



Analytical Results for Agricultural Soils Samples from a Monitoring Program Near Deer Trail, Colorado (USA)

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Contents

Abstract.....	1
Introduction.....	2
Purpose of Monitoring Soils	4
Approach for Monitoring Soils	4
Methodology.....	7
Sampling Methods.....	7
Analytical Methods	7
Discussion and Results.....	8
Acknowledgments.....	10
References Cited.....	10

Figures

1. Metro Wastewater Reclamation District of Denver (Metro District) biosolids application farm and study area location.....	2
2. Typical land usage for the study area	3
3. Biosolids as typically seen after broadcast application to agricultural land.....	3
4. Monitoring fields' measurements and layout.....	5
5. Elbert County, CO, monitoring fields location	6
6. Arapahoe County, CO, monitoring field location.....	6
7. Soil sampling in the field	7

Tables

1. Field location, latitude/longitude	5
2. Analytical methods used for soil analyses	8
3. Analytical results for the 1999 composite soil samples, Deer Trail, CO, Study Area	13
4. Analytical results for the 2000 composite soil samples, Deer Trail, CO, Study Area.....	26
5. Analytical results for the 2002 composite soil samples, Deer Trail, CO, Study Area.....	37
6. Analytical results for the 1999 individual subsamples from the Arapahoe County Middle Field, Deer Trail, CO, Study Area...	50
7. Analytical results for the 2000 individual subsamples from the Arapahoe County Middle Field, Deer Trail, CO, Study Area...	56
8. Analytical results for the 2002 individual subsamples from the Arapahoe County Middle Field, Deer Trail, CO, Study Area...	69
9. Analytical results for the 1999 individual subsamples from the Elbert County Upper Field, Deer Trail, CO, Study Area.....	79
10. Analytical results for the 1999 individual subsamples from the Elbert County Middle Field, Deer Trail, CO, Study Area	92
11. Analytical results for the 2000 individual subsamples from the Elbert County Upper Field, Deer Trail, CO, Study Area.....	99
12. Analytical results for the 2000 individual subsamples from the Elbert County Middle Field, Deer Trail, CO, Study Area	112
13. Analytical results for the 2000 individual subsamples from the Elbert County Lower Field, Deer Trail, CO, Study Area	124
14. Analytical results for the 2002 individual subsamples from the Elbert County Middle Field, Deer Trail, CO, Study Area	137
15. Analytical results for gross alpha and beta and plutonium isotopes for the 1999, 2000, and 2002 composite soil samples....	147

Analytical Results for Agricultural Soils Samples from a Monitoring Program Near Deer Trail, Colorado (USA)

By J.G. Crock, D.B. Smith, and T.J.B. Yager

Abstract

Since late 1993, Metro Wastewater Reclamation District of Denver (Metro District, MWRD), a large wastewater treatment plant in Denver, Colorado, has applied Grade I, Class B biosolids to about 52,000 acres of nonirrigated farmland and rangeland near Deer Trail, Colorado, USA. In cooperation with the Metro District in 1993, the U.S. Geological Survey (USGS) began monitoring groundwater at part of this site. In 1999, the USGS began a more comprehensive monitoring study of the entire site to address stakeholder concerns about the potential chemical effects of biosolids applications to water, soil, and vegetation. This more comprehensive monitoring program has recently been extended through 2010. Monitoring components of the more comprehensive study include biosolids collected at the wastewater treatment plant, soil, crops, dust, alluvial and bedrock groundwater, and stream bed sediment. Soils for this study were defined as the plow zone of the dry land agricultural fields—the top twelve inches of the soil column. This report presents analytical results for the soil samples collected at the Metro District farm land near Deer Trail, Colorado, during three separate sampling events during 1999, 2000, and 2002. Soil samples taken in 1999 were to be a representation of the original baseline of the agricultural soils prior to any biosolids application. The soil samples taken in 2000 represent the soils after one application of biosolids to the middle field at each site and those taken in 2002 represent the soils after two applications. There have been no biosolids applied to any of the four control fields. The next soil sampling is scheduled for the spring of 2010.

