23513	Wyoming	Campbell	Ft. Union Formation
ERP00101	E-173223	44-23514	Wyoming	Campbell	Ft. Union Formation
ERP00101	E-173224	44-23515	Wyoming	Campbell	Ft. Union Formation
ERP00101	E-173225	44-23516	Wyoming	Campbell	Ft. Union Formation
ERP00101	E-173226	44-23517	Wyoming	Campbell	Ft. Union Formation
ERP00101	E-173227	44-23518	Wyoming	Campbell	Ft. Union Formation
ERP00101	E-173228	44-23519	Wyoming	Campbell	Ft. Union Formation
ERP00101	E-173229	44-23520	Wyoming	Campbell	Ft. Union Formation
ERP00101	E-173230	44-23521	Wyoming	Campbell	Ft. Union Formation
ERP00101	E-173231	Silo 2A	Wyoming	Campbell	Ft. Union Formation
ERP00101	E-173232	Silo 2B	Wyoming	Campbell	Ft. Union Formation
ERP00101	E-173233	Silo 4A	Wyoming	Campbell	Ft. Union Formation
ERP00101	E-173234	Silo 4B	Wyoming	Campbell	Ft. Union Formation
ERP00302	E-207028	106A516	Wyoming	Campbell	Ft. Union Formation
ERP00302	E-207029	106B516	Wyoming	Campbell	Ft. Union Formation
ERP00302	E-207030	106C516	Wyoming	Campbell	Ft. Union Formation
ERP00302	E-207031	106D516	Wyoming	Campbell	Ft. Union Formation
ERP00302	E-207032	102A516	Wyoming	Campbell	Ft. Union Formation
ERP00302	E-207033	102B516	Wyoming	Campbell	Ft. Union Formation
ERP00302	E-207034	102C516	Wyoming	Campbell	Ft. Union Formation
ERP00302	E-207035	102D516	Wyoming	Campbell	Ft. Union Formation
ERP00302	E-207036	107REJECT48516	Wyoming	Converse	Ft. Union Formation
ERP00302	E-207037	107REJECT35516	Wyoming	Converse	Ft. Union Formation
ERP00302	E-207038	107REJECT516	Wyoming	Converse	Ft. Union Formation

Table 5. -- Proximate, ultimate and forms-of-sulfur analyses, calorific value, ash-fusion temperature
[blank space indicates no data or not analyzed, ar = as-received basis]

Job number	Laboratory number	Field number	State	County	Formation
ERP00302	E-207039	107B516PRB	Wyoming	Converse	Ft. Union Formation
ERP00302	E-207040	ANDERSONA516	Wyoming	Converse	Ft. Union Formation
ERP00302	E-207041	ANDERSONB516	Wyoming	Converse	Ft. Union Formation
ERP00302	E-207042	ANDERSONC516	Wyoming	Converse	Ft. Union Formation
ERP00302	E-207043	ANDERSOND516	Wyoming	Converse	Ft. Union Formation
ERP00302	E-207044	CANYONA516	Wyoming	Converse	Ft. Union Formation
ERP00302	E-207045	CANYONB516	Wyoming	Converse	Ft. Union Formation
ERP00302	E-207046	CANYONC516	Wyoming	Converse	Ft. Union Formation
ERP00302	E-207047	CANYOND516	Wyoming	Converse	Ft. Union Formation
ERP00302	E-207048	C3UA515	Wyoming	Campbell	Ft. Union Formation
ERP00302	E-207049	C3UB515	Wyoming	Campbell	Ft. Union Formation
ERP00302	E-207050	C3UC515	Wyoming	Campbell	Ft. Union Formation
ERP00302	E-207051	C3UD515	Wyoming	Campbell	Ft. Union Formation
ERP00302	E-207052	C1-2MA515	Wyoming	Campbell	Ft. Union Formation
ERP00302	E-207053	C1-2MB515	Wyoming	Campbell	Ft. Union Formation
ERP00302	E-207054	C1-2MC515	Wyoming	Campbell	Ft. Union Formation
ERP00302	E-207055	C1-2MD515	Wyoming	Campbell	Ft. Union Formation
ERP00302	E-207056	107REJECT48516	Wyoming	Converse	Ft. Union Formation
ERP00302	E-207057	ANDERSONC516	Wyoming	Converse	Ft. Union Formation
ERP00357	E-217253	7-11A	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217254	7-11B	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217255	7-12A	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217256	7-12B	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217257	7-12C	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217258	7-13A	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217259	7-13B	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217260	7-13C	Wyoming	Campbell	Ft. Union Formation

Table 5. -- Proximate, ultimate and forms-of-sulfur analyses, calorific value, ash-fusion temperature
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Job number	Laboratory number	Field number	State	County	Formation
ERP00357	E-217261	7-14A	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217262	7-14B	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217263	7-14C	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217264	7-15A	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217265	7-15B	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217266	7-15C	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217267	7-15D	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217268	7-16B	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217269	7-17A	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217270	7-17B	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217271	7-17C	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217272	605A	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217273	609B	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217274	613B	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217275	614A	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217276	615	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217277	616	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217278	618	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217279	619	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217280	633	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217281	633B	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217282	633C	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217283	7-15C dup	Wyoming	Campbell	Ft. Union Formation
ERP00357	E-217284	609B dup	Wyoming	Campbell	Ft. Union Formation
ERP00358	E-217285	634	Wyoming	Campbell	Ft. Union Formation
ERP00358	E-217286	634B	Wyoming	Campbell	Ft. Union Formation
ERP00358	E-217287	634C	Wyoming	Campbell	Ft. Union Formation

Table 5. -- Proximate, ultimate and forms-of-sulfur analyses, calorific value, ash-fusion temperature
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Job number	Laboratory number	Field number	State	County	Formation
ERP00358	E-217288	634D	Wyoming	Campbell	Ft. Union Formation
ERP00358	E-217289	636	Wyoming	Campbell	Ft. Union Formation
ERP00358	E-217290	637	Wyoming	Campbell	Ft. Union Formation
ERP00358	E-217291	638	Wyoming	Campbell	Ft. Union Formation
ERP00358	E-217292	638B	Wyoming	Campbell	Ft. Union Formation
ERP00358	E-217293	638C	Wyoming	Campbell	Ft. Union Formation
ERP00358	E-217294	545	Wyoming	Campbell	Ft. Union Formation
ERP00358	E-217295	546	Wyoming	Campbell	Ft. Union Formation
ERP00358	E-217296	550	Wyoming	Campbell	Ft. Union Formation
ERP00358	E-217297	551	Wyoming	Campbell	Ft. Union Formation
ERP00358	E-217298	552	Wyoming	Campbell	Ft. Union Formation
ERP00358	E-217299	81402A	Wyoming	Converse	Ft. Union Formation
ERP00358	E-217300	81402B	Wyoming	Converse	Ft. Union Formation
ERP00358	E-217301	81402C	Wyoming	Converse	Ft. Union Formation
ERP00358	E-217302	81402D	Wyoming	Converse	Ft. Union Formation
ERP00358	E-217303	81402E	Wyoming	Converse	Ft. Union Formation
ERP00358	E-217304	81402F	Wyoming	Converse	Ft. Union Formation
ERP00358	E-217305	81402GHC	Wyoming	Converse	Ft. Union Formation
ERP00358	E-217306	81402HHC	Wyoming	Converse	Ft. Union Formation
ERP00358	E-217307	81402IHC	Wyoming	Converse	Ft. Union Formation
ERP00358	E-217308	81402JHC	Wyoming	Converse	Ft. Union Formation
ERP00358	E-217309	81402KHC	Wyoming	Converse	Ft. Union Formation
ERP00358	E-217310	81402LHC	Wyoming	Converse	Ft. Union Formation
ERP00358	E-217311	81402C3UPPER	Wyoming	Campbell	Ft. Union Formation
ERP00358	E-217312	81402UPPER44	Wyoming	Campbell	Ft. Union Formation
ERP00358	E-217313	81402C1-2	Wyoming	Campbell	Ft. Union Formation
ERP00358	E-217314	81402MIDDLE	Wyoming	Campbell	Ft. Union Formation

Table 5. -- Proximate, ultimate and forms-of-sulfur analyses, calorific value, ash-fusion temperature
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Job number	Laboratory number	Field number	State	County	Formation
ERP00358	E-217315	546 dup	Wyoming	Campbell	Ft. Union Formation
ERP00358	E-217316	637 dup	Wyoming	Campbell	Ft. Union Formation
Rocky Mountain Province					
ERP00404	E-224222	717JB1	Wyoming	Sweetwater	Ft. Union Formation
ERP00404	E-224223	717JB2	Wyoming	Sweetwater	Ft. Union Formation
ERP00404	E-224224	717JB3	Wyoming	Sweetwater	Ft. Union Formation
ERP00404	E-224225	717JB4	Wyoming	Sweetwater	Ft. Union Formation
ERP00404	E-224226	717JB5	Wyoming	Sweetwater	Ft. Union Formation
ERP00404	E-224227	717155A	Wyoming	Lincoln	Adaville Formation
ERP00404	E-224228	717155B	Wyoming	Lincoln	Adaville Formation
ERP00404	E-224229	717155C	Wyoming	Lincoln	Adaville Formation
ERP00404	E-224230	717155D	Wyoming	Lincoln	Adaville Formation
ERP00404	E-224231	717365A	Wyoming	Lincoln	Adaville Formation
ERP00404	E-224232	717365B	Wyoming	Lincoln	Adaville Formation
ERP00150	E-186364	19117-SF-1	Colorado	Fremont	Vermejo Formation
ERP00150	E-186365	19118-SF-2	Colorado	Fremont	Vermejo Formation
ERP00150	E-186366	19119-SF-3	Colorado	Fremont	Vermejo Formation
ERP00150	E-186367	19120-SF-4	Colorado	Fremont	Vermejo Formation
ERP00150	E-186368	19324-NH-1	Colorado	Montrose	Dakota Sandstone
ERP00150	E-186369	19326-NH-2	Colorado	Montrose	Dakota Sandstone
ERP00150	E-186370	19328-NH-3	Colorado	Montrose	Dakota Sandstone
ERP00150	E-186371	19330-NH-4	Colorado	Montrose	Dakota Sandstone
ERP00150	E-186372	19332-KC-1	Colorado	La Plata	Menefee Formation
ERP00150	E-186373	19334-KC-2	Colorado	La Plata	Menefee Formation
ERP00150	E-186374	19336-KC-3	Colorado	La Plata	Menefee Formation

Table 5. -- Proximate, ultimate and forms-of-sulfur analyses, calorific value, ash-fusion temperature
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Job number	Laboratory number	Field number	State	County	Formation
ERP00150	E-186375	19338-T-1	Colorado	Routt	Williams Fork Formation
ERP00150	E-186376	19340-T-2	Colorado	Routt	Williams Fork Formation
ERP00150	E-186377	19342-W-ROM	Colorado	Routt	Williams Fork Formation
ERP00150	E-186378	19344-S2W-A	Colorado	Routt	Williams Fork Formation
ERP00150	E-186379	19347-Y-1	Colorado	Routt	Williams Fork Formation
ERP00150	E-186380	20473-SC-1	Colorado	Delta	Mesaverde Fm., Bowie Shale Mer
ERP00150	E-186381	20474-TREA-H	Colorado	Moffat	Williams Fork Formation
ERP00150	E-186382	20475-TR-H-M	Colorado	Moffat	Williams Fork Formation
ERP00150	E-186383	20476-DS1-RM	Colorado	Rio Blanco	Mesaverde Formation
ERP00150	E-186384	20477-DS-1-S	Colorado	Rio Blanco	Mesaverde Formation
ERP00150	E-186385	20478-MC1-RM	Colorado	Garfield	Mesaverde Formation
ERP00150	E-186386	20479-BW1-CH	Colorado	Delta	Mesaverde Fm., Bowie Shale Mer
ERP00150	E-186387	20480-BW1-S	Colorado	Delta	Mesaverde Fm., Bowie Shale Mer
ERP00188	E-190603	TR-DR1-QU	Colorado	Moffat	Williams Fork Formation
ERP00188	E-190604	TR-DR2-QM	Colorado	Moffat	Williams Fork Formation
ERP00188	E-190605	Trapper-ROM	Colorado	Moffat	Williams Fork Formation
ERP00188	E-190606	CWO-W-CH	Colorado	Moffat	Williams Fork Formation
ERP00188	E-190607	CWO-ROM	Colorado	Moffat	Williams Fork Formation
ERP00188	E-190608	1-WE-Sales	Colorado	Gunnison	Mesaverde Formation
ERP00188	E-190609	San1-KC	Colorado	La Plata	Menefee Formation
ERP00188	E-190610	San2-NH	Colorado	Montrose	Dakota Sandstone
ERP00188	E-190611	San3-BW2	Colorado	Delta	Mesaverde Fm., Bowie Shale Mer
ERP00188	E-190612	San4-WE	Colorado	Gunnison	Mesaverde Formation
ERP00188	E-190613	San5-SB	Colorado	Delta	Mesaverde Fm., Bowie Shale Mer
ERP00188	E-190614	San6-MC	Colorado	Garfield	Mesaverde Formation
ERP00188	E-190615	Sen2W-01-ROM	Colorado	Routt	Williams Fork Formation
ERP00188	E-190616	Y-01-ROM	Colorado	Routt	Williams Fork Formation

Table 5. -- Proximate, ultimate and forms-of-sulfur analyses, calorific value, ash-fusion temperature
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Job number	Laboratory number	Field number	State	County	Formation
ERP00188	E-190617	FC-01-ROM	Colorado	Routt	Williams Fork Formation
ERP00276	E-203760	20451	Colorado	Gunnison	Mesaverde Formation
ERP00276	E-203761	WEM MCC	Colorado	Gunnison	Mesaverde Formation
ERP00276	E-203762	DES-01-01	Colorado	Rio Blanco	Mesaverde Formation
ERP00276	E-203763	DES-02-01	Colorado	Rio Blanco	Mesaverde Formation
ERP00276	E-203764	DES-03-01	Colorado	Rio Blanco	Mesaverde Formation
ERP00276	E-203765	CWO-01-01	Colorado	Moffat	Williams Fork Formation, C seam
ERP00276	E-203766	CWO-02-01	Colorado	Moffat	Williams Fork Formation, D seam
ERP00276	E-203767	CWO-03-01	Colorado	Moffat	Williams Fork Formation, F seam
ERP00276	E-203768	CWO-04-01	Colorado	Moffat	Williams Fork Formation, X seam
ERP00276	E-203769	CWO-05-01	Colorado	Moffat	Williams Fork Formation, B seam
ERP00276	E-203770	CWO-06-01	Colorado	Moffat	Williams Fork Formation, X bed
ERP00276	E-203771	CWO-07-01	Colorado	Moffat	Williams Fork Formation, F bed
ERP00276	E-203772	TRDR-RCHAN	Colorado	Moffat	Williams Fork Formation
ERP00276	E-203773	TRDR-QROM	Colorado	Moffat	Williams Fork Formation
ERP00276	E-203774	LOR-M-01-02	Colorado	Las Animas	Raton Formation
ERP00276	E-203775	LOR-NA-01-02	Colorado	Las Animas	Raton Formation
ERP00276	E-203776	WEM MCC2	Colorado	Gunnison	Mesaverde Formation
Interior Province					
EA52	E-000990	96-C-1H	Oklahoma	Rogers	Senora Formation
EA52	E-000991	96-C-3H	Oklahoma	Nowata	Senora Formation
EA52	E-000992	96-C-4H	Oklahoma	Craig	Senora Formation
ERP00113	E-177446	OKLA-1	Oklahoma	Okmulgee	Senora Formation
ERP00141	E-186010	OPL1143	Oklahoma	Haskell	McAlester Formation
ERP00141	E-186011	OPL1144	Oklahoma	LeFlore	Hartshorne Sandstone

Table 5. -- Proximate, ultimate and forms-of-sulfur analyses, calorific value, ash-fusion temperature
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Job number	Laboratory number	Field number	State	County	Formation
ERP00449	E-242780	OPL-1183	Oklahoma	Nowata	Senora Formation
ERP00449	E-242781	OPL-1184	Oklahoma	Craig	Senora Formation
EA05	E-000037	C34943	Illinois	Vermilion	Carbondale Formation
EB71	E-003207	C33863	Illinois	Douglas	Carbondale Formation
EB71	E-003208	C33864	Illinois	Douglas	Carbondale Formation
EB71	E-003209	C33865	Illinois	Douglas	Carbondale Formation
ERP00048	E-138332	C36488	Illinois	Jackson	Tradewater Formation
ERP00048	E-138333	C36489	Illinois	Jackson	Tradewater Formation
ERP00048	E-138334	C36490	Illinois	Jackson	Tradewater Formation
ERP00048	E-138335	C36491	Illinois	Gallatin	Carbondale Formation
ERP00048	E-138336	C36492	Illinois	Gallatin	Carbondale Formation
ERP00048	E-138337	C36493	Illinois	Gallatin	Carbondale Formation
ERP00048	E-138338	C36494	Illinois	Jackson	Carbondale Formation
EB71	E-003186	98126-1	Indiana	Posey	Dugger Formation
EB71	E-003187	98126-2	Indiana	Posey	Dugger Formation
EB71	E-003188	98126-3	Indiana	Posey	Dugger Formation
EB71	E-003189	98126-4	Indiana	Posey	Petersburg Formation
EB71	E-003190	98126-5	Indiana	Posey	Petersburg Formation
EB71	E-003191	98126-6	Indiana	Posey	Petersburg Formation
EB71	E-003192	98126-7	Indiana	Posey	Petersburg Formation
EB71	E-003193	98126-8	Indiana	Posey	Staunton Formation
EB71	E-003194	98126-9	Indiana	Posey	Staunton Formation
EB71	E-003195	98126-10	Indiana	Posey	Staunton Formation
EB71	E-003196	98126-11	Indiana	Posey	Staunton Formation
EB71	E-003197	98126-12	Indiana	Posey	Brazil Formation
EB71	E-003198	98126-13	Indiana	Posey	uncorrelated
EB71	E-003199	98126-14	Indiana	Posey	uncorrelated

Table 5. -- Proximate, ultimate and forms-of-sulfur analyses, calorific value, ash-fusion temperature
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Job number	Laboratory number	Field number	State	County	Formation
EB71	E-003200	98126-15	Indiana	Posey	uncorrelated
EB71	E-003201	98126-16	Indiana	Posey	uncorrelated
EB71	E-003202	98126-17	Indiana	Posey	uncorrelated
EB71	E-003203	98126-18	Indiana	Posey	uncorrelated
EB71	E-003204	98126-19	Indiana	Posey	uncorrelated
EB71	E-003205	98126-20	Indiana	Posey	uncorrelated
EB71	E-003206	98126-21	Indiana	Posey	uncorrelated
ERP00238	E-200392	980813B1	Indiana	Clay	Brazil Formation
ERP00238	E-200393	980813B2	Indiana	Clay	Brazil Formation
ERP00238	E-200394	980813B3	Indiana	Clay	Brazil Formation
ERP00238	E-200395	981130A1	Indiana	Greene	Brazil Formation
ERP00238	E-200396	981130A2	Indiana	Greene	Brazil Formation
ERP00238	E-200397	981130A3	Indiana	Greene	Brazil Formation
ERP00238	E-200398	981130A4	Indiana	Greene	Brazil Formation
ERP00238	E-200399	981207A1	Indiana	Greene	Brazil Formation
ERP00238	E-200400	981207A2	Indiana	Greene	Brazil Formation
ERP00238	E-200401	981207A3	Indiana	Greene	Brazil Formation
ERP00238	E-200402	981207A4	Indiana	Greene	Brazil Formation
ERP00238	E-200403	981207B1	Indiana	Greene	Brazil Formation
ERP00238	E-200404	981207B2	Indiana	Greene	Brazil Formation
ERP00238	E-200405	981207B4	Indiana	Greene	Brazil Formation
ERP00238	E-200406	10803A1,0-63	Indiana	Parke	Brazil Formation
ERP00238	E-200407	10803A1,1.6	Indiana	Parke	Brazil Formation
ERP00238	E-200408	10803A2,63-94	Indiana	Parke	Brazil Formation
ERP00238	E-200409	10803A2,1.6	Indiana	Parke	Brazil Formation
ERP00238	E-200410	10803A3,94-131	Indiana	Parke	Brazil Formation
ERP00238	E-200411	10803A3,1.6	Indiana	Parke	Brazil Formation

Table 5. -- Proximate, ultimate and forms-of-sulfur analyses, calorific value, ash-fusion temperature
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Job number	Laboratory number	Field number	State	County	Formation
ERP00238	E-200412	10803B1,0-28	Indiana	Parke	Brazil Formation
ERP00238	E-200413	10803B1,1.6	Indiana	Parke	Brazil Formation
ERP00238	E-200414	10803B2,28-53	Indiana	Parke	Brazil Formation
ERP00238	E-200415	10803B2,1.6	Indiana	Parke	Brazil Formation
ERP00238	E-200416	10803B3,53-73	Indiana	Parke	Brazil Formation
ERP00238	E-200417	10803B3,1.6	Indiana	Parke	Brazil Formation
ERP00238	E-200418	10724C1,0-33	Indiana	Sullivan	Dugger Formation
ERP00238	E-200419	10724C1,1.5	Indiana	Sullivan	Dugger Formation
ERP00238	E-200420	10724C2,33-69	Indiana	Sullivan	Dugger Formation
ERP00238	E-200421	10724C2,1.5	Indiana	Sullivan	Dugger Formation
ERP00238	E-200422	10724C3,69-96	Indiana	Sullivan	Dugger Formation
ERP00238	E-200423	10724C3,1.5	Indiana	Sullivan	Dugger Formation
ERP00238	E-200424	10724C4,96-117	Indiana	Sullivan	Dugger Formation
ERP00238	E-200425	10724C4,1.5	Indiana	Sullivan	Dugger Formation
ERP00238	E-200426	981130A3D	Indiana	Greene	Brazil Formation
ERP00238	E-200427	10803A1,1.6D	Indiana	Parke	Brazil Formation
ERP00238	E-200428	10803B3,1.6D	Indiana	Parke	Brazil Formation
ERP00239	E-200429	10724B1,0-34	Indiana	Sullivan	Dugger Formation
ERP00239	E-200430	10724B1,1.5	Indiana	Sullivan	Dugger Formation
ERP00239	E-200431	10724B2,34-70	Indiana	Sullivan	Dugger Formation
ERP00239	E-200432	10724B2,1.5	Indiana	Sullivan	Dugger Formation
ERP00239	E-200433	10724B3,70-93	Indiana	Sullivan	Dugger Formation
ERP00239	E-200434	10724B3,1.5	Indiana	Sullivan	Dugger Formation
ERP00239	E-200435	107241,0-34	Indiana	Sullivan	Dugger Formation
ERP00239	E-200436	107241,1.5	Indiana	Sullivan	Dugger Formation
ERP00239	E-200437	107242,34-63	Indiana	Sullivan	Dugger Formation
ERP00239	E-200438	107242,1.5	Indiana	Sullivan	Dugger Formation

Table 5. -- Proximate, ultimate and forms-of-sulfur analyses, calorific value, ash-fusion temperature
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Job number	Laboratory number	Field number	State	County	Formation
ERP00239	E-200439	107243,65-97	Indiana	Sullivan	Dugger Formation
ERP00239	E-200440	107243,1.5	Indiana	Sullivan	Dugger Formation
ERP00239	E-200441	11006A1,0-15	Indiana	Knox	Dugger Formation
ERP00239	E-200442	11006A1,1.6	Indiana	Knox	Dugger Formation
ERP00239	E-200443	11006A2,15-43	Indiana	Knox	Dugger Formation
ERP00239	E-200444	11006A2,1.6	Indiana	Knox	Dugger Formation
ERP00239	E-200445	11006A3,43-103	Indiana	Knox	Dugger Formation
ERP00239	E-200446	11006A3,1.6	Indiana	Knox	Dugger Formation
ERP00239	E-200447	11006A4,103-148	Indiana	Knox	Dugger Formation
ERP00239	E-200448	11006A4, 1.6	Indiana	Knox	Dugger Formation
ERP00239	E-200449	11006AQ, MTRaw	Indiana	Knox	Dugger Formation
ERP00239	E-200450	11006AQ, MT1.6	Indiana	Knox	Dugger Formation
ERP00239	E-200451	11027A1,0-22	Indiana	Spencer	Mansfield Formation
ERP00239	E-200452	11027A1,1.6	Indiana	Spencer	Mansfield Formation
ERP00239	E-200453	11027A2,22-42	Indiana	Spencer	Mansfield Formation
ERP00239	E-200454	11027A2,1.6	Indiana	Spencer	Mansfield Formation
ERP00239	E-200455	11027A3,44-68	Indiana	Spencer	Mansfield Formation
ERP00239	E-200456	11027A3,1.6	Indiana	Spencer	Mansfield Formation
ERP00239	E-200457	11106A1,0-24	Indiana	Spencer	Brazil Formation
ERP00239	E-200458	11106A1,1.6	Indiana	Spencer	Brazil Formation
ERP00239	E-200459	11106A2,24-47	Indiana	Spencer	Brazil Formation
ERP00239	E-200460	11106A2,1.6	Indiana	Spencer	Brazil Formation
ERP00239	E-200461	11106A3,47-57	Indiana	Spencer	Brazil Formation
ERP00239	E-200462	11106A3,1.6	Indiana	Spencer	Brazil Formation
ERP00239	E-200463	11106A4,57-77	Indiana	Spencer	Brazil Formation
ERP00239	E-200464	11106A4,1.6	Indiana	Spencer	Brazil Formation
ERP00239	E-200465	11106A1,1.6D	Indiana	Spencer	Brazil Formation

Table 5. -- Proximate, ultimate and forms-of-sulfur analyses, calorific value, ash-fusion temperature
[blank space indicates no data or not analyzed, ar = as-received basis]

Job number	Laboratory number	Field number	State	County	Formation
ERP00239	E-200466	10724B2,34-70D	Indiana	Sullivan	Dugger Formation
ERP00239	E-200467	107242,1.5D	Indiana	Sullivan	Dugger Formation
ERP00255	E-201895	10807A1	Indiana	Greene	Brazil Formation
ERP00255	E-201896	10807A1,1.6	Indiana	Greene	Brazil Formation
ERP00255	E-201897	10807A2	Indiana	Greene	Brazil Formation
ERP00255	E-201898	10807A2,1.6	Indiana	Greene	Brazil Formation
ERP00255	E-201899	10807A3	Indiana	Greene	Brazil Formation
ERP00255	E-201900	10807A3,1.6	Indiana	Greene	Brazil Formation
ERP00255	E-201901	10807B1	Indiana	Greene	Mansfield Formation
ERP00255	E-201902	10807B1,1.6	Indiana	Greene	Mansfield Formation
ERP00255	E-201903	10807B2	Indiana	Greene	Mansfield Formation
ERP00255	E-201904	10807B2,1.6	Indiana	Greene	Mansfield Formation
ERP00255	E-201905	10807B3	Indiana	Greene	Mansfield Formation
ERP00255	E-201906	10807B3,1.6	Indiana	Greene	Mansfield Formation
ERP00255	E-201907	10807B4	Indiana	Greene	Mansfield Formation
ERP00255	E-201908	10807B4,1.6	Indiana	Greene	Mansfield Formation
ERP00255	E-201909	CulleyMillB3	Indiana	Spencer	
ERP00255	E-201910	CulleyMillC3	Indiana	Spencer	
ERP00255	E-201911	CulleyMillE3	Indiana	Spencer	
ERP00255	E-201912	CulleyMillB2	Indiana	Spencer	
ERP00255	E-201913	CulleyMillA2	Indiana	Spencer	
ERP00255	E-201914	GEboiler1	Indiana	Knox	
ERP00255	E-201915	GEboiler2	Indiana	Knox	
ERP00255	E-201916	AQProduct	Indiana	Knox	
ERP00255	E-201917	11113A1	Indiana	Warrick	Petersburg Formation
ERP00255	E-201918	11113A1,1.5	Indiana	Warrick	Petersburg Formation
ERP00255	E-201919	11113A2	Indiana	Warrick	Petersburg Formation

Table 5. -- Proximate, ultimate and forms-of-sulfur analyses, calorific value, ash-fusion temperature
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Job number	Laboratory number	Field number	State	County	Formation
ERP00255	E-201920	11113A2,1.5	Indiana	Warrick	Petersburg Formation
ERP00255	E-201921	11113A4	Indiana	Warrick	Petersburg Formation
ERP00255	E-201922	11113A4,1.5	Indiana	Warrick	Petersburg Formation
ERP00255	E-201923	11113A5	Indiana	Warrick	Petersburg Formation
ERP00255	E-201924	11113A5,1.5	Indiana	Warrick	Petersburg Formation
ERP00255	E-201925	11113A6	Indiana	Warrick	Petersburg Formation
ERP00255	E-201926	11113A6,1.5	Indiana	Warrick	Petersburg Formation
ERP00255	E-201927	10807A2D	Indiana	Greene	Brazil Formation
ERP00255	E-201928	11113A4D	Indiana	Warrick	Petersburg Formation
ERP00256	E-201929	GEboiler2-2	Indiana	Knox	
ERP00256	E-201930	GEboiler2-4	Indiana	Knox	
ERP00256	E-201931	GEboiler2-6	Indiana	Knox	
ERP00256	E-201932	GEboiler2-8	Indiana	Knox	
ERP00256	E-201933	GEboiler1-1	Indiana	Knox	
ERP00256	E-201934	GEboiler1-3	Indiana	Knox	
ERP00256	E-201935	GEboiler1-5	Indiana	Knox	
ERP00256	E-201936	GEboiler1-7	Indiana	Knox	
ERP00256	E-201937	Geunit1-rph	Indiana	Knox	
ERP00256	E-201938	CulleyUnit3E	Indiana	Spencer	
ERP00256	E-201939	CulleyUnit3W	Indiana	Spencer	
ERP00256	E-201940	CulleyUnit2E	Indiana	Spencer	
ERP00256	E-201941	Culley2+3FGD	Indiana	Spencer	
ERP00256	E-201942	GEboiler2-4D	Indiana	Knox	
ERP00277	E-203777	10803C1,0-30	Indiana	Clay	Brazil Formation
ERP00277	E-203778	10803C1,1.6	Indiana	Clay	Brazil Formation
ERP00277	E-203779	10803C2,30-52	Indiana	Clay	Brazil Formation
ERP00277	E-203780	10803C2,1.6	Indiana	Clay	Brazil Formation

Table 5. -- Proximate, ultimate and forms-of-sulfur analyses, calorific value, ash-fusion temperature
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Job number	Laboratory number	Field number	State	County	Formation
ERP00277	E-203781	10803C3,52-86	Indiana	Clay	Brazil Formation
ERP00277	E-203782	10803C3,1.6	Indiana	Clay	Brazil Formation
ERP00277	E-203783	10803C4,86-110	Indiana	Clay	Brazil Formation
ERP00277	E-203784	10803C4,1.6	Indiana	Clay	Brazil Formation
ERP00277	E-203785	10724D1,0-26	Indiana	Clay	Mansfield Formation
ERP00277	E-203786	10724D1,1.5	Indiana	Clay	Mansfield Formation
ERP00277	E-203787	10724D2,26-48	Indiana	Clay	Mansfield Formation
ERP00277	E-203788	10724D2,1.5	Indiana	Clay	Mansfield Formation
ERP00277	E-203789	10724D3,50-62	Indiana	Clay	Mansfield Formation
ERP00277	E-203790	10724D3,1.5	Indiana	Clay	Mansfield Formation
ERP00277	E-203791	10803C1,0-30D	Indiana	Clay	Brazil Formation
ERP00313	E-209604	205241 0-27	Indiana	Gibson	Dugger Formation
ERP00313	E-209605	205241 Float	Indiana	Gibson	Dugger Formation
ERP00313	E-209606	205242 27-61	Indiana	Gibson	Dugger Formation
ERP00313	E-209607	205242 Float	Indiana	Gibson	Dugger Formation
ERP00313	E-209608	205243 61-89	Indiana	Gibson	Dugger Formation
ERP00313	E-209609	205243 Float	Indiana	Gibson	Dugger Formation
ERP00313	E-209610	20524FC 0-89	Indiana	Gibson	Dugger Formation
ERP00313	E-209611	20524FC Float	Indiana	Gibson	Dugger Formation
ERP00313	E-209612	205291 0-33	Indiana	Gibson	Petersburg Formation
ERP00313	E-209613	205291 Float	Indiana	Gibson	Petersburg Formation
ERP00313	E-209614	205292 33-74	Indiana	Gibson	Petersburg Formation
ERP00313	E-209615	205292 Float	Indiana	Gibson	Petersburg Formation
ERP00313	E-209616	205293 74-103	Indiana	Gibson	Petersburg Formation
ERP00313	E-209617	205293 Float	Indiana	Gibson	Petersburg Formation
ERP00313	E-209618	205294 103-143	Indiana	Gibson	Petersburg Formation
ERP00313	E-209619	205294 Float	Indiana	Gibson	Petersburg Formation

Table 5. -- Proximate, ultimate and forms-of-sulfur analyses, calorific value, ash-fusion temperature
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Job number	Laboratory number	Field number	State	County	Formation
ERP00313	E-209620	20524FC FloatD	Indiana	Gibson	Dugger Formation
ERP00313	E-209621	205294 103-143D	Indiana	Gibson	Petersburg Formation
ERP00426	E-229090	20031009-1R	Indiana	Gibson	Petersburg Formation
ERP00426	E-229091	20031009-1F	Indiana	Gibson	Petersburg Formation
ERP00426	E-229092	20031009-2R	Indiana	Gibson	Petersburg Formation
ERP00426	E-229093	20031009-2F	Indiana	Gibson	Petersburg Formation
ERP00426	E-229094	20031009-3R	Indiana	Gibson	Petersburg Formation
ERP00426	E-229095	20031009-3F	Indiana	Gibson	Petersburg Formation
ERP00426	E-229096	20031009-4R	Indiana	Gibson	Petersburg Formation
ERP00426	E-229097	20031009-4F	Indiana	Gibson	Petersburg Formation
ERP00426	E-229098	20030214-1	Indiana	Knox	Dugger Formation
ERP00426	E-229099	20030214-2	Indiana	Knox	Dugger Formation
ERP00426	E-229100	20030214-3	Indiana	Knox	Dugger Formation
ERP00426	E-229101	20030214-4	Indiana	Knox	Dugger Formation
ERP00426	E-229102	20030321-A1	Indiana	Daviess	Brazil Formation
ERP00426	E-229103	20030321-A2	Indiana	Daviess	Brazil Formation
ERP00426	E-229104	20030321-A3	Indiana	Daviess	Brazil Formation
ERP00426	E-229105	20030321-A4	Indiana	Daviess	Brazil Formation
ERP00426	E-229106	20030321-B1	Indiana	Daviess	Brazil Formation
ERP00426	E-229107	20030321-B2	Indiana	Daviess	Brazil Formation
ERP00426	E-229108	20030321-B3	Indiana	Daviess	Brazil Formation
ERP00426	E-229109	20030321-B4	Indiana	Daviess	Brazil Formation
ERP00426	E-229110	20030321-C1	Indiana	Daviess	Brazil Formation
ERP00426	E-229111	20030321-C2	Indiana	Daviess	Brazil Formation
ERP00426	E-229113	20030321-C4	Indiana	Daviess	Brazil Formation
ERP00426	E-229114	20030321-C5	Indiana	Daviess	Brazil Formation
ERP00434	E-230453	20031028D-1R	Indiana	Gibson	Petersburg Formation

Table 5. -- Proximate, ultimate and forms-of-sulfur analyses, calorific value, ash-fusion temperature
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Job number	Laboratory number	Field number	State	County	Formation
ERP00434	E-230454	20031028D-1F	Indiana	Gibson	Petersburg Formation
ERP00434	E-230455	20031028D-2R	Indiana	Gibson	Petersburg Formation
ERP00434	E-230456	20031028D-2F	Indiana	Gibson	Petersburg Formation
ERP00434	E-230457	20031028D-3R	Indiana	Gibson	Petersburg Formation
ERP00434	E-230458	20031028D-3F	Indiana	Gibson	Petersburg Formation
ERP00434	E-230459	20031028D-4R	Indiana	Gibson	Petersburg Formation
ERP00434	E-230460	20031028D-4F	Indiana	Gibson	Petersburg Formation
ERP00434	E-230461	2698001-R	Indiana	Gibson	Staunton Formation
ERP00434	E-230462	2698002-F	Indiana	Gibson	Staunton Formation
ERP00434	E-230463	2698004-R	Indiana	Gibson	Staunton Formation
ERP00434	E-230464	2698005-F	Indiana	Gibson	Staunton Formation
ERP00434	E-230465	2698007-R	Indiana	Gibson	Staunton Formation
ERP00434	E-230466	2698008-F	Indiana	Gibson	Staunton Formation
ERP00434	E-230467	2698010-R	Indiana	Gibson	Staunton Formation
ERP00434	E-230468	2698011-F	Indiana	Gibson	Staunton Formation
ERP00434	E-230469	2698013-R	Indiana	Gibson	Staunton Formation
ERP00434	E-230470	2698014-F	Indiana	Gibson	Staunton Formation
ERP00434	E-230471	2698016-R	Indiana	Gibson	Staunton Formation
ERP00434	E-230472	2698017-F	Indiana	Gibson	Staunton Formation
ERP00434	E-230473	2698019-R	Indiana	Gibson	Staunton Formation
ERP00434	E-230474	2698020-F	Indiana	Gibson	Staunton Formation
ERP00434	E-230475	2698022-R	Indiana	Gibson	Staunton Formation
ERP00434	E-230476	2698023-F	Indiana	Gibson	Staunton Formation
ERP00434	E-230477	20031028A-1R	Indiana	Gibson	Dugger Formation
ERP00434	E-230478	20031028A-1F	Indiana	Gibson	Dugger Formation
ERP00434	E-230479	20031028A-2R	Indiana	Gibson	Dugger Formation
ERP00434	E-230480	20031028A-2F	Indiana	Gibson	Dugger Formation

Table 5. -- Proximate, ultimate and forms-of-sulfur analyses, calorific value, ash-fusion temperature
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Job number	Laboratory number	Field number	State	County	Formation
ERP00434	E-230481	20031028A-3R	Indiana	Gibson	Dugger Formation
ERP00434	E-230482	20031028A-3F	Indiana	Gibson	Dugger Formation
ERP00434	E-230483	20031028B-1R	Indiana	Gibson	Dugger Formation
ERP00434	E-230484	20031028B-1F	Indiana	Gibson	Dugger Formation
ERP00434	E-230485	20031028B-2R	Indiana	Gibson	Dugger Formation
ERP00434	E-230486	20031028B-2F	Indiana	Gibson	Dugger Formation
ERP00434	E-230487	20031028B-3R	Indiana	Gibson	Dugger Formation
ERP00434	E-230488	20031028B-3F	Indiana	Gibson	Dugger Formation
ERP00434	E-230489	20031028B-4R	Indiana	Gibson	Dugger Formation
ERP00434	E-230490	20031028B-4F	Indiana	Gibson	Dugger Formation
ERP00434	E-230491	20031028C-R	Indiana	Gibson	Shelburn
ERP00434	E-230492	20031028C-F	Indiana	Gibson	Shelburn
ERP00650	06500001	BigRun1	Kentucky	Ohio	Unknown
ERP00650	06500002	DC0410WKY10	Kentucky	Webster	Carbondale Formation
ERP00650	06500003	DC0410WKY13Ba	Kentucky	Webster	Shelburn Formation
ERP00650	06500004	DC0410WKY9A	Kentucky	Webster	Carbondale Formation
ERP00650	06500005	DC0410WKY9B	Kentucky	Webster	Carbondale Formation
ERP00650	06500006	DC0410WKY9C	Kentucky	Webster	Carbondale Formation
ERP00650	06500007	DC0410WKY9RR	Kentucky	Webster	Carbondale Formation
ERP00650	06500008	DC049WKY10	Kentucky	Webster	Carbondale Formation
ERP00650	06500009	DC049WKY13A	Kentucky	Webster	Shelburn Formation
ERP00650	06500010	DC049WKY13B	Kentucky	Webster	Shelburn Formation
ERP00650	06500011	DC049WKY13C	Kentucky	Webster	Shelburn Formation
ERP00650	06500012	DC049WKY9A	Kentucky	Webster	Carbondale Formation
ERP00650	06500013	DC049WKY9B	Kentucky	Webster	Carbondale Formation
ERP00650	06500014	DC049WKY9C	Kentucky	Webster	Carbondale Formation
ERP00650	06500015	DC049WKY9RR	Kentucky	Webster	Carbondale Formation