Priority parameters for biosolids identified by the stakeholders and also regulated by Colorado when used as an agricultural soil amendment include the total concentrations of nine trace elements (arsenic, cadmium, copper, lead, mercury, molybdenum, nickel, selenium, and zinc), plutonium isotopes, and gross alpha and beta activity (Colorado Department of Public Health and Environment, Hazardous Materials and Waste Management Division, 1997; Colorado Department of Public Health and Environment, 1998; U.S. Environmental Protection Agency, 1993). Since these were the identified priority parameters for the biosolids, the soils have the same set of priority parameters. Although the composite soils' priority analytes have been reported earlier to Metro District, the remaining elemental datasets for both the composite soils samples and selected fields' individual subsamples' data are presented here for the first time. More information about the other monitoring components is presented elsewhere in the literature (<http://co.water.usgs.gov/projects/CO406/CO406.html>).

In general, the objective of each component of the study was to determine whether concentrations of priority parameters (1) were higher than regulatory limits, (2) were increasing with time, and/or (3) were significantly higher in biosolids-applied areas than in a similar farmed area where biosolids were not applied.

The method chosen for sampling the soils proved to be an efficient and reliable representation of the average composition of each field. This was shown by analyzing individual subsamples, averaging the resulting values, and then comparing the values to the composited samples' values. The soil chemistry shows distinct differences between the two sites, most likely due to the different underlying parent material.

Biosolids data were used to compile an inorganic-chemical biosolids signature that can be contrasted with the geochemical signature of the agricultural soils for this site. The biosolids signature and an understanding of the geology and hydrology of the site can be used to separate biosolids effects from natural geochemical effects. Elements of particular interest for a biosolids signature after application in the soils include bismuth, copper, silver, mercury, and phosphorus. This signature is due to the large difference between the applied biosolids and the original soil content of these elements.

Introduction

Since 1993, the Metro Wastewater Reclamation District of Denver (Metro District) has been applying biosolids from the Denver metropolitan area to their property near Deer Trail, Colorado (fig.1), as an agricultural soil amendment. The biosolids are applied to nonirrigated farmland according to agronomic loading rates using broadcast technology.

In 1999, the Metro District property, known as the METROGRO Farm, encompassed about 81 mi² (52,000 acres) of farmland in Arapahoe and Elbert counties, Colorado. The Metro District property and surrounding private property are herein referred to as “the study area.”

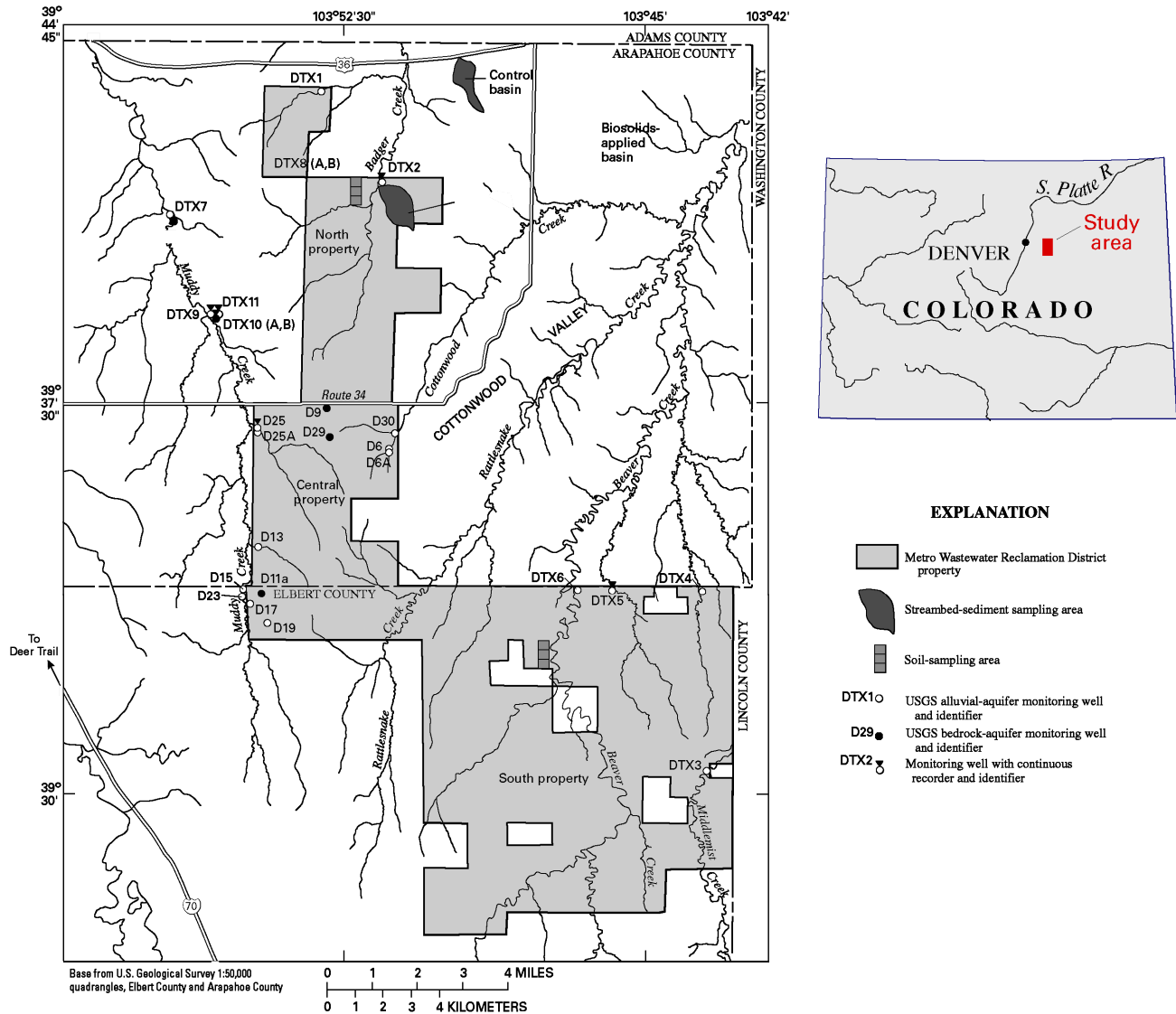


Figure 1. Metro Wastewater Reclamation District of Denver (Metro District) biosolids application farm and study area location.

Soils in the study area generally are sandy or loamy on flood plains and stream terraces, clayey to loamy on gently sloping to rolling uplands, and sandy and shaley on steeper uplands. About one-half of the Metro District property is farmed; the remaining is rangeland with some pasture. Land use within the rest of

the study area during 1993 through 2008 mostly was rangeland or pasture with some cropland. Farmland in the study area is not irrigated. Figures 2a and 2b depict the typical land use of the study area. Biosolids were applied to the land surface of the Metro District property as an agricultural soil amendment, and the primary crop was wheat. Figure 3 shows a typical example of what fresh biosolids (the darker colored patches with the white arrows) look like on the landscape after a single broadcast application.

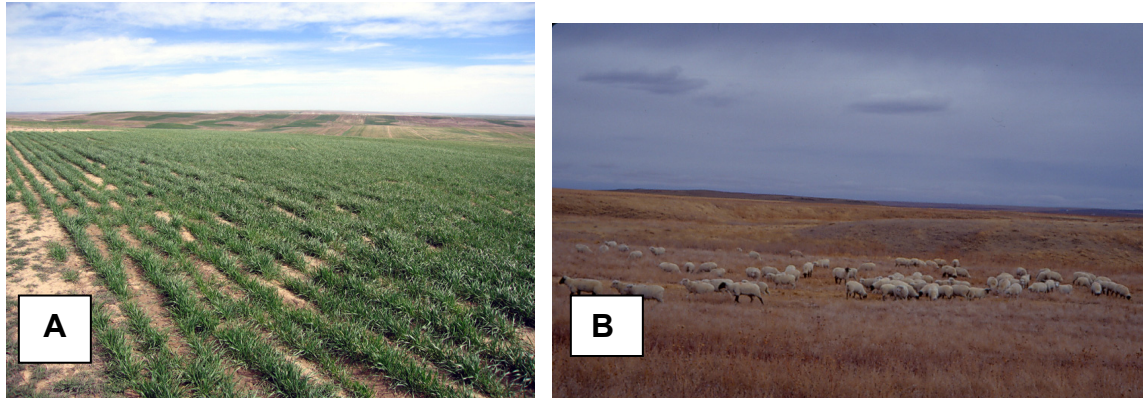


Figure 2. Typical land use for the study area.