Table 5. -- Proximate, ultimate and forms-of-sulfur analyses, calorific value, ash-fusion temperature
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Job number	Laboratory number	Field number	State	County	Formation
ERP00650	06500016	P42WKY6Davis	Kentucky	Hopkins	Carbondale Formation
ERP00650	06500017	P42WKY6DavisRF	Kentucky	Hopkins	Carbondale Formation
ERP00650	06500018	P42WKY8B1	Kentucky	Hopkins	Carbondale Formation
ERP00650	06500019	P42WKY8B2	Kentucky	Hopkins	Carbondale Formation
ERP00650	06500020	P42WKY9A	Kentucky	Hopkins	Carbondale Formation
ERP00650	06500021	P42WKY9B	Kentucky	Hopkins	Carbondale Formation
ERP00650	06500022	P42WKY9C	Kentucky	Hopkins	Carbondale Formation
ERP00650	06500023	P42WKY9RR	Kentucky	Hopkins	Carbondale Formation
ERP00650	06500024	P42WKYColch	Kentucky	Hopkins	Carbondale Formation
ERP00650	06500025	P42WKYColchRR	Kentucky	Hopkins	Carbondale Formation
ERP00650	06500026	P42WKY11A	Kentucky	Hopkins	Shelburn Formation
ERP00650	06500027	P42WKY11B	Kentucky	Hopkins	Shelburn Formation
ERP00650	06500028	P42WKY11C	Kentucky	Hopkins	Shelburn Formation
ERP00650	06500029	P42WKY11D	Kentucky	Hopkins	Shelburn Formation
Eastern Province					
ERP00249	E-201622	92789C	Kentucky	Pulaski	
ERP00249	E-201623	92790C	Kentucky	Pulaski	
ERP00249	E-201624	92807C	Kentucky	Pulaski	
ERP00249	E-201625	92808C	Kentucky	Pulaski	
ERP00249	E-201626	92809C	Kentucky	Pulaski	
ERP00249	E-201627	92810C	Kentucky	Pulaski	
ERP00249	E-201628	92811C	Kentucky	Pulaski	
ERP00249	E-201629	92812C	Kentucky	Pulaski	
ERP00249	E-201630	5498C	Kentucky	Knox	Breathitt Formation
ERP00249	E-201631	5499C	Kentucky	Knox	Breathitt Formation

Table 5. -- Proximate, ultimate and forms-of-sulfur analyses, calorific value, ash-fusion temperature
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Job number	Laboratory number	Field number	State	County	Formation
ERP00249	E-201632	5500C	Kentucky	Knox	Breathitt Formation
ERP00249	E-201633	5501C	Kentucky	Knox	Breathitt Formation
ERP00249	E-201634	5502C	Kentucky	Knox	Breathitt Formation
ERP00249	E-201635	5503C	Kentucky	Knox	Breathitt Formation
ERP00249	E-201636	5504C	Kentucky	Knox	Breathitt Formation
ERP00249	E-201637	92790D	Kentucky	Pulaski	
ERP00249	E-201638	5498D	Kentucky	Knox	Breathitt Formation
ERP00250	E-201639	92791A	Kentucky	Pulaski	
ERP00250	E-201640	92792A	Kentucky	Pulaski	
ERP00250	E-201641	92793A	Kentucky	Pulaski	
ERP00250	E-201642	92794A	Kentucky	Pulaski	
ERP00250	E-201643	92795A	Kentucky	Pulaski	
ERP00250	E-201644	92796A	Kentucky	Pulaski	
ERP00250	E-201645	92797A	Kentucky	Pulaski	
ERP00250	E-201646	92798A	Kentucky	Pulaski	
ERP00250	E-201647	92799A	Kentucky	Pulaski	
ERP00250	E-201648	92800A	Kentucky	Pulaski	
ERP00250	E-201649	92801A	Kentucky	Pulaski	
ERP00250	E-201650	92802A	Kentucky	Pulaski	
ERP00250	E-201651	92803A	Kentucky	Pulaski	
ERP00250	E-201652	92804A	Kentucky	Pulaski	
ERP00250	E-201653	92805A	Kentucky	Pulaski	
ERP00250	E-201654	92806A	Kentucky	Pulaski	
ERP00250	E-201655	92794D	Kentucky	Pulaski	
ERP00250	E-201656	92802D	Kentucky	Pulaski	
ERP00423	E-227705	PAS 1321-1	Pennsylvania	Elk	Allegheny Formation
ERP00423	E-227706	PAS 1321-2	Pennsylvania	Elk	Allegheny Formation

Table 5. -- Proximate, ultimate and forms-of-sulfur analyses, calorific value, ash-fusion temperature
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Job number	Laboratory number	Field number	State	County	Formation
ERP00423	E-227707	PAS 1322	Pennsylvania	Elk	Allegheny Formation
ERP00423	E-227708	PAS 1400	Pennsylvania	Somerset	Allegheny Formation
ERP00423	E-227709	PAS 1401	Pennsylvania	Somerset	Allegheny Formation
ERP00423	E-227710	PAS 1402	Pennsylvania	Somerset	Allegheny Formation
ERP00423	E-227711	PAS 1403	Pennsylvania	Somerset	Allegheny Formation
ERP00423	E-227712	PAS 1404	Pennsylvania	Somerset	Allegheny Formation
ERP00423	E-227713	PAS 1405	Pennsylvania	Somerset	Monongahela Group
ERP00423	E-227714	PAS 1406	Pennsylvania	Somerset	Monongahela Group
ERP00423	E-227715	PAS 1407	Pennsylvania	Somerset	Allegheny Formation
ERP00423	E-227716	PAS 1408	Pennsylvania	Somerset	Allegheny Formation
ERP00423	E-227717	PAS 1409	Pennsylvania	Somerset	Monongahela Group
ERP00423	E-227718	PAS 1410	Pennsylvania	Somerset	Monongahela Group
ERP00423	E-227719	PAS 1411	Pennsylvania	Somerset	Allegheny Formation
ERP00423	E-227720	PAS 1412	Pennsylvania	Somerset	Allegheny Formation
ERP00423	E-227721	PAS 1413	Pennsylvania	Somerset	Allegheny Formation
ERP00423	E-227722	PAS 1414	Pennsylvania	Somerset	Allegheny Formation
ERP00423	E-227723	PAS 1415	Pennsylvania	Somerset	Allegheny Formation
ERP00423	E-227724	PAS 1416	Pennsylvania	Somerset	Allegheny Formation
ERP00423	E-227725	PAS 1417	Pennsylvania	Somerset	Monongahela Group
ERP00423	E-227726	PAS 1418	Pennsylvania	Somerset	Monongahela Group
ERP00423	E-227727	PAS 1419	Pennsylvania	Somerset	Allegheny Formation
ERP00427	E-229115	PAS 1420	Pennsylvania	Elk	Allegheny Formation
ERP00427	E-229116	PAS 1421	Pennsylvania	Elk	Allegheny Formation
ERP00427	E-229117	PAS 1422	Pennsylvania	Elk	Allegheny Formation
ERP00427	E-229118	PAS 1423	Pennsylvania	Elk	Allegheny Formation
ERP00427	E-229119	PAS 1424	Pennsylvania	Elk	Allegheny Formation
ERP00427	E-229120	PAS 1425	Pennsylvania	Washington	Monongahela Group

Table 5. -- Proximate, ultimate and forms-of-sulfur analyses, calorific value, ash-fusion temperature
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Job number	Laboratory number	Field number	State	County	Formation
ERP00427	E-229121	PAS 1426	Pennsylvania	Washington	Monongahela Group
ERP00427	E-229122	PAS 1427	Pennsylvania	Washington	Monongahela Group
ERP00427	E-229123	PAS 1428	Pennsylvania	Washington	Monongahela Group
ERP00427	E-229124	PAS 1429	Pennsylvania	Washington	Monongahela Group
ERP00424	E-227728	DUN-413	Tennessee	Anderson	Breathitt Formation
ERP00424	E-227729	EAG-68	Tennessee	Claiborne	Breathitt Formation
ERP00424	E-227730	NEM-2041	Tennessee	Fentress	Lee Formation
ERP00424	E-227731	PEW-2438	Tennessee	Scott	Breathitt Formation
ERP00424	E-227732	RICH-51	Tennessee	Cumberland	Lee Formation
ERP00424	E-227733	CAR-0315	Tennessee	Morgan	Lee Formation
ERP00424	E-227734	WAL-2182	Tennessee	Scott	Breathitt Formation
ERP00424	E-227735	STR-1389	Tennessee	Claiborne	Breathitt Formation
ERP00424	E-227736	EAG-96S TOP	Tennessee	Claiborne	Breathitt Formation
ERP00424	E-227737	EAG-96S BTM	Tennessee	Claiborne	Breathitt Formation
ERP00063	E-141556	WVGS#18883	West Virginia	Marion	Monongahela Group
ERP00063	E-141557	WVGS#18493	West Virginia	Boone	Allegheny Formation
ERP00063	E-141558	WVGS#18505	West Virginia	Boone	Allegheny Formation
ERP00063	E-141559	WVGS#18471	West Virginia	Boone	Allegheny Formation
ERP00063	E-141560	WVGS#18485	West Virginia	Kanawha	Allegheny Formation
ERP00063	E-141561	WVGS#18879	West Virginia	Kanawha	Kanawha Formation
ERP00063	E-141562	WVGS#18882	West Virginia	Kanawha	Kanawha Formation
ERP00063	E-141563	WVGS#18881	West Virginia	Kanawha	Kanawha Formation
ERP00063	E-141564	WVGS#18919	West Virginia	Nicholas	Kanawha Formation
ERP00063	E-141565	WVGS#18852	West Virginia	Webster	Kanawha Formation
ERP00063	E-141566	WVGS#18854	West Virginia	Webster	Kanawha Formation
ERP00063	E-141567	WVGS#18245	West Virginia	Mingo	Kanawha Formation
ERP00063	E-141568	WVGS#18926	West Virginia	Nicholas	Kanawha Formation

Table 5. -- Proximate, ultimate and forms-of-sulfur analyses, calorific value, ash-fusion temperature
[blank space indicates no data or not analyzed, ar = as-received basis]

Job number	Laboratory number	Field number	State	County	Formation
ERP00063	E-141569	WVGS#18923	West Virginia	Nicholas	Kanawha Formation
ERP00063	E-141570	WVGS#18609	West Virginia	Boone	Kanawha Formation
ERP00063	E-141571	WVGS#18340	West Virginia	Kanawha	Kanawha Formation
ERP00063	E-141572	WVGS#18456	West Virginia	Kanawha	Kanawha Formation
ERP00063	E-141573	WVGS#18457	West Virginia	Kanawha	Kanawha Formation
ERP00063	E-141574	WVGS#18458	West Virginia	Kanawha	Kanawha Formation
ERP00063	E-141575	WVGS#18443	West Virginia	Kanawha	Kanawha Formation
ERP00063	E-141576	WVGS#18423	West Virginia	Wayne	Allegheny Formation
ERP00063	E-141577	WVGS#18436	West Virginia	Wayne	Allegheny Formation
ERP00063	E-141578	WVGS#18847	West Virginia	Webster	Kanawha Formation
ERP00063	E-141579	WVGS#18850	West Virginia	Webster	Kanawha Formation
ERP00063	E-141580	WVGS#18928	West Virginia	Nicholas	Kanawha Formation
ERP00063	E-141581	WVGS#18907	West Virginia	Nicholas	Kanawha Formation
ERP00063	E-141582	WVGS#18611	West Virginia	Boone	Kanawha Formation
ERP00063	E-141583	WVGS#18596	West Virginia	Boone	Kanawha Formation
ERP00063	E-141584	WVGS#18265	West Virginia	Mingo	Kanawha Formation
ERP00063	E-141585	WVGS#18300	West Virginia	Mingo	Allegheny Formation
ERP00063	E-141586	WVGS#18308	West Virginia	Mingo	Allegheny Formation
ERP00075	E-159650	WVGS#18858	West Virginia	Harrison	Monongahela Group
ERP00075	E-159651	WVGS#18855	West Virginia	Grant	Conemaugh Formation
ERP00075	E-159652	WVGS#18869	West Virginia	Preston	Allegheny Formation
ERP00075	E-159653	WVGS#1184	West Virginia	Fayette	Allegheny Formation
ERP00075	E-159654	WVGS#18218	West Virginia	Mingo	Allegheny Formation
ERP00075	E-159655	WVGS#18327	West Virginia	Kanawha	Kanawha Formation
ERP00075	E-159656	WVGS#11497	West Virginia	Raleigh	Kanawha Formation
ERP00075	E-159657	WVGS#18449	West Virginia	Kanawha	Kanawha Formation
ERP00075	E-159658	WVGS#9696	West Virginia	Kanawha	Kanawha Formation

Table 5. -- Proximate, ultimate and forms-of-sulfur analyses, calorific value, ash-fusion temperature
[blank space indicates no data or not analyzed, ar = as-received basis]

Job number	Laboratory number	Field number	State	County	Formation
ERP00075	E-159659	WVGS#15952	West Virginia	Webster	Kanawha Formation
ERP00075	E-159660	WVGS#15986	West Virginia	Webster	Kanawha Formation
ERP00075	E-159661	WVGS#18873	West Virginia	Monongalia	Monongahela Group
ERP00075	E-159662	WVGS#18875	West Virginia	Monongalia	Monongahela Group
ERP00075	E-159663	WVGS#18857	West Virginia	Monongalia	Monongahela Group
ERP00075	E-159664	WVGS#18865	West Virginia	Monongalia	Monongahela Group
ERP00075	E-159665	WVGS#18862	West Virginia	Monongalia	Monongahela Group
ERP00075	E-159666	WVGS#18859	West Virginia	Harrison	Monongahela Group
ERP00075	E-159667	WVGS#18866	West Virginia	Grant	Conemaugh Formation
ERP00075	E-159668	WVGS#18867	West Virginia	Grant	Conemaugh Formation
ERP00075	E-159669	WVGS#18868	West Virginia	Grant	Allegheny Formation
ERP00075	E-159670	WVGS#18872	West Virginia	Preston	Allegheny Formation
ERP00075	E-159671	WVGS#18870	West Virginia	Preston	Allegheny Formation
ERP00075	E-159672	WVGS#18449B	West Virginia	Kanawha	Kanawha Formation
ERP00076	E-159673	WVGS#18904	West Virginia	Boone	Kanawha Formation
ERP00076	E-159674	WVGS#11506	West Virginia	Boone	Allegheny Formation
ERP00076	E-159675	WVGS#11505	West Virginia	Boone	Allegheny Formation
ERP00076	E-159676	WVGS#11503	West Virginia	Boone	Allegheny Formation
ERP00076	E-159677	WVGS#11502	West Virginia	Boone	Kanawha Formation
ERP00076	E-159678	WVGS#11500	West Virginia	Boone	Kanawha Formation
ERP00076	E-159679	WVGS#11499	West Virginia	Boone	Kanawha Formation
ERP00076	E-159680	WVGS#11498	West Virginia	Boone	Kanawha Formation
ERP00076	E-159681	WVGS#18902	West Virginia	Boone	Kanawha Formation
ERP00076	E-159682	WVGS#18903	West Virginia	Boone	Kanawha Formation
ERP00076	E-159683	WVGS#18991	West Virginia	Boone	Kanawha Formation
ERP00076	E-159684	WVGS#18905	West Virginia	Boone	Kanawha Formation
ERP00076	E-159685	WVGS#7798	West Virginia	Nicholas	Kanawha Formation

Table 5. -- Proximate, ultimate and forms-of-sulfur analyses, calorific value, ash-fusion temperature
[blank space indicates no data or not analyzed, ar = as-received basis]

Job number	Laboratory number	Field number	State	County	Formation
ERP00076	E-159686	WVGS#7767	West Virginia	Nicholas	Kanawha Formation
ERP00076	E-159687	WVGS#7796	West Virginia	Nicholas	Kanawha Formation
ERP00076	E-159688	WVGS#7784	West Virginia	Nicholas	Kanawha Formation
ERP00076	E-159689	WVGS#7782	West Virginia	Nicholas	Kanawha Formation
ERP00076	E-159690	WVGS#7775	West Virginia	Nicholas	Kanawha Formation
ERP00076	E-159691	WVGS#7792	West Virginia	Nicholas	Kanawha Formation
ERP00076	E-159692	WVGS#18610	West Virginia	Boone	Kanawha Formation
ERP00076	E-159693	WVGS#9697	West Virginia	Boone	Allegheny Formation
ERP00076	E-159694	WVGS#18902B	West Virginia	Boone	Kanawha Formation
ERP00128	E-183433	WVGS#19478	West Virginia	Boone	Kanawha Formation
ERP00128	E-183434	WVGS#19479	West Virginia	Lincoln	Kanawha Formation
ERP00128	E-183435	WVGS#19483	West Virginia	Lincoln	Allegheny Formation
ERP00128	E-183436	WVGS#19484	West Virginia	Lincoln	Allegheny Formation
ERP00128	E-183437	WVGS#19485	West Virginia	Boone	Kanawha Formation
ERP00128	E-183438	WVGS#19486	West Virginia	Boone	Kanawha Formation
ERP00128	E-183439	WVGS#19488	West Virginia	Boone	Allegheny Formation
ERP00128	E-183440	WVGS#19489	West Virginia	Boone	Kanawha Formation
ERP00128	E-183441	WVGS#19491	West Virginia	Boone	Kanawha Formation
ERP00128	E-183442	WVGS#19492	West Virginia	Lincoln	Kanawha Formation
ERP00128	E-183443	WVGS#19588	West Virginia	Logan	Kanawha Formation
ERP00128	E-183444	WVGS#19589	West Virginia	Logan	Kanawha Formation
ERP00128	E-183445	WVGS#19590	West Virginia	Logan	Kanawha Formation
ERP00128	E-183446	WVGS#19591	West Virginia	Logan	Kanawha Formation
ERP00128	E-183447	WVGS#19593A	West Virginia	Logan	Kanawha Formation
ERP00128	E-183448	WVGS#19594	West Virginia	Logan	Kanawha Formation
ERP00128	E-183449	WVGS#19595	West Virginia	Logan	Kanawha Formation
ERP00128	E-183450	WVGS#19596A	West Virginia	Logan	Kanawha Formation

Table 5. -- Proximate, ultimate and forms-of-sulfur analyses, calorific value, ash-fusion temperature
[blank space indicates no data or not analyzed, ar = as-received basis]

Job number	Laboratory number	Field number	State	County	Formation
ERP00128	E-183451	WVGS#19597	West Virginia	Logan	Allegheny Formation
ERP00128	E-183452	WVGS#19598	West Virginia	Logan	Kanawha Formation
ERP00128	E-183453	WVGS#19599	West Virginia	Logan	Allegheny Formation
ERP00128	E-183454	WVGS#19600	West Virginia	Logan	Kanawha Formation
ERP00128	E-183455	WVGS#19601	West Virginia	Logan	Kanawha Formation
ERP00128	E-183456	WVGS#19602	West Virginia	Logan	Kanawha Formation
ERP00128	E-183457	WVGS#19603	West Virginia	Logan	Kanawha Formation
ERP00128	E-183458	WVGS#19604	West Virginia	Logan	Kanawha Formation
ERP00128	E-183459	WVGS#19633	West Virginia	Braxton	Kanawha Formation
ERP00128	E-183460	WVGS#19634	West Virginia	Braxton	Kanawha Formation
ERP00128	E-183461	WVGS#20000	West Virginia	Braxton	Kanawha Formation
ERP00128	E-183462	WVGS#20001	West Virginia	Upshur	Allegheny Formation
ERP00128	E-183463	WVGS#19593B	West Virginia	Logan	Kanawha Formation
ERP00128	E-183464	WVGS#19596B	West Virginia	Logan	Kanawha Formation
ERP00369	E-218036	WVGS#20003	West Virginia	Logan	Kanawha Formation
ERP00369	E-218037	WVGS#20009	West Virginia	Logan	Kanawha Formation
ERP00369	E-218038	WVGS#20008	West Virginia	Logan	Kanawha Formation
ERP00369	E-218039	WVGS#20048	West Virginia	Logan	Kanawha Formation
ERP00369	E-218040	WVGS#20047	West Virginia	Logan	Kanawha Formation
ERP00369	E-218041	WVGS#21554	West Virginia	Raleigh	New River Formation
ERP00369	E-218042	WVGS#19481	West Virginia	Lincoln	Kanawha Formation
ERP00369	E-218043	WVGS#21517	West Virginia	Upshur	New River Formation
ERP00369	E-218044	WVGS#21509	West Virginia	Upshur	Kanawha Formation
ERP00369	E-218045	WVGS#21536	West Virginia	Upshur	Allegheny Formation
ERP00369	E-218046	WVGS#19490	West Virginia	Boone	Kanawha Formation
ERP00369	E-218047	WVGS#21626	West Virginia	Boone	Kanawha Formation
ERP00369	E-218048	WVGS#21547	West Virginia	Raleigh	New River Formation