Figure 3. Biosolids as typically seen after broadcast application to agricultural land.

The main questions to be addressed in soil sampling include: How does the application of biosolids affect soil chemistry? Is there short-term and(or) long-term buildup of metals and(or) radioactivity caused by the application of biosolids? Is this buildup, if any, within acceptable limits for soil quality as established by Federal and state agencies?

This report presents all analytical data collected to date for the composited soil samples and selected individual subsamples.

Purpose of Monitoring Soils

Biosolids are known to contain elevated concentrations of certain heavy metals. The use of biosolids as an agricultural soil amendment has caused some level of concern among the citizens of Arapahoe and Elbert counties regarding the short-term and long-term impact on soil quality. Biosolids data are presented elsewhere for this study (Crock and others, 2008a, b). The purpose of monitoring the composition of soil is to establish an independent geochemical database on the composition of soil before the application of biosolids, and then to establish a database after the application. These data will enable recognition and quantification of any change in soil composition caused by the application of biosolids to agricultural soils or by other natural or human-induced processes.

Approach for Monitoring Soils

In August 1999, the USGS began monitoring soils on two sites, one site on MWRD property in Arapahoe County and one site on MWRD property in Elbert County. The sites were monitored for priority parameters consisting of (1) nine trace elements for which biosolids are regulated (Colorado Department of Public Health and Environment, Hazardous Materials and Waste Management Division, 1997): arsenic, cadmium, copper, lead, mercury, molybdenum, nickel, selenium, and zinc, and (2) plutonium, and gross alpha and beta activity. The radioactivity analyses were included in response to public concerns that biosolids radioactivity could increase from the transfer of water from the Lowry Landfill Superfund site to the MWRD. Soil samples were collected once in (1999) before the application of biosolids to monitoring sites, and the data were reported by Stevens and others (2003). The 1999 sampling occurred before biosolids were applied. The study continued through two cycles of biosolids application and crop harvest with soil sampling done shortly after each harvest. Soils were sampled again in 2000 after one biosolids application to the middle field of each site and again in 2002 after a second biosolids application. Fields that received biosolids applications were monitored along with fields that received no biosolids, which represented reference conditions for comparison. These data are reported by Yager and others (2004c). The next soil sampling is scheduled for the spring of 2010, after five applications of biosolids have been made to the middle fields of each county site.

Table 1 lists the fields' location. Figure 4 shows the stylized layout and measurements for each test site. Figures 5 and 6 show the Elbert and Arapahoe County monitoring fields' locations, respectively, in greater detail than figure 1.

Each of the two soil-monitoring sites consisted of three 20-acre (933 ft x 933 ft) fields separated by 100-foot buffer zones (fig. 4). Biosolids were applied to the center 20-acre field at each site after the initial soil sampling and again after each harvest. The other two 20-acre fields at each site never had biosolids applied and were used as "control" fields to determine the natural variability of soil composition for the duration of the study. All three 20-acre fields at each site were farmed in a similar way as the rest of the MWRD property and had crops planted and harvested.

The sampling protocol was designed to provide data to address the following issues: How does the application of biosolids affect soil chemistry within the top 12 inches of the surface? Is there short-term and(or) long-term buildup of metals and(or) radioactivity in the top 12 inches of soil caused by the application of biosolids? Is this buildup, if any, within acceptable limits for soil quality as established by Federal and state agencies? To answer these questions, an average elemental composition of the entire field's plow zone is required. A single composite sample made from multiple subsamples taken on a grid pattern provides the "average" composition of soil in a given field at a given time. Spatial variability of an element of interest within a given field cannot be determined by this sampling design. This approach does not allow us to distinguish different geochemical characteristics of multiple soil types within a given field.

Analyzing the individual subsamples will provide an estimation of a field's local variability—a preliminary geochemical map.

A standard soil auger was used to collect samples to a depth of 12 inches according to a systematic grid pattern (figs. 4, 7a, b). Either 30 or 36 subsamples were collected for each of the 20-acre fields during each sampling event. After air drying, disaggregating, sieving to less-than-2 mm, and grinding to less than 150 μm , splits of the subsamples were composited into one sample for chemical analysis. Complete details on site selection, dates of sample collection, sample-collection protocols, analytical methods, and quality-assurance protocols are described by Stevens and others (2003) and Yager and others (2004a, b, c, and d).