Table 5. -- Proximate, ultimate and forms-of-sulfur analyses, calorific value, ash-fusion temperature
[blank space indicates no data or not analyzed, ar = as-received basis]

Job number	Laboratory number	Field number	State	County	Formation
ERP00369	E-218049	WVGS#21692	West Virginia	Logan	Kanawha Formation
ERP00369	E-218050	WVGS#21724	West Virginia	Lewis	Kanawha Formation
ERP00369	E-218051	WVGS#21983	West Virginia	Lewis	Allegheny Formation
ERP00369	E-218052	WVGS#21966	West Virginia	Lewis	Allegheny Formation
ERP00369	E-218053	WVGS#21965	West Virginia	Lewis	Allegheny Formation
ERP00369	E-218054	WVGS#21700	West Virginia	Monongalia	Monongahela Group
ERP00369	E-218055	WVGS#9687	West Virginia	Nicholas	Allegheny Formation
ERP00369	E-218056	WVGS#25242	West Virginia	Monongalia	Monongahela Group
ERP00369	E-218057	WVGS#25239	West Virginia	Monongalia	Monongahela Group
ERP00369	E-218058	WVGS#25237	West Virginia	Monongalia	Monongahela Group
ERP00369	E-218059	WVGS#22193	West Virginia	Harrison	Monongahela Group
ERP00369	E-218060	WVGS#22169	West Virginia	Braxton	Allegheny Formation
ERP00369	E-218061	WVGS#22167	West Virginia	Braxton	Allegheny Formation
ERP00369	E-218062	WVGS#22066	West Virginia	Boone	Kanawha Formation
ERP00369	E-218063	WVGS#22295	West Virginia	Boone	Kanawha Formation
ERP00369	E-218064	WVGS#22280	West Virginia	Boone	Kanawha Formation
ERP00369	E-218065	WVGS#22188	West Virginia	Boone	Kanawha Formation
ERP00369	E-218066	WVGS#21673	West Virginia	Raleigh	New River Formation
ERP00369	E-218067	WVGS#22126	West Virginia	Mingo	Kanawha Formation
ERP00369	E-218068	WVGS#22100	West Virginia	Kanawha	Kanawha Formation
ERP00454	E-245990	WVGS#28476D	West Virginia	Marion	Monogahela Group
ERP00454	E-245991	WVGS#22047	West Virginia	Braxton	Kanawha Formation
ERP00454	E-245992	WVGS#22049	West Virginia	Braxton	Allegheny Formation
ERP00454	E-245993	WVGS#22140	West Virginia	Braxton	Allegheny Formation
ERP00454	E-245994	WVGS#22186	West Virginia	Braxton	Allegheny Formation
ERP00454	E-245995	WVGS#22205	West Virginia	Braxton	New River Formation
ERP00454	E-245996	WVGS#22215	West Virginia	Braxton	New River Formation

Table 5. -- Proximate, ultimate and forms-of-sulfur analyses, calorific value, ash-fusion temperature
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Job number	Laboratory number	Field number	State	County	Formation
ERP00454	E-245997	WVGS#22225	West Virginia	Braxton	New River Formation
ERP00454	E-245998	WVGS#22253	West Virginia	Braxton	Allegheny Formation
ERP00454	E-245999	WVGS#22254	West Virginia	Braxton	Allegheny Formation
ERP00454	E-246000	WVGS#22256	West Virginia	Braxton	Allegheny Formation
ERP00454	E-246001	WVGS#22264	West Virginia	Braxton	Conemaugh Formation
ERP00454	E-246002	WVGS#25150	West Virginia	Monongalia	Kanawha Formation
ERP00454	E-246003	WVGS#25151	West Virginia	Monongalia	Kanawha Formation
ERP00454	E-246004	WVGS#25190	West Virginia	Monongalia	Kanawha Formation
ERP00454	E-246005	WVGS#25192	West Virginia	Monongalia	Kanawha Formation
ERP00454	E-246006	WVGS#28252	West Virginia	Marshall	Monogahela Group
ERP00454	E-246007	WVGS#28261	West Virginia	Marshall	Monogahela Group
ERP00454	E-246008	WVGS#28293	West Virginia	Marshall	Monogahela Group
ERP00454	E-246009	WVGS#28347	West Virginia	Marshall	Monogahela Group
ERP00454	E-246010	WVGS#28451	West Virginia	Monongalia	Monogahela Group
ERP00454	E-246011	WVGS#28452	West Virginia	Harrison	Monogahela Group
ERP00454	E-246012	WVGS#28476	West Virginia	Marion	Monogahela Group
ERP00454	E-246013	WVGS#16733	West Virginia	Grant	Allegheny Formation
ERP00454	E-246014	WVGS#16748	West Virginia	Grant	Allegheny Formation
ERP00454	E-246015	WVGS#16760	West Virginia	Grant	Allegheny Formation
ERP00454	E-246016	WVGS#17242	West Virginia	Mingo	Kanawha Formation
ERP00454	E-246017	WVGS#17243	West Virginia	Mingo	Kanawha Formation
ERP00454	E-246018	WVGS#17245	West Virginia	Mingo	Kanawha Formation
ERP00454	E-246019	WVGS#17246	West Virginia	Mingo	Kanawha Formation
ERP00454	E-246020	WVGS#17247	West Virginia	Mingo	Kanawha Formation
ERP00454	E-246021	WVGS#17248	West Virginia	Mingo	Kanawha Formation
ERP00454	E-246022	WVGS#17259	West Virginia	Logan	Kanawha Formation
ERP00454	E-246023	WVGS#17261	West Virginia	Logan	Kanawha Formation

Table 5. -- Proximate, ultimate and forms-of-sulfur analyses, calorific value, ash-fusion temperature
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Job number	Laboratory number	Field number	State	County	Formation
ERP00454	E-246024	WVGS#17262	West Virginia	Logan	Kanawha Formation
ERP00454	E-246025	WVGS#17264	West Virginia	Logan	Kanawha Formation
ERP00454	E-246026	WVGS#18052	West Virginia	Wayne	Allegheny Formation
ERP00454	E-246027	WVGS#18055	West Virginia	Wayne	Kanawha Formation
ERP00454	E-246028	WVGS#18057	West Virginia	Wayne	Kanawha Formation
ERP00454	E-246029	WVGS#18059	West Virginia	Wayne	Kanawha Formation
ERP00454	E-246030	WVGS#18406	West Virginia	Wayne	Allegheny Formation
ERP00454	E-246031	WVGS#18408	West Virginia	Wayne	Allegheny Formation
ERP00454	E-246032	WVGS#21939	West Virginia	Lewis	Allegheny Formation
ERP00454	E-246033	WVGS#22014	West Virginia	Braxton	Kanawha Formation
ERP00454	E-246034	WVGS#22038	West Virginia	Braxton	Kanawha Formation
ERP00454	E-246035	WVGS#17261D	West Virginia	Logan	Kanawha Formation

es and free-swelling Index determinations for 729 National Coal Quality Inventory samples.

Coal	Total moisture (%)	Residual moisture (%)	Air dry loss (%)	Equilibrium moisture (%)	Ash (%) (ar)	Volatile matter (%) (ar)
Wyodak coal zone						
Wyodak coal zone	29.94	17.55	15.03		5.71	31.64
Wyodak coal zone						
Wyodak coal zone						
Wyodak coal zone						
Wyodak coal zone	28.55	13.33	17.56		6.17	31.48
Wyodak coal zone						
Wyodak coal zone						
Wyodak coal zone						
Wyodak coal zone						
Wyodak coal zone						

es and free-swelling Index determinations for 729 National Coal Quality Inventory samples.

Coal	Total moisture (%)	Residual moisture (%)	Air dry loss (%)	Equilibrium moisture (%)	Ash (%) (ar)	Volatile matter (%) (ar)
Wyodak coal zone	30.28	14.70	18.27		5.66	30.96
Anderson coal						
Anderson coal	23.48	13.72	11.31		15.43	30.01
Anderson coal						
Anderson coal						
Canyon coal						
Canyon coal	17.81	11.29	7.35		6.77	34.70
Canyon coal						
Canyon coal						
Wyodak coal zone						
Wyodak coal zone	26.90	13.47	15.52		7.81	33.61
Wyodak coal zone						
Wyodak coal zone						
Wyodak coal zone						
Wyodak coal zone	27.67	14.64	15.26		5.36	33.17
Wyodak coal zone						
Wyodak coal zone						
Wyodak coal zone						
Anderson coal						
Wyodak coal zone						
Wyodak coal zone						
Wyodak coal zone						
Wyodak coal zone						
Wyodak coal zone						
Wyodak coal zone						
Wyodak coal zone						
Wyodak coal zone						

es and free-swelling Index determinations for 729 National Coal Quality Inventory samples.

Coal	Total moisture (%)	Residual moisture (%)	Air dry loss (%)	Equilibrium moisture (%	Ash (%) (ar)	Volatile matter (%) (ar)
Wyodak coal zone						
Wyodak coal zone						
Wyodak coal zone						
Wyodak coal zone						
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es and free-swelling Index determinations for 729 National Coal Quality Inventory samples.

Coal	Total moisture (%)	Residual moisture (%)	Air dry loss (%)	Equilibrium moisture (%)	Ash (%) (ar)	Volatile matter (%) (ar)
Wyodak coal zone						
Wyodak coal zone						
Wyodak coal zone						
Wyodak coal zone						
Wyodak coal zone						
Wyodak coal zone						
Wyodak coal zone						
Wyodak coal zone						
Wyodak coal zone						
Wyodak coal zone						
Wyodak coal zone						
Anderson coal	23.99	10.97	14.62		5.87	33.83
Anderson coal	24.30	9.15	16.68		5.12	34.96
Anderson coal	24.01	11.25	14.38		5.63	34.00
Anderson coal	24.21	9.52	16.24		5.54	36.12
Anderson coal	23.76	9.87	15.41		5.70	33.19
Anderson coal	23.60	12.20	12.98		6.05	34.08
Canyon coal	24.05	8.27	17.20		5.90	31.84
Canyon coal	24.18	11.01	14.80		5.35	32.60
Canyon coal	24.42	9.73	16.27		5.27	32.42
Canyon coal	24.41	10.92	15.14		5.13	31.95
Canyon coal	24.00	8.94	16.54		5.36	32.22
Canyon coal	23.69	10.94	14.32		5.80	32.70
Wyodak coal zone	26.41	10.48	17.79		7.76	32.67
Wyodak coal zone	26.35	11.43	16.85		7.28	33.57
Wyodak coal zone	27.72	8.88	20.68		4.85	32.84
Wyodak coal zone	28.33	11.58	18.94		4.65	32.46

es and free-swelling Index determinations for 729 National Coal Quality Inventory samples.

Coal	Total moisture (%)	Residual moisture (%)	Air dry loss (%)	Equilibrium moisture (%)	Ash (%) (ar)	Volatile matter (%) (ar)
Wyodak coal zone						
Wyodak coal zone						
	15.57	6.64	9.57		2.60	37.29
	16.67	7.10	10.30		4.02	36.18
	16.07	6.13	10.59		2.95	36.56
	18.37	7.95	11.32		2.90	35.66
	24.40	8.62	17.27		3.77	34.90
	18.98	6.83	13.04		5.91	37.23
	11.90	7.26	5.00		8.76	32.84
	16.41	8.56	8.58		8.00	31.41
	20.57	10.21	11.54		4.82	31.48
	17.38	7.24	10.93		9.50	30.98
	13.61	6.68	7.43		8.75	31.73
	10.62	6.11	4.80		9.21	34.69
	7.78	4.76	3.17		12.05	37.88
	7.27	4.01	3.40		16.10	37.53
	11.17	4.78	6.71		8.13	38.81
	7.25	4.44	2.94		12.02	36.57
	2.42	1.25	1.18		13.27	30.55
	1.79	1.14	0.66		38.55	23.73
	2.52	1.15	1.39		13.17	28.89
	4.48	1.48	3.04		7.75	34.55
	2.87	1.38	1.51		3.07	37.67
	3.31	1.73	1.61		4.51	36.41

es and free-swelling Index determinations for 729 National Coal Quality Inventory samples.

Coal	Total moisture (%)	Residual moisture (%)	Air dry loss (%)	Equilibrium moisture (%)	Ash (%) (ar)	Volatile matter (%) (ar)
	7.26	3.85	3.55		9.00	35.52
	5.65	3.26	2.47		7.25	36.82
Wadge coal	11.99	7.42	4.94		6.26	34.32
	14.20	6.13	8.60		12.83	31.14
	11.66	5.77	6.25		12.97	31.66
nber	5.13	1.66	3.53		8.55	33.89
	15.26	8.75	7.13		4.86	35.29
	18.16	9.75	9.32		7.96	30.61
	15.21	7.94	7.90		14.86	28.69
	14.04	7.34	7.23		11.06	31.20
	9.28	4.57	4.94		10.65	31.40
nber	6.01	3.15	2.95		3.41	35.66
nber	8.62	4.35	4.46		3.72	34.25
	15.85	10.91	4.94		5.61	33.67
	14.72	8.49	6.23		6.60	33.73
	16.64	11.58	5.06		6.23	37.47
	16.84	8.70	8.14		7.77	32.38
	17.68	9.79	7.89		5.61	33.93
	9.75	3.62	6.13		7.60	36.29
	4.14	1.50	2.64		7.19	38.14
	5.65	1.29	4.36		19.91	28.13
nber	7.03	2.86	4.17		6.59	37.93
	3.44	2.52	0.92		6.89	39.74
nber	3.39	1.68	1.71		9.15	39.07
	9.62	3.81	5.81		9.97	34.58
Wadge coal	11.86	7.29	4.57		15.93	32.36
	14.99	7.25	7.74		7.06	35.29

es and free-swelling Index determinations for 729 National Coal Quality Inventory samples.

Coal	Total moisture (%)	Residual moisture (%)	Air dry loss (%)	Equilibrium moisture (%)	Ash (%) (ar)	Volatile matter (%) (ar)
	8.58	4.09	4.49		9.33	37.31
	6.73	1.55	5.26		8.45	36.20
	7.85	2.81	5.04		7.52	38.09
	9.49	3.22	6.48		26.42	29.15
	12.44	2.46	10.23		25.02	30.31
	14.73	2.99	12.10		9.71	33.73
	16.86	3.79	13.58		3.34	32.35
	16.33	3.05	13.70		4.79	33.80
	14.92	3.56	11.78		3.93	35.45
	16.61	3.85	13.27		4.52	32.35
	17.13	3.18	14.41		4.79	32.29
	17.06	4.11	13.50		3.84	35.83
	14.86	3.36	11.90		2.63	35.67
	17.15	5.55	12.28		4.99	32.98
	18.50	4.89	14.31		4.28	32.28
	2.69	0.36	2.34		15.71	26.97
	2.19	0.43	1.77		12.49	31.02
Iron Post coal	3.22				6.14	41.46
Iron Post coal	3.16				5.97	42.26
Croweburg coal	7.66				6.87	34.98
Mineral coal						
Stiger coal						
Lower Hartshorne coal						

es and free-swelling Index determinations for 729 National Coal Quality Inventory samples.

Coal	Total moisture (%)	Residual moisture (%)	Air dry loss (%)	Equilibrium moisture (%)	Ash (%) (ar)	Volatile matter (%) (ar)
Iron Post coal	3.49				4.89	43.24
Croweburg coal	6.72				5.26	32.35
Danville Coal Member	3.22				6.14	41.46
Herrin Coal Member						
Herrin Coal Member						
Springfield Coal Member						
Murphysboro Coal Member						
Murphysboro Coal Member						
Murphysboro Coal Member						
Herrin Coal Member						
Herrin Coal Member						
Herrin Coal Member						
Herrin Coal Member						
Danville Coal Member	11.29				9.4	
Hymera Coal Member	8.67				20.7	
Herrin Coal Member	10.68				9.35	
Springfield Coal Member	8.45				14.5	
Houchin Creek Coal Member	8.61				12.97	
Survant Coal Member	10.56				10.66	
Colchester Coal Member	4.96				21.63	
Seeleyville Coal Member	7.89				10.39	
Davis Coal Member	5.59				14.48	
Holland Coal Member	8.58				19.87	
Buffaloville Coal Member	6.73				7.72	
Lower Block Coal Member	8.45				13.73	
uncorrelated coal	10.72				9.72	
uncorrelated coal	13.67				8.68	

es and free-swelling Index determinations for 729 National Coal Quality Inventory samples.

Coal	Total moisture (%)	Residual moisture (%)	Air dry loss (%)	Equilibrium moisture (%)	Ash (%) (ar)	Volatile matter (%) (ar)
uncorrelated coal	9.19				16.02	
uncorrelated coal	7.77				15.39	
uncorrelated coal	7.32				13.98	
uncorrelated coal	9.73				9.64	
uncorrelated coal	10.87				6.52	
uncorrelated coal	9.35				11.86	
uncorrelated coal	4.17				16.86	
Upper Block Coal Member						
Upper Block Coal Member						
Upper Block Coal Member						
Lower Block Coal Member						
Lower Block Coal Member						
Lower Block Coal Member						
Lower Block Coal Member						
Lower Block Coal Member						
Lower Block Coal Member						
Lower Block Coal Member						
Lower Block Coal Member						
Upper Block Coal Member						
Upper Block Coal Member						
Upper Block Coal Member						
Minshall Coal Member	11.08			13.36	7.89	
Minshall Coal Member						
Minshall Coal Member	11.35			11.81	6.19	
Minshall Coal Member						
Minshall Coal Member	12.48			12.57	9.37	
Minshall Coal Member						

es and free-swelling Index determinations for 729 National Coal Quality Inventory samples.

Coal	Total moisture (%)	Residual moisture (%)	Air dry loss (%)	Equilibrium moisture (%)	Ash (%) (ar)	Volatile matter (%) (ar)
Upper Block Coal Member	8.29			9.47	5.26	
Upper Block Coal Member						
Upper Block Coal Member	9.83			10.45	3.14	
Upper Block Coal Member						
Upper Block Coal Member	10.53			12.14	4.54	
Upper Block Coal Member						
Danville Coal Member	13.79				3.87	
Danville Coal Member						
Danville Coal Member	15.82				10.02	
Danville Coal Member						
Danville Coal Member	17.24				11.49	
Danville Coal Member						
Danville Coal Member	16.85				7.03	
Danville Coal Member						
Lower Block Coal Member						
Minshall Coal Member						
Upper Block Coal Member						
Danville Coal Member	13.56				4.47	
Danville Coal Member						
Danville Coal Member	15.08				10.90	
Danville Coal Member						
Danville Coal Member	15.01				7.72	
Danville Coal Member						
Hymera Coal Member	13.53				9.12	
Hymera Coal Member						
Hymera Coal Member	14.15				6.49	
Hymera Coal Member						

es and free-swelling Index determinations for 729 National Coal Quality Inventory samples.

Coal	Total moisture (%)	Residual moisture (%)	Air dry loss (%)	Equilibrium moisture (%)	Ash (%) (ar)	Volatile matter (%) (ar)
Hymera Coal Member	14.81				15.73	
Hymera Coal Member						
Danville Coal Member	7.74			10.71	18.50	
Danville Coal Member						
Danville Coal Member	11.56			12.00	11.72	
Danville Coal Member						
Danville Coal Member	11.78			12.20	5.52	
Danville Coal Member						
Danville Coal Member	13.32			11.99	7.18	
Danville Coal Member						
Danville Coal Member	12.45			11.11	27.63	
Danville Coal Member						
Mariah Hill Coal Member	11.90			11.65	2.62	
Mariah Hill Coal Member						
Mariah Hill Coal Member	12.84			12.28	2.10	
Mariah Hill Coal Member						
Mariah Hill Coal Member	13.73			12.87	5.82	
Mariah Hill Coal Member						
unnamed coal	12.83			10.69	8.57	
unnamed coal						
unnamed coal	14.09			11.38	3.81	
unnamed coal						
unnamed coal	8.40			9.97	5.97	
unnamed coal						
unnamed coal	12.19			10.59	9.39	
unnamed coal						
unnamed coal						

es and free-swelling Index determinations for 729 National Coal Quality Inventory samples.