Table 1. Field locations, latitude/longitude.

Arapahoe County		
Field	Latitude	Longitude
Lower (Southern)	39.690	-103.870
Middle	39.694	-103.870
Upper (Northern)	39.697	-103.870
Elbert County		
Lower (Southern)	39.541	-103.791
Middle	39.544	-103.791
Upper (Northern)	39.547	-103.791

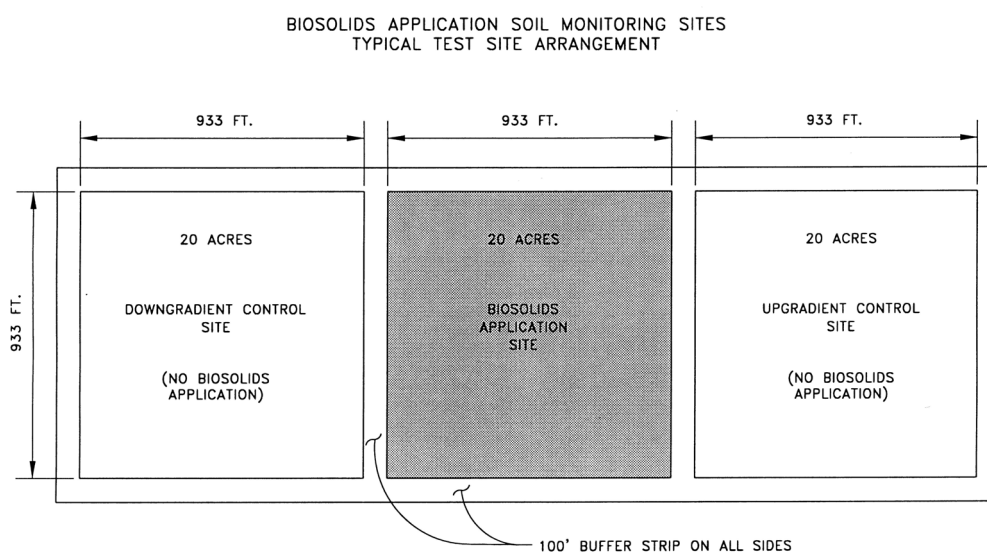


Figure 4. Monitoring fields' measurements and layout.

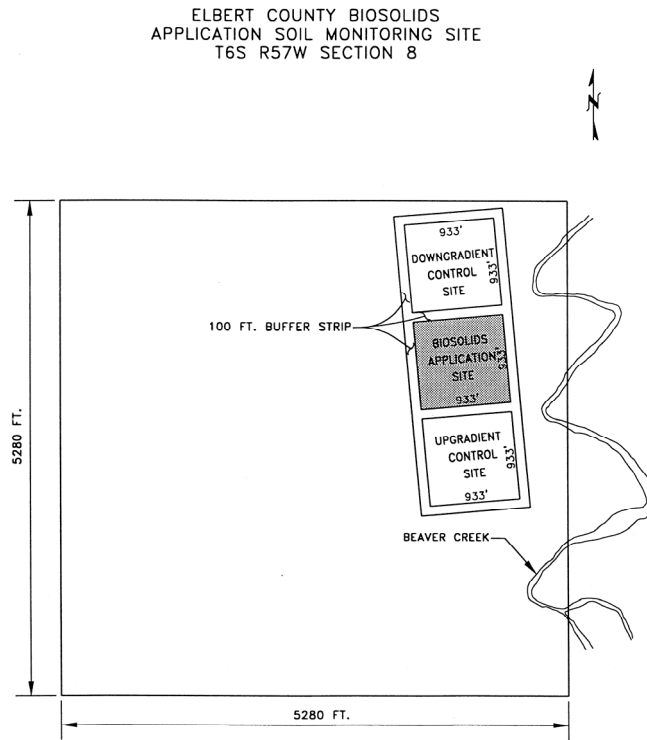


Figure 5. Elbert County, CO, monitoring fields' location.

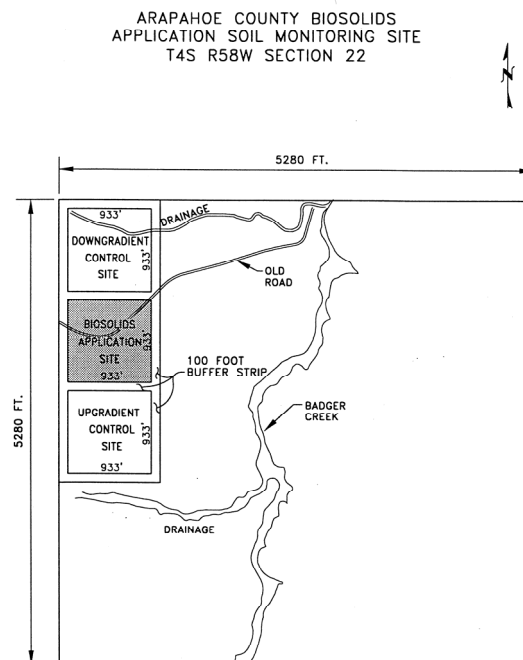


Figure 6. Arapahoe County, CO, monitoring fields' location.



Figure 7. Soils sampling in the field.

Methodology

Sampling Methods

The sampling protocol was designed to determine the average composition of the top 12 inches of soil in each of the six 20-acre fields. In order to address this issue, soil samples were collected with a standard soil auger to a depth of 12 inches according to a systematic grid pattern. On each of the two fields to which biosolids would be applied, 36 subsamples were collected on approximately 133-foot centers. A similar grid was used in sampling the southern “control” field on the Arapahoe County site resulting in 36 subsamples. For the remaining three “control” fields, 30 subsamples were collected at approximately 155-foot centers. The subsamples in each field were composited into one sample for chemical analysis representing the entire 20-acre field. All the subsamples were dried at ambient temperature under forced air in the USGS laboratories in Lakewood, CO.

Analytical Methods

Each of the dried subsamples was disaggregated, sieved to less than 2 mm, and ground to less than 150 μm . Splits of each subsample were taken for archival storage. A 30-gram aliquot of each subsample from each of the six individual fields was taken and then composited for a given 20-acre field to produce six composite samples representing each of the six 20-acre fields. This insures that each of the subsamples is equally represented for the final composite soil samples. These six composite soil samples were analyzed by the methods shown in table 2. For selected fields from each year, the individual subsamples that were used to make the composited samples were also analyzed by the methods given in table 2. Analyzing these individual samples gives information on the local variability of each field’s geochemistry and also is an indicator of how well the composited samples represent the field’s overall composition.

Table 2. Analytical methods used for soil analyses.

Method	Description of Method	Reference
ICP10	Inductively couple plasma - atomic emission spectrometry after a partial digestion	Motooka (1996), Arbogast (1996)
ICP40	Inductively couple plasma - atomic emission spectrometry after a total digestion	Briggs (1996), Taggart (2002)
ICPMS	Inductively coupled plasma - mass spectrometry after a total digestion	Briggs and Meier (1999), Taggart (2002)
HG–AAS (Arsenic)	Hydride generation – atomic absorption spectrometry	Hageman and Welch (1996), Taggart (2002)
HG–AAS (Selenium)	Hydride generation – atomic absorption spectrometry	Hageman and Welch (1996), Taggart (2002)
CV–AAS (Mercury)	Cold vapor – atomic absorption spectrometry	O’Leary and others (1996), Taggart (2002)
Gross Alpha, Total	Radiochemistry	Greenberg (1992)
Gross Beta, Total	Radiochemistry	Greenberg (1992)
Plutonium-238, Total	Radiochemistry	Whittaker and Grothaus (1979), Lyon (1980)
Plutonium-239+240, Total	Radiochemistry	Whittaker and Grothaus (1979), Lyon (1980)