Coal	Total moisture (%)	Residual moisture (%)	Air dry loss (%)	Equilibrium moisture (%)	Ash (%) (ar)	Volatile matter (%) (ar)
Danville Coal Member						
Hymera Coal Member						
Lower Block Coal Member	15.69			13.53	4.10	
Lower Block Coal Member						
Lower Block Coal Member	12.19			11.43	3.40	
Lower Block Coal Member						
Lower Block Coal Member	9.62			11.56	5.90	
Lower Block Coal Member						
unnamed coal	11.97			12.75	3.97	
unnamed coal						
unnamed coal	12.86			10.34	8.38	
unnamed coal						
unnamed coal	14.00			12.21	4.45	
unnamed coal						
unnamed coal	13.85			12.77	6.24	
unnamed coal						
prepared coal						
prepared coal						
prepared coal						
prepared coal						
prepared coal						
prepared coal						
prepared coal						
prepared coal						
Springfield Coal Member	9.97			8.61	10.96	
Springfield Coal Member						
Springfield Coal Member	9.89			8.68	11.40	

es and free-swelling Index determinations for 729 National Coal Quality Inventory samples.

Coal	Total moisture (%)	Residual moisture (%)	Air dry loss (%)	Equilibrium moisture (%)	Ash (%) (ar)	Volatile matter (%) (ar)
Springfield Coal Member						
Springfield Coal Member	9.32			8.05	10.83	
Springfield Coal Member						
Springfield Coal Member	9.19			9.04	12.69	
Springfield Coal Member						
Springfield Coal Member	9.42			8.66	12.45	
Springfield Coal Member						
Lower Block Coal Member						
Springfield Coal Member						
fly ash						
fly ash						
fly ash						
fly ash						
fly ash						
fly ash						
fly ash						
fly ash						
hopper ash						
fly ash						
fly ash						
fly ash						
gypsum						
fly ash						
Lower Block Coal Member	13.43			14.83	1.81	
Lower Block Coal Member						
Lower Block Coal Member	14.33			14.82	3.03	
Lower Block Coal Member						

es and free-swelling Index determinations for 729 National Coal Quality Inventory samples.

Coal	Total moisture (%)	Residual moisture (%)	Air dry loss (%)	Equilibrium moisture (%)	Ash (%) (ar)	Volatile matter (%) (ar)
Lower Block Coal Member	12.97			12.67	5.82	
Lower Block Coal Member						
Lower Block Coal Member	11.14			11.58	11.19	
Lower Block Coal Member						
unnamed coal	13.65			11.27	2.57	
unnamed coal						
unnamed coal	13.57			11.00	3.99	
unnamed coal						
unnamed coal	9.61			9.61	6.40	
unnamed coal						
Lower Block Coal Member						
Hymera Coal Member	13.34			12.68	13.23	
Hymera Coal Member						
Hymera Coal Member	9.94			12.32	9.28	
Hymera Coal Member						
Hymera Coal Member	12.11			13.21	9.97	
Hymera Coal Member						
Hymera Coal Member	15.15			12.04	12.50	
Hymera Coal Member						
Springfield Coal Member	8.69			9.18	11.60	
Springfield Coal Member						
Springfield Coal Member	9.47			8.90	5.23	
Springfield Coal Member						
Springfield Coal Member	8.79			8.04	11.31	
Springfield Coal Member						
Springfield Coal Member	7.99			8.14	10.37	
Springfield Coal Member						

es and free-swelling Index determinations for 729 National Coal Quality Inventory samples.

Coal	Total moisture (%)	Residual moisture (%)	Air dry loss (%)	Equilibrium moisture (%)	Ash (%) (ar)	Volatile matter (%) (ar)
Hymera Coal Member						
Springfield Coal Member						
Springfield Coal Member	6.18			2.55	6.69	
Springfield Coal Member						
Springfield Coal Member	7.38			2.71	3.31	
Springfield Coal Member						
Springfield Coal Member	7.52			2.95	4.67	
Springfield Coal Member						
Springfield Coal Member	7.42			2.97	5.89	
Springfield Coal Member						
Danville Coal Member	14.99			3.67	15.77	
Danville Coal Member	15.14			3.13	13.64	
Danville Coal Member	16.15			14.00	10.91	
Danville Coal Member	15.69				7.61	
Upper Block Coal Member	8.40				31.83	
Upper Block Coal Member	10.78				11.78	
Upper Block Coal Member	13.95				3.70	
Upper Block Coal Member	14.55				5.22	
Lower Block Coal Member	14.30				2.08	
Lower Block Coal Member	14.56				4.40	
Lower Block Coal Member	16.37				5.49	
Lower Block Coal Member	14.00				8.42	
Buffaloville Coal Member	11.81				12.69	
Buffaloville Coal Member	12.79				8.27	
Buffaloville Coal Member	9.53				25.23	
Buffaloville Coal Member	10.86				10.46	
Springfield Coal Member	10.36			2.56	6.82	

es and free-swelling Index determinations for 729 National Coal Quality Inventory samples.

Coal	Total moisture (%)	Residual moisture (%)	Air dry loss (%)	Equilibrium moisture (%)	Ash (%) (ar)	Volatile matter (%) (ar)
Springfield Coal Member						
Springfield Coal Member	7.16			2.50	7.72	
Springfield Coal Member						
Springfield Coal Member	11.80			2.52	7.49	
Springfield Coal Member						
Springfield Coal Member	11.38			3.14	7.53	
Springfield Coal Member						
Seeleyville Coal Member	10.43				3.48	
Seeleyville Coal Member						
Seeleyville Coal Member	12.30				5.94	
Seeleyville Coal Member						
Seeleyville Coal Member	11.97				17.76	
Seeleyville Coal Member						
Seeleyville Coal Member	7.17				52.48	
Seeleyville Coal Member						
Seeleyville Coal Member	7.15				18.32	
Seeleyville Coal Member						
Seeleyville Coal Member	8.25				9.20	
Seeleyville Coal Member						
Seeleyville Coal Member	9.16				8.71	
Seeleyville Coal Member						
Seeleyville Coal Member	7.97				9.02	
Seeleyville Coal Member						
Upper Millersburg Coal Member	9.43			3.77	18.17	
Upper Millersburg Coal Member						
Upper Millersburg Coal Member	10.66			3.07	5.47	
Upper Millersburg Coal Member						

es and free-swelling Index determinations for 729 National Coal Quality Inventory samples.

Coal	Total moisture (%)	Residual moisture (%)	Air dry loss (%)	Equilibrium moisture (%)	Ash (%) (ar)	Volatile matter (%) (ar)
Upper Millersburg Coal Member	10.73			3.30	11.53	
Upper Millersburg Coal Member						
Upper Millersburg Coal Member	12.53			3.61	10.56	
Upper Millersburg Coal Member						
Upper Millersburg Coal Member	12.60			2.28	10.41	
Upper Millersburg Coal Member						
Upper Millersburg Coal Member	14.36			3.25	6.46	
Upper Millersburg Coal Member						
Upper Millersburg Coal Member	12.10			3.33	8.77	
Upper Millersburg Coal Member						
Pirtle Coal Member	10.84			3.15	9.63	
Pirtle coal						
Big Run coal	11.31				7.33	35.01
Briar Hill coal	1.40				13.38	40.17
Baker coal	1.59				22.30	20.90
Springfield coal	1.63				10.37	37.06
Springfield coal	1.66				15.27	37.97
Springfield coal	1.21				22.42	33.29
Springfield coal	1.48				16.61	15.35
uncorrelated coal	1.76				41.24	39.49
Baker coal	1.80				25.09	35.31
Baker coal	2.24				7.62	37.85
Baker coal	1.98				38.20	36.25
Springfield coal	1.73				10.07	38.34
Springfield coal	2.63				12.13	37.82
Springfield coal	2.53				46.51	37.72
Springfield coal	2.38				74.62	16.66

es and free-swelling Index determinations for 729 National Coal Quality Inventory samples.

Coal	Total moisture (%)	Residual moisture (%)	Air dry loss (%)	Equilibrium moisture (%)	Ash (%) (ar)	Volatile matter (%) (ar)
Davis coal	2.94				76.37	15.82
Davis coal	2.99				12.80	39.01
Survant coal	3.35				75.86	16.59
Survant coal	3.28				65.93	16.96
Springfield coal	4.63				10.55	36.04
Springfield coal	5.11				14.87	34.72
Springfield coal	3.53				13.79	35.69
Springfield coal	2.85				68.82	18.70
Colchester coal	3.50				15.37	37.58
Colchester coal	2.95				13.02	11.65
Herrin coal	3.61				10.02	38.79
Herrin coal	5.33				5.55	37.76
Herrin coal	5.12				13.30	30.86
Herrin coal	5.50				12.87	36.58
prepared coal						
prepared coal						
prepared coal						
prepared coal						
prepared coal						
prepared coal						
prepared coal						
prepared coal						
Dean (Fireclay) coal						
Dean (Fireclay) coal						

es and free-swelling Index determinations for 729 National Coal Quality Inventory samples.

Coal	Total moisture (%)	Residual moisture (%)	Air dry loss (%)	Equilibrium moisture (%)	Ash (%) (ar)	Volatile matter (%) (ar)
Dean (Fireclay) coal						
Dean (Fireclay) coal						
Dean (Fireclay) coal						
Dean (Fireclay) coal						
Dean (Fireclay) coal						
prepared coal						
Dean (Fireclay) coal						
fly ash						
fly ash						
fly ash						
fly ash						
fly ash						
fly ash						
fly ash						
fly ash						
fly ash						
fly ash						
fly ash						
fly ash						
fly ash						
fly ash						
bottom ash						
fly ash						
fly ash						
Lower Kittanning coal						
Lower Kittanning coal						

es and free-swelling Index determinations for 729 National Coal Quality Inventory samples.

Coal	Total moisture (%)	Residual moisture (%)	Air dry loss (%)	Equilibrium moisture (%)	Ash (%) (ar)	Volatile matter (%) (ar)
Lower Kittanning coal						
Lower Kittanning coal	2.26	0.35	1.91	1.51	13.23	18.61
Lower Kittanning coal	4.35	1.01	3.37		21.46	15.74
Lower Kittanning coal	2.28	0.99	1.31		54.31	12.89
Lower Kittanning coal	0.60	0.60			75.59	11.21
Lower Kittanning coal	2.88	0.47	2.42		23.99	15.77
Sewickley coal	6.01	0.36	5.67	2.04	15.43	20.99
Redstone coal	4.03	0.96	3.10	2.71	6.20	21.32
Morantown coal	1.77	0.51	1.26	1.88	26.58	18.86
Lower Freeport coal	6.08	1.56	4.60	3.77	11.91	18.29
Sewickley coal	3.93	0.81	3.15		23.81	20.91
Redstone coal	4.33	0.50	3.86		13.96	20.71
Morantown coal	4.04	0.39	3.67		36.89	16.46
Lower Freeport coal	3.38	0.43	2.96		7.83	17.78
Upper Kittanning coal	5.65	0.64	5.04		15.90	18.44
Lower Kittanning coal	3.89	0.66	3.25		17.93	17.33
	0.64	0.64			69.08	12.59
	5.35	0.69	4.69		12.93	19.02
Pittsburgh coal	2.53	0.65	1.89		28.76	18.24
Blue Lick coal	2.35	0.52	1.84		18.70	19.18
	5.02	1.01	4.05		15.05	19.58
Lower Kittanning coal	0.79	0.79			13.91	32.80
Lower Kittanning coal	0.69	0.69			19.49	31.59
Lower Kittanning coal	0.98	0.98			56.29	19.31
Lower Kittanning coal	0.74	0.74			30.75	27.64
Lower Kittanning coal	1.28	1.28			8.94	31.75
Pittsburgh coal	1.00	1.00			9.01	36.04

es and free-swelling Index determinations for 729 National Coal Quality Inventory samples.

Coal	Total moisture (%)	Residual moisture (%)	Air dry loss (%)	Equilibrium moisture (%)	Ash (%) (ar)	Volatile matter (%) (ar)
Pittsburgh coal	0.99	0.99			30.35	28.46
Pittsburgh coal	0.91	0.91			31.21	28.36
Pittsburgh coal	0.95	0.95			8.93	37.31
Pittsburgh coal	0.57	0.57			78.51	12.33
Jellico coal	2.53	1.92	0.62		9.02	32.95
Mingo coal	3.04	2.34	0.72		3.93	34.37
Nemo coal	4.61	2.85	1.81		7.64	36.32
Pewee coal	3.00	2.19	0.83		7.28	34.20
Richland coal	1.92	1.23	0.70		5.28	30.89
Rex coal	1.88	1.41	0.48		11.24	28.66
Walnut Mountain	2.52	1.89	0.64		9.14	32.88
	2.72	1.95	0.79		1.56	37.12
Mingo coal	3.18	2.48	0.72		6.51	34.57
Mingo coal	2.53	2.08	0.46		3.51	34.65
Sewickley coal	1.20				15.91	34.89
No. 6 Block coal	1.46				10.37	33.32
No. 6 Block coal	2.10				11.98	32.7
No. 5 Block coal	1.75				6.1	33.16
Little No. 5 Block coal	1.81				12	33.35
Stockton coal	1.81				25.32	28.84
Stockton coal	1.95				20.29	29.9
Stockton coal	1.89				23.81	28.79
Stockton coal						
Coalburg coal	1.43				29.54	27.86
Coalburg coal	1.24				21.9	29.12
Coalburg coal	2.27				11.9	32.98
Coalburg coal						

es and free-swelling Index determinations for 729 National Coal Quality Inventory samples.

Coal	Total moisture (%)	Residual moisture (%)	Air dry loss (%)	Equilibrium moisture (%)	Ash (%) (ar)	Volatile matter (%) (ar)
Coalburg coal						
Winifrede coal	1.51				6.72	33.21
Coalburg coal	1.79				31.63	27.58
Stockton coal	2.18				5.89	32.73
Stockton coal	1.71				10.07	32.22
Stockton coal	1.84				8.28	33.07
Williamson coal	1.39				11.39	32.99
No. 5 Block coal	3.18				12.76	34.14
Coalburg coal	3.61				7.5	36.34
Coalburg coal	1.18				27.47	28.23
Coalburg coal	1.16				41.03	23.5
Coalburg coal						
Winifrede coal						
Winifrede coal	1.78				4.59	64
Coalburg coal	1.51				5.82	34.17
Coalburg coal	1.89				20.9	31.08
No. 6 Block coal	1.96				25.69	29.31
No. 6 Block coal	1.95				13.29	34.43
Redstone coal	1.70				8.89	35.16
Bakerstown coal	0.43				25.76	16.21
Upper Freeport coal	1.08				16.54	27.39
No. 5 Block coal	1.48				22.11	30.33
No. 5 Block coal	1.62				22.92	30.37
Stockton coal	2.09				13.21	33.23
Winifrede coal	2.24				7.51	34.15
Cedar Grove coal	1.17				8.85	35.76
Powellton coal	1.48				18.09	29.39

es and free-swelling Index determinations for 729 National Coal Quality Inventory samples.

Coal	Total moisture (%)	Residual moisture (%)	Air dry loss (%)	Equilibrium moisture (%)	Ash (%) (ar)	Volatile matter (%) (ar)
Coalburg coal	1.59				18.04	30.87
Winifrede coal	1.20				13.79	32.44
Waynesburg coal	1.59				22.36	30.54
Waynesburg coal	1.47				17.37	32.46
Sewickley coal	2.60				11.49	32.72
Sewickley coal	1.12				13.43	33.26
Sewickley coal	0.74				12.18	33.94
Redstone coal	1.65				5.32	35.3
Bakerstown coal	0.62				36.11	14.71
Bakerstown coal	0.55				5.64	18.2
Upper Freeport coal	0.45				17.49	16.71
Upper Freeport coal	0.85				17.84	26.65
Upper Freeport coal	0.82				14.45	29.3
Cedar Grove coal						
Stockton coal	1.40				13.86	34
No. 6 Block coal	1.53				3.06	36.32
No. 5 Block coal	1.76				9.1	34.57
Upper No. 5 Block coal	1.50				15.94	31.44
Stockton coal	1.50				24.67	29.98
Stockton coal	1.85				13.84	31.1
Stockton coal	1.80				5.19	36.19
Stockton coal	1.06				4.09	36.04
Coalburg coal	1.83				25.29	28.41
Coalburg coal	1.69				18.64	30.41
Stockton coal	1.86				15.97	30.38
Coalburg coal	1.62				27.41	27.42
Coalburg coal	1.27				18.15	27.59

es and free-swelling Index determinations for 729 National Coal Quality Inventory samples.

Coal	Total moisture (%)	Residual moisture (%)	Air dry loss (%)	Equilibrium moisture (%)	Ash (%) (ar)	Volatile matter (%) (ar)
Coalburg coal	1.79				7.07	34.75
Coalburg coal	1.53				6.79	29.37
Coalburg coal	1.99				9.21	32.18
Coalburg coal	1.43				6.73	32.63
Coalburg coal	2.23				9.86	30.88
Coalburg coal	1.74				3.56	35.8
Winifrede coal	1.13				3.04	34.96
No. 5 Block coal	2.25				6.46	35.22
Coalburg coal						
Stockton coal	1.64				10.79	35.22
Coalburg coal	1.85				16.29	34.15
No. 5 Block coal	2.12				10.5	34.28
No. 6 Block coal	2.34				37.11	25.43
Stockton coal	2.12				15.68	33.35
Stockton coal	2.58				11.64	36
No. 5 Block coal	3.26				11.44	34.13
Coalburg coal	1.62				32.85	28.63
Coalburg coal	2.97				16.93	32.58
Coalburg coal	2.63				21.85	31.19
Coalburg coal	1.98				14.22	31.55
Coalburg coal	1.52				24.06	28.61
Coalburg coal	1.49				10.78	32.81
Coalburg coal	1.91				29.64	27.38
Coalburg coal	2.09				16.28	30.32
Stockton coal	2.11				4.74	35.09
Stockton coal	2.08				23.26	28.43
Stockton coal	1.82				17.82	32.05

es and free-swelling Index determinations for 729 National Coal Quality Inventory samples.

Coal	Total moisture (%)	Residual moisture (%)	Air dry loss (%)	Equilibrium moisture (%)	Ash (%) (ar)	Volatile matter (%) (ar)
Upper No. 5 Block coal	3.50				7.84	31.57
Stockton coal	2.78				13.47	30.81
No. 5 Block coal	1.96				6.73	34.18
Stockton coal	2.10				6.86	34.73
Coalburg coal	1.58				32.49	26.95
Coalburg coal	1.28				42.88	23.8
Coalburg coal	1.55				10.23	32.32
Coalburg coal	1.56				30.92	25.47
Coalburg coal	1.28				26.17	29.25
Coalburg coal	1.18				13.75	32.46
Stockton coal	1.06				21.57	29.29
Middle Kittanning coal	0.75				22.98	31.19
Coalburg coal						
Stockton coal						
Cedar Grove coal	1.13				10.03	34.62
Dean (Fireclay) coal	1.65				11.38	32.68
Cedar Grove coal	1.15				6.25	37.21
Winifrede coal	1.48				5.10	33.75
Winifrede coal	1.47				3.12	33.78
Sewell coal	1.06				12.28	18.89
Coalburg coal	2.15				8.65	33.97
Sewell coal	1.12				27.75	23.65
No. 2 Gas coal	0.97				11.03	29.58
Upper Kittanning coal	1.11				18.71	29.72
Coalburg coal	1.83				13.54	33.02
Eagle coal	2.07				16.90	30.28
Welch coal	0.69				31.47	15.56

es and free-swelling Index determinations for 729 National Coal Quality Inventory samples.

Coal	Total moisture (%)	Residual moisture (%)	Air dry loss (%)	Equilibrium moisture (%)	Ash (%) (ar)	Volatile matter (%) (ar)
Peerless coal	1.56				10.44	34.43
No. 2 Gas coal	1.44				14.34	29.95
Middle Kittanning coal	1.01				24.05	27.94
Lower Kittanning coal	0.96				16.59	32.58
Lower Kittanning coal	0.82				24.28	30.55
Redstone coal	1.74				10.50	31.10
Middle Kittanning coal						
Sewickley coal						
Redstone coal						
Pittsburgh coal						
Pittsburgh coal						
No. 5 Block coal						
No. 5 Block coal						
Stockton coal	1.78				23.04	28.21
Little Chilton coal						
No. 2 Gas coal	1.31				9.59	29.72
Lower Powellton coal	1.05				5.17	31.15
Sewell coal	0.84				19.90	16.78
Powellton coal	1.14				5.34	30.67
Stockton coal	2.00				9.60	34.29
Pittsburgh coal						
Stockton coal	1.16				25.50	28.39
Stockton coal	1.13				11.07	29.80
Little No. 5 Block coal	1.04				6.25	34.58
Lower Kittanning coal	1.27				18.38	30.65
Sewell coal	0.84				15.88	30.73
Sewell coal	0.52				38.37	21.77

es and free-swelling Index determinations for 729 National Coal Quality Inventory samples.

Coal	Total moisture (%)	Residual moisture (%)	Air dry loss (%)	Equilibrium moisture (%)	Ash (%) (ar)	Volatile matter (%) (ar)
Sewell coal	0.68				7.71	30.50
Middle Kittanning coal	0.87				21.91	30.96
Middle Kittanning coal	1.03				31.11	26.33
Upper Kittanning coal	1.37				18.21	31.63
Brush Creek coal	1.38				48.05	24.12
Lower Mercer coal	0.49				30.47	21.50
Upper Mercer coal	0.72				10.86	28.55
Quakertown coal	0.47				27.61	25.94
Quakertown coal	0.58				33.29	26.76
Sewickley coal	1.51				18.63	32.32
Waynesburg coal	2.14				16.62	33.31
Waynesburg coal	1.74				21.51	31.12
Sewickley coal	1.84				13.46	34.53
Pittsburgh coal	2.75				9.15	31.72
Pittsburgh coal	1.56				7.42	34.68
Pittsburgh coal	1.37				8.63	35.27
Lower Freeport coal	0.50				26.30	17.52
Upper Freeport coal	0.76				18.43	18.92
Lower Kittanning coal	0.86				32.71	15.69
Coalburg coal	1.92				3.78	37.32
Coalburg coal	1.96				15.62	32.87
Coalburg coal	2.41				13.06	33.67
Coalburg coal	1.59				7.89	35.64
Coalburg coal	1.95				3.81	35.83
Coalburg coal	1.85				31.39	27.90
Coalburg coal	1.90				13.95	35.76
Coalburg coal	2.05				44.61	25.86

es and free-swelling Index determinations for 729 National Coal Quality Inventory samples.

Coal	Total moisture (%)	Residual moisture (%)	Air dry loss (%)	Equilibrium moisture (%)	Ash (%) (ar)	Volatile matter (%) (ar)
Coalburg coal	1.64				4.53	39.49
Coalburg coal	1.69				10.20	36.07
No. 5 Block coal	3.24				7.90	36.91
Coalburg coal	2.79				7.81	37.31
Coalburg coal	3.17				7.95	36.83
Coalburg coal	3.03				4.65	36.52
Upper Freeport coal	2.63				34.26	29.96
Upper No. 5 Block coal	2.40				29.84	33.36
Clarion coal	0.79				25.45	28.32
Chilton coal	0.88				26.60	32.24
Coalburg coal	1.15				14.06	29.98
Coalburg coal						

Fixed C (%) (ar)	H (%) H_2O (ar)	%H in H_2O	%O in H_2O	H (%) no H_2O (ar)	O (%) no H_2O (ar)	Carbon (%) (ar)	Nitrogen (%) (ar)	Sulfur (%) (ar)
32.71	7.07	3.35	26.59	3.72	11.27	48.33	0.75	0.28
33.80	6.85	3.19	25.36	3.66	11.61	49.04	0.69	0.28

Fixed C (%) (ar)	H (%) H_2O (ar)	%H in H_2O	%O in H_2O	H (%) no H_2O (ar)	O (%) no H_2O (ar)	Carbon (%) (ar)	Nitrogen (%) (ar)	Sulfur (%) (ar)
33.10	7.10	3.39	26.89	3.71	11.56	47.85	0.67	0.27
31.08	5.88	2.63	20.85	3.25	11.17	45.67	0.68	0.32
40.72	5.76	1.99	15.82	3.77	13.28	57.36	0.81	0.20
31.68	6.68	3.01	23.89	3.67	11.02	48.86	0.73	1.01
33.80	6.72	3.10	24.57	3.62	11.08	51.21	0.75	0.31

Fixed C (%) (ar)	H (%) H_2O (ar)	%H in H_2O	%O in H_2O	H (%) no H_2O (ar)	O (%) no H_2O (ar)	Carbon (%) (ar)	Nitrogen (%) (ar)	Sulfur (%) (ar)

Fixed C (%) (ar)	H (%) H_2O (ar)	%H in H_2O	%O in H_2O	H (%) no H_2O (ar)	O (%) no H_2O (ar)	Carbon (%) (ar)	Nitrogen (%) (ar)	Sulfur (%) (ar)
36.31	6.26	2.68	21.31	3.58	13.17	52.29	0.79	0.31
35.62	6.34	2.72	21.58	3.62	13.47	52.44	0.78	0.27
36.36	6.31	2.69	21.32	3.62	13.39	52.30	0.78	0.27
34.13	6.16	2.71	21.50	3.45	13.58	52.18	0.79	0.25
37.35	6.26	2.66	21.10	3.60	13.20	52.65	0.79	0.30
36.27	6.13	2.64	20.96	3.49	13.28	52.48	0.77	0.33
38.21	6.22	2.69	21.36	3.53	13.16	52.41	0.77	0.18
37.87	6.27	2.71	21.47	3.56	13.20	52.72	0.79	0.20
37.89	6.27	2.73	21.69	3.54	13.23	52.56	0.80	0.18
38.51	6.29	2.73	21.68	3.56	13.17	52.75	0.77	0.21
38.42	6.19	2.69	21.31	3.50	13.28	52.86	0.82	0.18
37.81	6.11	2.65	21.04	3.46	13.16	52.92	0.78	0.19
33.16	6.53	2.96	23.45	3.57	11.95	48.87	0.71	0.73
32.80	6.61	2.95	23.40	3.66	11.39	49.80	0.73	0.79
34.59	6.61	3.10	24.62	3.51	12.44	50.46	0.72	0.30
34.56	6.67	3.17	25.16	3.50	12.30	50.22	0.71	0.29

Fixed C (%) (ar)	H (%) H_2O (ar)	%H in H_2O	%O in H_2O	H (%) no H_2O (ar)	O (%) no H_2O (ar)	Carbon (%) (ar)	Nitrogen (%) (ar)	Sulfur (%) (ar)
44.54	6.24	1.74	13.83	4.50	12.93	62.88	0.88	0.64
43.13	6.33	1.87	14.80	4.46	12.38	60.92	0.93	0.62
44.42	6.33	1.80	14.27	4.53	12.78	62.15	0.89	0.63
43.07	6.40	2.06	16.31	4.34	12.64	60.23	0.88	0.64
36.93	6.66	2.73	21.67	3.93	12.32	53.01	0.98	1.59
37.88	6.33	2.12	16.86	4.21	12.50	55.67	1.06	1.67
46.50	5.37	1.33	10.57	4.04	13.61	59.90	1.22	0.57
44.18	5.53	1.84	14.57	3.69	13.58	56.75	1.09	0.48
43.13	6.17	2.30	18.27	3.87	12.32	56.81	1.11	0.50
42.14	5.93	1.94	15.44	3.99	10.55	56.78	1.19	0.61
45.91	5.72	1.52	12.09	4.20	11.42	60.14	1.23	0.65
45.48	4.32	1.19	9.43	3.13	9.61	64.52	1.02	0.70
42.29	4.37	0.87	6.91	3.50	9.71	63.26	0.93	1.90
39.09	4.16	0.81	6.46	3.35	10.17	60.54	0.96	0.79
41.89	4.35	1.25	9.92	3.10	9.87	64.58	0.99	0.90
44.16	4.43	0.81	6.44	3.62	9.42	63.93	1.01	1.94
53.76	4.45	0.27	2.15	4.18	6.15	71.91	1.12	0.69
35.92	3.30	0.20	1.59	3.10	5.86	48.13	0.75	1.62
55.41	4.32	0.28	2.24	4.04	6.32	72.01	1.02	0.64
53.23	5.01	0.50	3.98	4.51	6.34	74.07	1.55	0.80
56.39	5.40	0.32	2.55	5.08	6.30	79.86	1.71	0.79
55.77	5.26	0.37	2.94	4.89	6.80	77.52	1.65	0.94

Fixed C (%) (ar)	H (%) H_2O (ar)	%H in H_2O	%O in H_2O	H (%) no H_2O (ar)	O (%) no H_2O (ar)	Carbon (%) (ar)	Nitrogen (%) (ar)	Sulfur (%) (ar)
48.22	4.60	0.81	6.45	3.79	9.95	67.00	1.62	0.58
50.29	4.87	0.63	5.02	4.24	9.68	70.38	1.71	0.47
47.43	4.32	1.34	10.65	2.97	11.00	64.41	1.57	0.46
41.83	3.88	1.59	12.61	2.29	9.75	57.64	1.34	0.36
43.71	3.89	1.30	10.36	2.58	11.00	58.65	1.34	0.49
50.83	5.00	0.57	4.56	4.43	7.59	71.33	1.56	0.84
36.47	4.18	1.71	13.55	2.47	12.49	61.32	1.46	0.44
34.42	3.94	2.03	16.13	1.91	11.24	56.80	1.40	0.50
33.93	3.75	1.70	13.51	2.05	10.99	53.72	1.08	0.40
36.89	4.10	1.57	12.47	2.53	11.75	57.53	1.13	0.40
44.33	4.50	1.04	8.24	3.46	9.77	63.95	1.29	0.56
51.86	5.15	0.67	5.34	4.48	9.90	73.56	1.58	0.39
49.26	4.84	0.96	7.66	3.87	10.44	70.46	1.55	0.38
45.41	5.69	1.77	14.08	3.92	12.86	59.68	1.40	0.68
45.48	5.68	1.65	13.07	4.03	12.07	60.83	1.37	0.38
40.25	5.84	1.86	14.78	3.98	11.66	59.57	1.40	0.52
43.72	5.72	1.88	14.96	3.84	10.92	58.94	1.27	0.42
43.55	6.05	1.98	15.70	4.07	11.04	59.95	1.29	0.36
46.58	5.91	1.09	8.66	4.82	10.35	65.59	1.44	0.45
50.57	5.83	0.46	3.68	5.37	8.13	72.89	1.56	0.72
46.37	4.65	0.63	5.02	4.02	7.52	61.05	0.94	0.91
48.57	5.82	0.79	6.24	5.03	9.55	69.89	1.53	0.38
49.95	5.76	0.38	3.06	5.38	9.63	72.54	1.61	0.51
48.42	5.68	0.38	3.01	5.30	7.80	72.21	1.56	0.59
46.05	5.71	1.08	8.54	4.63	9.38	64.57	1.28	0.55
40.18	5.25	1.33	10.53	3.92	11.05	55.50	1.36	0.38
43.22	5.95	1.68	13.31	4.27	11.67	60.20	1.39	0.42

Fixed C (%) (ar)	H (%) H_2O (ar)	%H in H_2O	%O in H_2O	H (%) no H_2O (ar)	O (%) no H_2O (ar)	Carbon (%) (ar)	Nitrogen (%) (ar)	Sulfur (%) (ar)
44.96	5.77	0.96	7.62	4.81	10.21	64.97	1.61	0.49
48.62	5.55	0.75	5.98	4.80	9.69	68.17	1.53	0.63
46.68	5.78	0.88	6.97	4.90	9.14	68.37	1.56	0.66
34.94	4.34	1.06	8.43	3.28	11.68	47.84	0.96	0.33
32.23	4.70	1.39	11.05	3.31	10.83	47.18	0.93	0.29
41.83	5.56	1.65	13.08	3.91	11.70	58.42	1.19	0.34
47.45	5.87	1.89	14.97	3.98	11.92	62.26	1.35	0.29
45.08	5.86	1.83	14.50	4.03	12.53	60.72	1.30	0.30
45.70	5.96	1.67	13.25	4.29	11.81	63.26	1.31	0.48
46.52	5.93	1.86	14.75	4.07	12.75	60.40	1.41	0.24
45.79	5.78	1.92	15.21	3.86	12.06	60.40	1.37	0.39
43.27	5.95	1.91	15.15	4.04	11.48	61.90	1.46	0.22
46.84	5.98	1.66	13.20	4.32	11.94	64.44	1.33	0.48
44.88	5.80	1.92	15.23	3.88	12.53	59.74	1.39	0.32
44.94	5.89	2.07	16.43	3.82	12.18	59.21	1.46	0.55
54.63	4.58	0.30	2.39	4.28	4.13	71.09	1.49	0.61
54.30	4.80	0.25	1.94	4.55	5.40	73.27	1.52	0.58
49.18								5.55
48.61								4.16
50.49								1.59

Fixed C (%) (ar)	H (%) H_2O (ar)	%H in H_2O	%O in H_2O	H (%) no H_2O (ar)	O (%) no H_2O (ar)	Carbon (%) (ar)	Nitrogen (%) (ar)	Sulfur (%) (ar)
48.38								4.00
55.67								0.37
49.18								5.55
								3.48
								5.04
								3.68
								7.53
								3.86
								1.63
								8.03
								5.79
								7.47
								7.67
								4.88
								2.85
								2.72
								4.02

Fixed C (%) (ar)	H (%) H_2O (ar)	%H in H_2O	%O in H_2O	H (%) no H_2O (ar)	O (%) no H_2O (ar)	Carbon (%) (ar)	Nitrogen (%) (ar)	Sulfur (%) (ar)
								6.56
								3.77
								7.12
								3.29
								1.10
								4.99
								7.91
								5.44
								4.67
								2.94

Fixed C (%) (ar)	H (%) H_2O (ar)	%H in H_2O	%O in H_2O	H (%) no H_2O (ar)	O (%) no H_2O (ar)	Carbon (%) (ar)	Nitrogen (%) (ar)	Sulfur (%) (ar)
								2.55
								2.82
								2.50
								1.28
								1.23
								1.24
								1.32
								1.17
								1.23
								1.29
								4.16
								2.70

Fixed C (%) (ar)	H (%) H_2O (ar)	%H in H_2O	%O in H_2O	H (%) no H_2O (ar)	O (%) no H_2O (ar)	Carbon (%) (ar)	Nitrogen (%) (ar)	Sulfur (%) (ar)
								2.48
								0.76
								0.52
								0.56
								0.46
								0.42
								0.75
								0.88
								0.93
								4.37
								1.95
								1.56
								1.94

Fixed C (%) (ar)	H (%) H_2O (ar)	%H in H_2O	%O in H_2O	H (%) no H_2O (ar)	O (%) no H_2O (ar)	Carbon (%) (ar)	Nitrogen (%) (ar)	Sulfur (%) (ar)
								0.70
								0.63
								0.99
								2.05
								0.79
								1.06
								1.88
								4.74
								2.65

Fixed C (%) (ar)	H (%) H_2O (ar)	%H in H_2O	%O in H_2O	H (%) no H_2O (ar)	O (%) no H_2O (ar)	Carbon (%) (ar)	Nitrogen (%) (ar)	Sulfur (%) (ar)
								5.60
								6.22
								3.89
								0.89
								1.12

Fixed C (%) (ar)	H (%) H_2O (ar)	%H in H_2O	%O in H_2O	H (%) no H_2O (ar)	O (%) no H_2O (ar)	Carbon (%) (ar)	Nitrogen (%) (ar)	Sulfur (%) (ar)
								0.96
								5.26
								1.71
								2.20
								2.68
								1.97
								1.56
								1.61
								1.48
								5.15
								2.82
								6.61
								3.81

Fixed C (%) (ar)	H (%) H_2O (ar)	%H in H_2O	%O in H_2O	H (%) no H_2O (ar)	O (%) no H_2O (ar)	Carbon (%) (ar)	Nitrogen (%) (ar)	Sulfur (%) (ar)
								2.35
								1.27
								1.11
								1.04
								0.44
								0.35
								0.35
								0.45
								0.96
								1.30
								1.26
								1.53
								0.59
								0.76
								0.47
								3.03
								3.53
								2.00
								2.72
								3.17
								2.32

Fixed C (%) (ar)	H (%) H_2O (ar)	%H in H_2O	%O in H_2O	H (%) no H_2O (ar)	O (%) no H_2O (ar)	Carbon (%) (ar)	Nitrogen (%) (ar)	Sulfur (%) (ar)
								2.68
								3.52
								2.54
								1.40
								1.34
								1.39
								1.04
								0.97
								1.19
								1.12
								1.01
								8.11
								2.39

Fixed C (%) (ar)	H (%) H_2O (ar)	%H in H_2O	%O in H_2O	H (%) no H_2O (ar)	O (%) no H_2O (ar)	Carbon (%) (ar)	Nitrogen (%) (ar)	Sulfur (%) (ar)
								2.91
								3.25
								4.64
								2.11
								2.43
								4.14
46.35								2.95
45.05								3.18
55.21								1.32
50.95								3.51
44.12								4.12
43.08								7.82
66.56								2.50
17.51								4.00
37.80								4.98
52.29								2.00
23.57								3.27
49.85								2.25
47.42								6.16
13.22								6.37
6.30								6.00

Fixed C (%) (ar)	H (%) H_2O (ar)	%H in H_2O	%O in H_2O	H (%) no H_2O (ar)	O (%) no H_2O (ar)	Carbon (%) (ar)	Nitrogen (%) (ar)	Sulfur (%) (ar)
4.87								7.19
45.21								4.34
4.20								2.73
13.82								2.43
48.78								2.83
45.30								8.88
46.99								3.61
9.63								2.89
43.55								3.28
72.38								4.69
47.58								5.31
51.36								2.95
45.97								3.08
45.05								4.37

Fixed C (%) (ar)	H (%) H_2O (ar)	%H in H_2O	%O in H_2O	H (%) no H_2O (ar)	O (%) no H_2O (ar)	Carbon (%) (ar)	Nitrogen (%) (ar)	Sulfur (%) (ar)

Fixed C (%) (ar)	H (%) H_2O (ar)	%H in H_2O	%O in H_2O	H (%) no H_2O (ar)	O (%) no H_2O (ar)	Carbon (%) (ar)	Nitrogen (%) (ar)	Sulfur (%) (ar)
65.90	4.16	0.25	2.01	3.91	-0.16	75.74	1.24	3.42
58.45	3.70	0.49	3.86	3.21	-1.22	66.16	1.08	3.27
30.52	2.19	0.26	2.02	1.93	1.93	33.71	0.35	4.88
12.60	1.39	0.07	0.53	1.32	5.60	13.85	0.02	3.02
57.36	3.63	0.32	2.56	3.31	0.22	64.98	1.01	3.12
57.57	3.99	0.67	5.34	3.32	-3.45	71.56	1.58	4.72
68.45	4.57	0.45	3.58	4.12	0.60	81.85	1.97	0.98
52.79	3.57	0.20	1.57	3.37	0.74	62.49	1.40	3.10
63.72	4.09	0.68	5.40	3.41	0.35	75.69	1.33	0.78
51.35	3.66	0.44	3.49	3.22	-0.37	63.94	1.42	3.29
61.00	4.13	0.48	3.85	3.65	0.17	74.56	1.83	0.96
42.61	3.15	0.45	3.59	2.70	0.43	51.53	1.18	2.10
71.01	4.34	0.38	3.00	3.96	-0.57	82.02	1.49	1.74
60.01	3.95	0.63	5.02	3.32	-2.21	73.13	1.28	2.54
60.85	3.80	0.44	3.45	3.36	-1.19	71.18	1.22	2.98
17.69	1.35	0.07	0.57	1.28	3.50	20.08	0.18	5.24
62.70	4.22	0.60	4.75	3.62	-2.16	76.66	1.45	1.97
50.47	3.40	0.28	2.25	3.12	0.36	59.66	1.31	4.26
59.77	3.97	0.26	2.09	3.71	0.17	70.50	1.69	2.67
60.35	4.11	0.56	4.46	3.55	-0.88	73.00	1.57	2.29
52.50	4.67	0.09	0.70	4.58	5.53	71.30	1.40	2.49
48.23	4.50	0.08	0.61	4.42	4.98	66.07	1.32	3.03
23.42	2.43	0.11	0.87	2.32	5.95	30.39	0.54	3.53
40.87	4.06	0.08	0.66	3.98	5.12	55.90	1.12	2.39
58.03	4.90	0.14	1.14	4.76	6.89	75.63	1.41	1.09
53.95	5.13	0.11	0.89	5.02	6.70	74.79	1.34	2.14

Fixed C (%) (ar)	H (%) H_2O (ar)	%H in H_2O	%O in H_2O	H (%) no H_2O (ar)	O (%) no H_2O (ar)	Carbon (%) (ar)	Nitrogen (%) (ar)	Sulfur (%) (ar)
40.20	3.93	0.11	0.88	3.82	6.48	55.78	1.08	1.50
39.52	3.81	0.10	0.81	3.71	6.40	55.20	1.10	1.47
52.81	5.20	0.11	0.84	5.09	6.24	75.63	1.49	1.67
8.59	1.18	0.06	0.51	1.12	5.21	12.46	0.19	1.94
55.50	4.97	0.28	2.25	4.69	8.37	72.21	1.70	1.48
58.66	5.40	0.34	2.70	5.06	8.49	77.05	1.79	0.64
51.43	5.39	0.52	4.09	4.87	9.26	70.00	1.56	2.06
55.52	5.29	0.34	2.66	4.95	8.74	73.47	1.69	0.87
61.91	5.27	0.21	1.71	5.06	6.06	79.72	1.41	0.55
58.22	4.83	0.21	1.67	4.62	5.59	74.00	1.46	1.21
55.46	5.05	0.28	2.24	4.77	7.72	73.44	1.55	0.86
58.60	5.58	0.30	2.42	5.28	8.11	79.89	1.77	0.67
55.74	5.16	0.36	2.82	4.80	8.51	72.85	1.73	2.42
59.31	5.44	0.28	2.25	5.16	7.95	78.01	1.80	1.04
48.01								4.71
54.86								0.67
53.22								0.71
58.99								0.60
52.85								0.79
44.03								1.11
47.87								0.80
45.51								0.77
41.17								1.82
47.73								1.54
52.84								0.63

Fixed C (%) (ar)	H (%) H_2O (ar)	%H in H_2O	%O in H_2O	H (%) no H_2O (ar)	O (%) no H_2O (ar)	Carbon (%) (ar)	Nitrogen (%) (ar)	Sulfur (%) (ar)
58.56								0.57
39								0.60
59.2								0.72
56								0.75
56.81								0.70
54.24								1.39
49.92								0.95
52.55								0.71
43.12								1.02
34.31								0.55
59.1								1.00
58.5								0.90
46.13								0.61
43.04								1.02
50.34								1.02
54.25								2.06
57.6								0.77
54.99								1.88
46.08								0.65
45.09								0.58
51.47								0.77
56.1								0.54
54.23								1.82
51.04								1.22

Fixed C (%) (ar)	H (%) H_2O (ar)	%H in H_2O	%O in H_2O	H (%) no H_2O (ar)	O (%) no H_2O (ar)	Carbon (%) (ar)	Nitrogen (%) (ar)	Sulfur (%) (ar)
49.5								0.90
52.57								0.70
45.51								1.29
48.7								2.87
53.19								1.25
52.19								3.20
53.14								2.77
57.73								1.85
48.56								0.45
75.61								0.61
65.34								2.62
54.66								1.10
55.43								4.46
50.74								0.84
59.09								0.65
54.57								0.81
51.12								0.81
43.84								2.15
53.21								1.08
56.82								0.67
58.81								0.63
44.47								0.99
49.26								0.62
51.79								0.73
43.55								0.71
53								0.70

Fixed C (%) (ar)	H (%) H_2O (ar)	%H in H_2O	%O in H_2O	H (%) no H_2O (ar)	O (%) no H_2O (ar)	Carbon (%) (ar)	Nitrogen (%) (ar)	Sulfur (%) (ar)
56.39								1.51
62.3								0.77
56.62								0.85
59.21								1.06
57.04								0.84
58.91								0.68
60.87								0.70
56.07								0.73
52.35								0.70
47.71								0.75
53.1								0.78
35.12								0.78
48.85								0.77
49.78								0.67
51.17								0.89
36.9								0.60
47.52								0.71
44.33								0.94
52.24								0.48
45.81								0.40
54.92								0.50
41.07								0.51
51.3								0.71
58.06								0.75
46.24								1.05
48.31								0.77

Fixed C (%) (ar)	H (%) H_2O (ar)	%H in H_2O	%O in H_2O	H (%) no H_2O (ar)	O (%) no H_2O (ar)	Carbon (%) (ar)	Nitrogen (%) (ar)	Sulfur (%) (ar)
57.09								0.50
52.94								0.76
57.14								0.79
56.31								0.70
38.98								0.42
32.03								0.91
55.9								0.65
42.05								0.51
43.3								0.76
52.61								1.56
48.08								1.33
45.08								2.90
54.22								1.43
54.29								0.94
55.40								1.44
59.66								0.87
61.63								0.74
67.77								2.82
55.23								0.90
47.48								0.94
58.42								0.88
50.46								4.97
51.61								0.82
50.75								0.62
52.28								0.49

Fixed C (%) (ar)	H (%) H_2O (ar)	%H in H_2O	%O in H_2O	H (%) no H_2O (ar)	O (%) no H_2O (ar)	Carbon (%) (ar)	Nitrogen (%) (ar)	Sulfur (%) (ar)
53.56								2.40
54.27								1.62
46.99								0.77
49.87								3.74
44.35								4.12
56.66								3.21
46.97								0.71
59.38								1.02
62.64								0.63
62.48								1.16
62.86								0.63
54.11								0.73
44.95								1.45
58.00								0.86
58.13								1.22
49.70								5.31
52.55								1.14
39.34								0.40

Fixed C (%) (ar)	H (%) H_2O (ar)	%H in H_2O	%O in H_2O	H (%) no H_2O (ar)	O (%) no H_2O (ar)	Carbon (%) (ar)	Nitrogen (%) (ar)	Sulfur (%) (ar)
61.11								0.55
46.26								4.72
41.54								0.82
48.79								10.22
26.45								9.29
47.54								2.75
59.87								1.04
45.98								4.65
39.37								20.51
47.54								
47.92								
45.63								
50.16								
56.38								
56.34								
54.73								3.26
55.68								5.60
61.90								4.58
50.74								3.05
56.98								0.69
49.55								0.62
50.86								0.88
54.87								0.84
58.41								0.95
38.86								0.52
48.39								0.87
27.48								0.34

Fixed C (%) (ar)	H (%) H_2O (ar)	%H in H_2O	%O in H_2O	H (%) no H_2O (ar)	O (%) no H_2O (ar)	Carbon (%) (ar)	Nitrogen (%) (ar)	Sulfur (%) (ar)
54.33								0.64
52.04								0.61
51.95								0.75
52.09								0.68
52.05								0.62
55.80								0.59
33.14								5.33
34.40								15.32
45.44								3.40
40.27								4.64
54.81								1.57

Oxygen (%) (ar)	O (%) no H_2O (ar)	Calorific value Btu/lb (ar)	Calorific value MJ/kg (ar)	Sulfate S (%)	Pyritic S (%)	Organic S (%)	Initial softening (^oF)
37.86	11.27	8369	19.46	0.01	0.03	0.24	
36.97	11.61	8456	19.67	0.02	0.05	0.21	

Oxygen (%) (ar)	O (%) no H_2O (ar)	Calorific value Btu/lb (ar)	Calorific value MJ/kg (ar)	Sulfate S (%)	Pyritic S (%)	Organic S (%)	Initial softening (^oF)
38.45	11.56	8251	19.19	0.02	0.02	0.23	
32.02	11.17	7790	18.12	0.04	0.06	0.22	
29.10	13.28	9680	22.51	0.02	0.01	0.17	
34.91	11.02	8556	19.90	0.01	0.24	0.76	
35.65	11.08	8695	20.22	0.02	0.06	0.23	

Oxygen (%) (ar)	O (%) no H_2O (ar)	Calorific value Btu/lb (ar)	Calorific value MJ/kg (ar)	Sulfate S (%)	Pyritic S (%)	Organic S (%)	Initial softening (^oF)

Oxygen (%) (ar)	O (%) no H_2O (ar)	Calorific value Btu/lb (ar)	Calorific value MJ/kg (ar)	Sulfate S (%)	Pyritic S (%)	Organic S (%)	Initial softening (^oF)
34.48	13.17	8982	20.89	0.03	0.08	0.20	
35.05	13.47	9000	20.93	0.03	0.05	0.19	
34.71	13.39	8963	20.84	0.02	0.04	0.21	
35.08	13.58	8963	20.84	0.03	0.04	0.18	
34.30	13.20	9018	20.97	0.03	0.07	0.20	
34.24	13.28	8984	20.89	0.01	0.08	0.24	
34.52	13.16	8927	20.76	0.01	0.01	0.16	
34.67	13.20	9022	20.98	0.01	0.01	0.18	
34.92	13.23	9008	20.95	0.01	0.01	0.16	
34.85	13.17	9011	20.96	0.01	0.01	0.19	
34.59	13.28	8990	20.91	0.01	0.01	0.16	
34.20	13.16	9009	20.95	0.00	0.01	0.18	
35.40	11.95	8548	19.88	0.00	0.18	0.55	
34.79	11.39	8683	20.19	0.01	0.17	0.61	
37.06	12.44	8734	20.31	0.00	0.05	0.25	
37.46	12.30	8618	20.04	0.02	0.05	0.22	

Oxygen (%) (ar)	O (%) no H_2O (ar)	Calorific value Btu/lb (ar)	Calorific value MJ/kg (ar)	Sulfate S (%)	Pyritic S (%)	Organic S (%)	Initial softening (^oF)
26.76	12.93	10943	25.45	0.01	0.05	0.58	2040
27.18	12.38	10642	24.75	0.01	0.06	0.55	2370
27.05	12.78	10837	25.20	0.01	0.05	0.57	2160
28.95	12.64	10509	24.44	0.01	0.08	0.55	2060
33.99	12.32	9225	21.45	0.02	0.29	1.28	2380
29.36	12.50	9813	22.82	0.00	0.32	1.35	2380
24.18	13.61	10231	23.79	0.00	0.22	0.35	2030
28.15	13.58	9594	22.31	0.00	0.15	0.33	2110
30.59	12.32	9732	22.63	0.00	0.22	0.28	2080
25.99	10.55	9884	22.99	0.00	0.27	0.34	2170
23.51	11.42	10474	24.36	0.01	0.34	0.30	2180
19.04	9.61	11006					2255
16.62	9.71	10859					2060
16.63	10.17	10351					2285
19.79	9.87	10928					2185
15.86	9.42	11028					2100
8.30	6.15	12365					2800
7.45	5.86	8452					2800
8.56	6.32	12307					2800
10.32	6.34	12884					2800
8.85	6.30	13929					2800
9.74	6.80	13631					2775

Oxygen (%) (ar)	O (%) no H_2O (ar)	Calorific value Btu/lb (ar)	Calorific value MJ/kg (ar)	Sulfate S (%)	Pyritic S (%)	Organic S (%)	Initial softening (^oF)
16.39	9.95	11624					2630
14.70	9.68	12198					2610
21.65	11.00	11034					2050
22.36	9.75	9831					2480
21.36	11.00	9949					2535
12.14	7.59	12713					2340
26.04	12.49	10610					2300
27.36	11.24	9797					2195
24.49	10.99	9340					2375
24.21	11.75	10032					2475
18.02	9.77	11304					2800
15.24	9.90	13048					2300
18.09	10.44	12601					2290
26.94	12.86	10325		0.01	0.02	0.65	2170
25.14	12.07	10341		0.01	0.04	0.33	2360
26.44	11.66	10303		0.02	0.03	0.47	2140
25.88	10.92	10210		0.01	0.03	0.38	2330
26.74	11.04	10395		0.01	0.02	0.33	2400
19.01	10.35	11762		0.01	0.02	0.42	2670
11.81	8.13	13136		0.02	0.15	0.55	>2800
12.54	7.52	10805		0.04	0.11	0.76	>2800
15.79	9.55	12414		0.01	0.01	0.36	2490
12.69	9.63	12984		0.01	0.01	0.49	2460
10.81	7.80	13001		0.01	0.02	0.56	2180
17.92	9.38	11436		0.01	0.02	0.52	>2800
21.58	11.05	9610		0.01	0.02	0.35	2470
24.98	11.67	10510		0.01	0.01	0.40	2440

Oxygen (%) (ar)	O (%) no H_2O (ar)	Calorific value Btu/lb (ar)	Calorific value MJ/kg (ar)	Sulfate S (%)	Pyritic S (%)	Organic S (%)	Initial softening (^oF)
17.83	10.21	11530		0.01	0.02	0.46	2550
15.67	9.69	12145	28.24	0.04	0.08	0.51	
16.11	9.14	12187	28.34	0.01	0.14	0.51	
20.11	11.68	8232	19.14	0.02	0.04	0.27	
21.88	10.83	8078	18.79	0.04	0.03	0.22	
24.78	11.70	10083	23.45	0.03	0.03	0.28	
26.89	11.92	10639	24.74	0.03	0.02	0.24	
27.03	12.53	10499	24.42	0.05	0.01	0.24	
25.06	11.81	10964	25.50	0.04	0.03	0.41	
27.50	12.75	10417	24.23	0.02	0.01	0.21	
27.27	12.06	10347	24.06	0.03	0.01	0.35	
26.63	11.48	10589	24.63	0.04	0.01	0.17	
25.14	11.94	11159	25.95	0.04	0.01	0.43	
27.76	12.53	10238	23.81	0.04	0.03	0.25	
28.61	12.18	10182	23.68	0.03	0.10	0.42	
6.52	4.13	12529	29.14	0.04	0.11	0.46	
7.34	5.40	12977	30.18	0.04	0.07	0.47	
		13559	31.53				
		13562	31.54				
		12729	29.60				

Oxygen (%) (ar)	O (%) no H_2O (ar)	Calorific value Btu/lb (ar)	Calorific value MJ/kg (ar)	Sulfate S (%)	Pyritic S (%)	Organic S (%)	Initial softening (^oF)
		13673	31.80				
		12957	30.13				
		13559	31.53				
		11328	26.34				
		9761	22.70				
		11389	26.49				
		10786	25.08				
		11078	25.76				
		11339	26.37				
		10417	24.23				
		11808	27.46				
		11408	26.53				
		10231	23.79				
		12589	29.28				
		11273	26.22				
		11441	26.61				
		11102	25.82				

Oxygen (%) (ar)	O (%) no H_2O (ar)	Calorific value Btu/lb (ar)	Calorific value MJ/kg (ar)	Sulfate S (%)	Pyritic S (%)	Organic S (%)	Initial softening (^oF)
		10395	24.17				
		10985	25.55				
		11364	26.43				
		11696	27.20				
		11980	27.86				
		11293	26.26				
		11230	26.12				
		11526	26.80	0.54	3.96	0.94	
		11881	27.63	0.27	3.57	0.82	
		11276	26.22	0.16	1.55	1.23	

Oxygen (%) (ar)	O (%) no H_2O (ar)	Calorific value Btu/lb (ar)	Calorific value MJ/kg (ar)	Sulfate S (%)	Pyritic S (%)	Organic S (%)	Initial softening (^oF)
		12686	29.50	0.09	1.45	1.01	
		12837	29.85	0.06	1.73	1.03	
		12375	28.78	0.07	1.43	0.99	
		11880	27.63	0.02	0.47	0.80	
		10656	24.78	0.01	0.43	0.79	
		10218	23.76	0.04	0.54	0.66	
		10934	25.43	0.02	0.46	0.85	
		11915	27.71	0.02	0.44	0.71	
		10610	24.67	0.03	0.59	0.60	
		11098	25.81	0.02	0.62	0.65	
		11119	25.86	0.49	3.43	0.49	
		11350	26.40	1.16	1.46	1.16	

Oxygen (%) (ar)	O (%) no H_2O (ar)	Calorific value Btu/lb (ar)	Calorific value MJ/kg (ar)	Sulfate S (%)	Pyritic S (%)	Organic S (%)	Initial softening (^oF)
		9888	23.00	0.32	2.10	0.32	
		10692	24.87	0.01	0.39	0.36	
		11084	25.78	0.01	0.11	0.41	
		11916	27.71	0.01	0.07	0.49	
		11400	26.51	0.01	0.09	0.36	
		8287	19.27	0.02	0.26	0.14	
		12487	29.04	0.01	0.13	0.62	
		12396	28.83	0.01	0.27	0.61	
		11665	27.13	0.01	0.22	0.71	
		11348	26.39	0.01	0.01	0.87	
		11994	27.89	0.01	0.01	0.68	
		12499	29.07	0.01	0.01	0.72	
		11330	26.35	0.01	0.01	0.59	

Oxygen (%) (ar)	O (%) no H_2O (ar)	Calorific value Btu/lb (ar)	Calorific value MJ/kg (ar)	Sulfate S (%)	Pyritic S (%)	Organic S (%)	Initial softening (^oF)
		11653	27.10	0.01	0.13	0.56	
		12342	28.70	0.02	0.14	0.47	
		12218	28.42	0.05	0.58	0.36	
		12322	28.65	0.09	1.27	0.70	
		11584	26.94	0.01	0.25	0.53	
		11878	27.62	0.02	0.49	0.55	
		11511	26.77	0.03	0.87	0.98	
		11204	26.06	0.02	2.84	1.88	
		11183	26.01	0.02	0.45	2.18	

Oxygen (%) (ar)	O (%) no H_2O (ar)	Calorific value Btu/lb (ar)	Calorific value MJ/kg (ar)	Sulfate S (%)	Pyritic S (%)	Organic S (%)	Initial softening (^oF)
		11320	26.32	0.03	2.85	2.73	
		10983	25.54	0.05	3.53	2.63	
		11112	25.84	0.03	1.44	2.42	
		12334	28.68	0.02	0.34	0.54	
		12029	27.97	0.05	0.52	0.55	

Oxygen (%) (ar)	O (%) no H_2O (ar)	Calorific value Btu/lb (ar)	Calorific value MJ/kg (ar)	Sulfate S (%)	Pyritic S (%)	Organic S (%)	Initial softening (^oF)
		11856	27.57	0.03	0.44	0.49	
		11135	25.90	0.16	4.80	0.30	
		12421	28.89	0.07	0.78	0.86	
		12085	28.10	0.04	1.38	0.78	
		12306	28.62	0.05	1.36	1.27	
		10475	24.36	0.03	1.21	0.72	
		11622	27.03	0.03	0.50	1.03	
		11206	26.06	0.03	0.94	0.64	
		10360	24.09	0.03	0.81	0.65	
		11475	26.69	0.01	3.09	2.05	
		12390	28.81	0.01	0.84	1.96	
		11467	26.67	0.02	5.41	1.19	
		11799	27.44	0.02	1.44	2.36	

Oxygen (%) (ar)	O (%) no H_2O (ar)	Calorific value Btu/lb (ar)	Calorific value MJ/kg (ar)	Sulfate S (%)	Pyritic S (%)	Organic S (%)	Initial softening (^oF)
		12630	29.37	0.02	1.47	0.85	
		12985	30.20	0.01	0.49	0.77	
		12746	29.64	0.01	0.38	0.72	
		12545	29.17	0.01	0.30	0.73	
		7857	18.27	0.01	0.37	0.27	
		10748	24.99	0.01	0.45	0.25	
		11848	27.55	0.01	0.34	0.26	
		11589	26.95	0.03	0.59	0.33	
		8466	19.69	0.03	0.40	0.53	
		11300	26.28	0.02	0.47	0.81	
		12159	28.28	0.01	0.35	0.89	
		11746	27.32	0.02	0.60	0.91	
		12355	28.73	0.02	0.05	0.52	
		11905	27.69	0.03	0.24	0.49	
		11476	26.69	0.02	0.02	0.43	
		11335	26.36	0.02	2.25	0.76	
		10963	25.50	0.05	2.35	1.12	
		11495	26.73	0.02	1.03	0.95	
		9081	21.12	0.02	1.45	1.26	
		11348	26.39	0.04	2.19	0.94	
		12114	28.17	0.01	0.50	0.02	

Oxygen (%) (ar)	O (%) no H_2O (ar)	Calorific value Btu/lb (ar)	Calorific value MJ/kg (ar)	Sulfate S (%)	Pyritic S (%)	Organic S (%)	Initial softening (^oF)
		12477	29.02	0.02	0.69	1.98	
		11714	27.24	0.02	1.51	1.99	
		11836	27.53	0.03	0.91	1.60	
		12671	29.47	0.03	0.30	0.92	
		11915	27.71	0.61	0.94	0.92	
		10125	23.55	0.88	2.54	0.86	
		5385	12.52	0.93	2.49	1.79	
		10738	24.97	0.93	4.58	2.44	
		12010	27.93	0.92	2.29	1.30	
		11999	27.90	0.91	2.14	1.42	
		12002	27.91	0.92	2.45	1.84	
		10282	23.91	0.10	7.90	0.11	
		11913	27.70	0.06	1.01	1.31	

Oxygen (%) (ar)	O (%) no H_2O (ar)	Calorific value Btu/lb (ar)	Calorific value MJ/kg (ar)	Sulfate S (%)	Pyritic S (%)	Organic S (%)	Initial softening (^oF)
		11264	26.20	0.05	1.74	1.12	
		11011	25.61	0.05	2.12	1.08	
		11060	25.72	0.09	3.31	1.24	
		11434	26.59	0.03	0.98	1.09	
		11408	26.53	0.04	1.37	1.03	
		11503	26.75	0.09	2.76	1.29	
		11840	27.54				
		12871	29.93				
		12327	28.67				
		13381	31.12				
		12388	28.81				
		11436	26.60				
		12665	29.45				
		12778	29.72				
		10874	25.29				
		13594	31.61				
		13065	30.38				
		13412	31.19				
		12362	28.75				
		12127	28.20				
		2779	6.46				

Oxygen (%) (ar)	O (%) no H_2O (ar)	Calorific value Btu/lb (ar)	Calorific value MJ/kg (ar)	Sulfate S (%)	Pyritic S (%)	Organic S (%)	Initial softening (^oF)
		2073	4.82				
		12638	29.39				
		2220	5.16				
		4033	9.38				
		12639	29.39				
		11654	27.10				
		11904	27.68				
		3360	7.81				
		12148	28.25				
		1525	3.55				
		12713	29.56				
		13240	30.79				
		11927	27.74				
		11964	27.82				

Oxygen (%) (ar)	O (%) no H_2O (ar)	Calorific value Btu/lb (ar)	Calorific value MJ/kg (ar)	Sulfate S (%)	Pyritic S (%)	Organic S (%)	Initial softening (^oF)

Oxygen (%) (ar)	O (%) no H_2O (ar)	Calorific value Btu/lb (ar)	Calorific value MJ/kg (ar)	Sulfate S (%)	Pyritic S (%)	Organic S (%)	Initial softening (^oF)
1.85	-0.16	13209	30.72	0.06	2.67	0.69	2110
2.64	-1.22	11313	26.31	0.08	2.58	0.61	2550
3.95	1.93	5902	13.73	0.07	4.27	0.54	2640
6.13	5.60	2451	5.70	0.02	2.84	0.16	>2800
2.78	0.22	11379	26.46	0.01	2.44	0.67	2570
1.89	-3.45	12202	28.38	0.05	3.67	1.00	1960
4.18	0.60	13783	32.05	0.01	0.11	0.86	>2800
2.31	0.74	10966	25.50	0.03	2.33	0.74	2190
5.75	0.35	12431	28.91	0.03	0.27	0.48	2620
3.12	-0.37	11076	25.76	0.07	2.31	0.91	2090
4.02	0.17	12618	29.34	0.00	0.15	0.81	>2800
4.02	0.43	8826	20.53	0.02	1.49	0.59	2510
2.43	-0.57	13944	32.43	0.03	1.13	0.58	2590
2.81	-2.21	12179	28.32	0.03	1.92	0.59	2290
2.26	-1.19	12162	28.28	0.08	2.31	0.59	2510
4.07	3.50	3641	8.47	0.14	5.08	0.02	2350
2.59	-2.16	12823	29.82	0.09	1.23	0.65	2460
2.61	0.36	10457	24.32	0.12	3.46	0.68	2310
2.26	0.17	12280	28.56	0.11	1.84	0.72	2580
3.58	-0.88	12356	28.73	0.08	1.41	0.80	2370
6.23	5.53	12933	30.08	0.15	1.66	0.68	2170
5.59	4.98	12079	28.09	0.06	2.35	0.62	2460
6.82	5.95	5551	12.91	0.43	2.81	0.29	2550
5.78	5.12	10147	23.60	0.11	1.78	0.50	2540
8.03	6.89	13390	31.14	0.17	0.38	0.54	2640
7.59	6.70	13508	31.41	0.08	1.20	0.86	2070

Oxygen (%) (ar)	O (%) no H_2O (ar)	Calorific value Btu/lb (ar)	Calorific value MJ/kg (ar)	Sulfate S (%)	Pyritic S (%)	Organic S (%)	Initial softening (^oF)
7.36	6.48	10072	23.42	0.06	0.81	0.63	2590
7.21	6.40	9908	23.04	0.03	0.84	0.60	2630
7.08	6.24	13586	31.60	0.04	0.77	0.86	2450
5.72	5.21	2180	5.07	0.03	1.68	0.23	2720
10.62	8.37	12789	29.74	0.25	0.16	1.07	>2800
11.19	8.49	13607	31.64	0.02	0.02	0.60	>2800
13.35	9.26	12450	28.95	0.40	0.71	0.95	2040
11.40	8.74	13021	30.28	0.01	0.09	0.77	2780
7.77	6.06	14138	32.88	0.00	0.02	0.53	2470
7.26	5.59	13031	30.30	0.28	0.19	0.74	2520
9.96	7.72	12860	29.91	0.00	0.04	0.82	2760
10.53	8.11	14080	32.74	0.00	0.02	0.65	2500
11.33	8.51	12818	29.81	0.56	0.90	0.96	1980
10.20	7.95	13725	31.92	0.00	0.04	1.00	>2800
		12235	28.45	0.05	2.57	2.09	
		13255	30.83	0.00	0.04	0.63	
		12917	30.04	0.00	0.07	0.64	
		13959	32.46	0.00	0.02	0.58	
		12962	30.14	0.00	0.05	0.74	
		10911	25.37	0.03	0.43	0.65	
		11693	27.19	0.14	0.05	0.61	
		11174	25.99	0.01	0.16	0.60	
		10289	23.93	0.00	0.86	0.96	
		11554	26.87	0.01	0.63	0.90	
		12905	30.01	0.00	0.03	0.60	

Oxygen (%) (ar)	O (%) no H_2O (ar)	Calorific value Btu/lb (ar)	Calorific value MJ/kg (ar)	Sulfate S (%)	Pyritic S (%)	Organic S (%)	Initial softening (^oF)
		13845	32.20	0.01	0.02	0.54	
		9876	22.97	0.05	0.03	0.52	
		13923	32.38	0.00	0.00	0.72	
		13310	30.95	0.04	0.00	0.71	
		13563	31.54	0.00	0.03	0.67	
		13111	30.49	0.02	0.58	0.79	
		12530	29.14	0.06	0.32	0.57	
		13251	30.82	0.00	0.00	0.71	
		10683	24.84	0.00	0.26	0.76	
		8618	20.04	0.01	0.10	0.44	
		17593	40.91	0.04	0.12	0.84	
		13986	32.53	0.02	0.13	0.75	
		11508	26.76	0.06	0.04	0.51	
		10785	25.08	0.04	0.33	0.65	
		12635	29.38	0.02	0.32	0.68	
		13387	31.13	0.02	0.85	1.19	
		11595	26.97	0.03	0.25	0.49	
		12554	29.20	0.01	1.09	0.78	
		11442	26.61				
		11247	26.16	0.01	0.07	0.50	
		12681	29.49	0.03	0.10	0.64	
		13567	31.55				
		13474	31.33	0.22	0.59	1.01	
		12137	28.23				

Oxygen (%) (ar)	O (%) no H_2O (ar)	Calorific value Btu/lb (ar)	Calorific value MJ/kg (ar)	Sulfate S (%)	Pyritic S (%)	Organic S (%)	Initial softening (^oF)
		12085	28.10				
		12781	29.72				
		11335	26.36	0.10	0.47	0.72	
		12155	28.27	0.08	1.74	1.05	
		12915	30.03	0.10	0.13	1.02	
		12852	29.89	0.25	1.39	1.56	
		13097	30.46	0.13	1.36	1.28	
		13985	32.52	0.35	0.56	0.94	
		9894	23.01	0.00	0.09	0.36	
		14763	34.33	0.02	0.06	0.53	
		12894	29.99	0.29	1.31	1.02	
		12433	28.91	0.13	0.27	0.70	
		12876	29.94	0.44	2.46	1.56	
		12630	29.37	0.07	0.02	0.75	
		14343	33.36				
		13407	31.18				
		12413	28.87				
		11004	25.59				
		12724	29.59				
		13989	32.53				
		14260	33.16				
		10962	25.49	0.28	0.21	0.50	
		11978	27.86	0.03	0.04	0.55	
		12402	28.84	0.03	0.04	0.66	
		10673	24.82	0.10	0.05	0.56	
		12242	28.47	0.04	0.19	0.47	

Oxygen (%) (ar)	O (%) no H_2O (ar)	Calorific value Btu/lb (ar)	Calorific value MJ/kg (ar)	Sulfate S (%)	Pyritic S (%)	Organic S (%)	Initial softening (^oF)
		13702	31.87	0.43	0.23	0.85	
		14007	32.57	0.00	0.09	0.68	
		13396	31.15	0.14	0.11	0.60	
		13907	32.34	0.27	0.09	0.70	
		13309	30.95	0.00	0.12	0.72	
		14236	33.11	0.08	0.06	0.54	
		14460	33.63	0.02	0.02	0.66	
		13728	31.93				
		13052	30.35	0.00	0.08	0.62	
		12143	28.24	0.04	0.07	0.64	
		13082	30.42	0.00	0.03	0.75	
		8937	20.78	0.06	0.23	0.49	
		12253	28.50	0.09	0.08	0.60	
		12726	29.60	0.01	0.03	0.63	
		12713	29.57	0.04	0.17	0.68	
		9673	22.50	0.07	0.05	0.48	
		11940	27.77	0.04	0.04	0.63	
		11203	26.05	0.06	0.24	0.64	
		12596	29.29	0.03	0.01	0.44	
		11190	26.02	0.01	0.00	0.39	
		13186	30.67	0.00	0.01	0.49	
		10250	23.84	0.01	0.03	0.47	
		12266	28.53	0.03	0.05	0.63	
		14002	32.56	0.02	0.03	0.70	
		11226	26.11	0.01	0.32	0.72	
		12034	27.99	0.02	0.10	0.65	

Oxygen (%) (ar)	O (%) no H_2O (ar)	Calorific value Btu/lb (ar)	Calorific value MJ/kg (ar)	Sulfate S (%)	Pyritic S (%)	Organic S (%)	Initial softening (^oF)
		13428	31.23	0.09	0.00	0.41	
		12638	29.39	0.00	0.03	0.73	
		13724	31.92	0.02	0.03	0.74	
		13687	31.83	0.05	0.01	0.64	
		9828	22.86	0.01	0.00	0.41	
		8241	19.17	0.02	0.36	0.53	
		13312	30.96	0.06	0.04	0.55	
		10149	23.60	0.06	0.05	0.40	
		10814	25.15	0.00	0.12	0.64	
		12790	29.74	0.00	0.50	1.06	
		11630	27.05	0.07	0.60	0.66	
		11370	26.44	0.00	1.49	1.41	
		13070	30.40	0.95	0.00	0.48	
		13800	32.09	0.73	0.04	0.18	
		14090	32.77	0.78	0.03	0.63	
		14450	33.60	0.84	0.03	0.00	
		13610	31.65	0.69	0.03	0.02	
		13410	31.19	1.01	0.39	1.42	
		10840	25.21	0.02	0.02	0.02	
		13410	31.19	0.61	0.00	0.34	
		12050	28.02	0.74	0.03	0.11	
		12670	29.47	1.49	0.44	3.05	
		12180	28.33	0.75	0.04	0.05	
		10630	24.72	0.56	0.03	0.04	
		13170	30.63	0.44	0.03	0.03	

Oxygen (%) (ar)	O (%) no H_2O (ar)	Calorific value Btu/lb (ar)	Calorific value MJ/kg (ar)	Sulfate S (%)	Pyritic S (%)	Organic S (%)	Initial softening (^oF)
		12750	29.65	1.10	0.22	1.08	
		11260	26.19	0.79	0.11	0.72	
		12350	28.72				
		11170	25.98				
		13290	30.91				
				1.21	0.63	1.37	
		11300	26.28				
		13580	31.58				
		14290	33.23				
		12420	28.88	0.44	0.06	0.14	
		14300	33.26	0.51	0.21	0.45	
		13290	30.91				
		13294	30.92				
		11159	25.95				
		13541	31.49				
		14079	32.74				
		12235	28.45				
		12674	29.47				
		9303	21.63				

Oxygen (%) (ar)	O (%) no H_2O (ar)	Calorific value Btu/lb (ar)	Calorific value MJ/kg (ar)	Sulfate S (%)	Pyritic S (%)	Organic S (%)	Initial softening (^oF)
		14057	32.69				
		11610	27.00				
		10312	23.98				
		12208	28.39				
		7437	17.30				
		10629	24.72				
		13611	31.65				
		10901	25.35				
		9915	23.06				
		12086	28.11				
		12314	28.64				
		11643	27.08				
		12862	29.91				
		13665	31.78				
		13901	32.33				
		13661	31.77				
		11525	26.80	0.40	4.19	1.02	
		12740	29.63				
		10489	24.39				
		14397	33.48	0.02	0.04	0.62	
		12590	29.28	0.00	0.00	0.62	
		12971	30.17	0.00	0.02	0.87	
		13772	32.03	0.04	0.07	0.73	
		14449	33.60	0.05	0.04	0.87	
		10091	23.47	0.03	0.06	0.43	
		12661	29.44	0.00	0.08	0.80	
		7896	18.36				

Oxygen (%) (ar)	O (%) no H_2O (ar)	Calorific value Btu/lb (ar)	Calorific value MJ/kg (ar)	Sulfate S (%)	Pyritic S (%)	Organic S (%)	Initial softening (^oF)
		14080	32.74	0.03	0.10	0.52	
		13360	31.07	0.10	0.02	0.50	
		13624	31.68	0.06	0.12	0.57	
		13644	31.73	0.00	0.01	0.67	
		13617	31.67	0.00	0.05	0.57	
		14255	33.15	0.01	0.02	0.57	
		9400	21.86	0.12	3.29	1.92	
		10002	23.26	0.64	10.99	3.69	
		11180	26.00				
		10740	24.98				
		12989	30.21				

Ash Fusion Temperatures			
Soft (^oF)	Hemisphere (^oF)	Fluid (^oF)	Free swelling index
			0.0
			0.0

Ash Fusion Temperatures			
Soft (^oF)	Hemisphere (^oF)	Fluid (^oF)	Free swelling index
			0.0
			0.0
			0.0
			0.0
			0.0

Ash Fusion Temperatures			
Soft (^oF)	Hemisphere (^oF)	Fluid (^oF)	Free swelling index

Ash Fusion Temperatures			
Soft (^oF)	Hemisphere (^oF)	Fluid (^oF)	Free swelling index
			0.0
			0.0
			0.0
			0.0
			0.0
			0.0
			0.0
			0.0
			0.0
			0.0
			0.0
			0.0
			0.0
			0.0
			0.0
			0.0

Ash Fusion Temperatures			
Soft (^oF)	Hemisphere (^oF)	Fluid (^oF)	Free swelling index
2070	2090	2110	0.0
2390	2410	2460	0.0
2200	2270	2290	0.0
2100	2130	2160	0.0
2470	2570	2620	0.0
2460	2630	2770	0.0
2110	2370	2420	0.0
2130	2160	2260	0.0
2090	2100	2110	0.0
2330	2490	2580	0.0
2280	2570	2620	0.0
2285	2335	2390	0.0
2075	2125	2160	0.0
2315	2395	2490	0.0
2270	2385	2480	0.0
2140	2200	2290	0.0
2800	2800	2800	1.0
2800	2800	2800	1.0
2800	2800	2800	1.0
2800	2800	2800	4.0
2800	2800	2800	4.0
2800	2800	2800	4.0

Ash Fusion Temperatures			
Soft (^oF)	Hemisphere (^oF)	Fluid (^oF)	Free swelling index
2680	2710	2760	0.0
2670	2700	2740	0.0
2085	2135	2175	0.0
2520	2590	2685	0.0
2560	2600	2695	0.0
2405	2490	2570	3.0
2385	2460	2525	0.0
2220	2300	2420	0.0
2465	2590	2680	0.0
2540	2600	2650	0.0
2800	2800	2800	1.0
2320	2385	2445	0.0
2310	2350	2400	0.0
2260	2270	2290	0.0
2400	2410	2480	0.0
2200	2230	2280	0.0
2380	2420	2610	0.0
2470	2490	2550	0.0
2760	2790	>2800	1.5
>2800	>2800	>2800	6.0
>2800	>2800	>2800	1.0
2610	2670	2750	2.5
2680	2710	>2800	3.0
2300	2360	2600	4.5
>2800	>2800	>2800	1.0
2530	2560	2690	0.0
2550	2590	>2800	0.0

Ash Fusion Temperatures			
Soft (^oF)	Hemisphere (^oF)	Fluid (^oF)	Free swelling index
2640	2670	2770	1.0
			1.5
			2.5
			0.0
			0.0
			0.0
			0.0
			0.0
			0.0
			0.0
			0.0
			0.0
			0.0
			0.0
			0.0
			3.0
			7.0

Ash Fusion Temperatures			
Soft (^oF)	Hemisphere (^oF)	Fluid (^oF)	Free swelling index

Ash Fusion Temperatures			
Soft (^oF)	Hemisphere (^oF)	Fluid (^oF)	Free swelling index

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Soft (^oF)	Hemisphere (^oF)	Fluid (^oF)	Free swelling index

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Soft (^oF)	Hemisphere (^oF)	Fluid (^oF)	Free swelling index

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Soft (^oF)	Hemisphere (^oF)	Fluid (^oF)	Free swelling index

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Soft (^oF)	Hemisphere (^oF)	Fluid (^oF)	Free swelling index

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Soft (^oF)	Hemisphere (^oF)	Fluid (^oF)	Free swelling index

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Soft (^oF)	Hemisphere (^oF)	Fluid (^oF)	Free swelling index

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Soft (^oF)	Hemisphere (^oF)	Fluid (^oF)	Free swelling index

Ash Fusion Temperatures			
Soft (^oF)	Hemisphere (^oF)	Fluid (^oF)	Free swelling index

Ash Fusion Temperatures			
Soft (^oF)	Hemisphere (^oF)	Fluid (^oF)	Free swelling index

Ash Fusion Temperatures			
Soft (^oF)	Hemisphere (^oF)	Fluid (^oF)	Free swelling index

Ash Fusion Temperatures			
Soft (^oF)	Hemisphere (^oF)	Fluid (^oF)	Free swelling index
2230	2490	2640	8.5
2600	2630	2650	7.5
2700	2720	2750	1.0
>2800	>2800	>2800	0.0
2630	2670	2730	7.5
2030	2260	2380	8.5
>2800	>2800	>2800	8.5
2530	2580	2600	8.5
2700	2760	2780	1.5
2170	2430	2450	8.5
>2800	>2800	>2800	8.5
2650	2690	2760	7.5
2660	2680	2730	8.5
2480	2510	2580	8.5
2580	2600	2630	8.5
2440	2470	2570	0.0
2530	2560	2620	8.5
2420	2470	2560	8.5
2650	2680	2760	8.5
2470	2540	2680	8.5
2410	2510	2540	8.0
2540	2570	2670	7.5
2600	2630	2670	1.5
2610	2640	2660	7.5
2700	2720	2750	7.5
2120	2420	2550	7.5

Ash Fusion Temperatures			
Soft (^oF)	Hemisphere (^oF)	Fluid (^oF)	Free swelling index
2730	2780	>2800	7.5
2730	2770	>2800	7.0
2540	2590	2700	7.5
>2800	>2800	>2800	0.0
>2800	>2800	>2800	1.0
>2800	>2800	>2800	1.0
2150	2190	2330	1.0
>2800	>2800	>2800	1.0
2540	2580	2700	5.5
2600	2680	2770	7.0
>2800	>2800	>2800	1.0
2560	2590	2620	0.5
2050	2100	2390	1.0
>2800	>2800	>2800	0.5

Ash Fusion Temperatures			
Soft (^oF)	Hemisphere (^oF)	Fluid (^oF)	Free swelling index

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Soft (^oF)	Hemisphere (^oF)	Fluid (^oF)	Free swelling index

Ash Fusion Temperatures			
Soft (^oF)	Hemisphere (^oF)	Fluid (^oF)	Free swelling index

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Soft (^oF)	Hemisphere (^oF)	Fluid (^oF)	Free swelling index

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Soft (^oF)	Hemisphere (^oF)	Fluid (^oF)	Free swelling index

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Soft (^oF)	Hemisphere (^oF)	Fluid (^oF)	Free swelling index

Ash Fusion Temperatures			
Soft (^oF)	Hemisphere (^oF)	Fluid (^oF)	Free swelling index