Discussion and Results

The analytical results shown in table 3 represent the prebiosolids application geochemical baseline for each of the six fields sampled. These results point out that the soils sampled in Arapahoe County have somewhat different geochemical characteristics than those sampled in Elbert County. The Elbert County soils show higher concentrations of most of the metals analyzed. This may be related to the higher clay content that we observed while sampling the Elbert County soils. Clay minerals tend to adsorb metal ions from solution, and this process may have led to the slight enrichment of metals in the Elbert County site. It is interesting to note that the arsenic content of soils in both counties is actually higher than the arsenic content of biosolids (Crock and others, 2008a, b). Table 4 lists the analytical results for the 2000 composite samples after one application of biosolids. Table 5 lists the analytical results for the 2002 composite samples after two applications of biosolids. Tables 6, 7, and 8 list the analytical results for the individual subsamples from the Arapahoe County Middle Field for the 1999, 2000, and 2002 samplings, respectively. Also given in tables 6, 7, and 8 are the soil composite values for comparison. Tables 9 through 14 list the analytical results for the individual subsamples from the various Elbert County fields over the three sampling events. The corresponding soil composite values are also given for comparison. Table 15 lists the results for gross alpha and beta and the plutonium isotopes for each of the three years’ composite soil samples for each field. All soil samples were consistently below the reported detection limits for all of the plutonium isotopes. The highly variable gross alpha and beta data are of questionable use. The regulatory limits for these analytes have since been dropped by the State of Colorado.

In order to evaluate the potential effects of biosolids on soils near Deer Trail, Colorado, the natural geochemical variability associated with estimating the average composition of soil in the 20-acre monitoring fields must be ascertained. This natural variability is caused by (1) the heterogeneous nature of the soil and by (2) the uncertainty associated with laboratory chemical analyses.

Soil exhibits two primary types of heterogeneity. The first type is called “constitutional heterogeneity” (Pitard, 1993) and refers to the difference in chemical composition among the particles that make up the soil. The second type is called “distribution heterogeneity” (Pitard, 1993) and refers to the uneven distribution of the soil particles throughout each monitoring field. The variability caused by these types of heterogeneity is generally much larger than the variability caused by laboratory uncertainty, although for some elements, the laboratory variability may exceed the sampling variability (Crock and others, 1992, 1994; Severson and others, 1990; Stewart and others, 1993). In order to state with confidence that the composition of soil in the biosolids-applied field is being affected by biosolids, the change in composition for a given element must exceed the natural variability for that element as determined in the control fields.

The geochemical data from the first soil sampling in 1999, prior to any biosolids application to the monitoring sites, showed a significant difference in the composition of soils collected from the Arapahoe County site in comparison to those collected from the Elbert County site (Stevens and others, 2003). The Elbert County soils generally showed higher concentrations of trace elements than Arapahoe County soils (for example, 14.1 compared to 6.7 ppm As, 19.3 compared to 13.9 ppm Cu, 28 compared to 20 ppm Ni, 27 compared to 20 ppm Pb, and 100 compared to 69 ppm Zn [comparing the 1999 middle fields of each site, ICP-MS data]). This was confirmed in data from the two subsequent sampling events (Yager and others, 2004c), and is likely related to the observed higher clay content of the Elbert County soils, which, in turn, is related to the parent material of the soil. Most of the soils at the Elbert County site belong to the Renohill Series, which developed in material weathered from shale (Larsen and others, 1966). Most of the Arapahoe County site contains soils from the Baca Series, which has a larger component of sandstone in its parent material (Larsen and Brown, 1971). It is well documented in the geochemical literature that shales contain higher concentration of trace elements than sandstones (Rose and others, 1979) and, thus, the Elbert County soils have a higher content of these elements than the Arapahoe County soils.

It is possible to perform simple calculations that will enable us to determine if any measurable impact to the soils should have been expected from two applications of biosolids and also to determine how many applications it would take before we could observe a measurable difference in composition of the soil. These calculations assume that all the applied biosolids remain within the top 12 inches of soil. In other words, it is assumed there is no physical transport by wind or water, or chemical transport beyond the boundaries of the monitoring field or to a depth greater than 12 inches. Of the nine regulated trace elements, copper shows the largest difference in concentration between the biosolids (average copper concentration = 620 mg/kg) and soils in the control fields (16 mg/kg average for Arapahoe County control fields) (table 3). Using the biosolids application rate of 1.14 tons (1,034 kg) per acre used during 2002 for the Arapahoe County site (B. Patterson, MWRD, written communication, February 25, 2004), we may calculate the number of kilograms of copper applied to one of the 20-acre fields as follows:

$$(1) (1,034 \text{ kg biosolids/acre}) \times (20 \text{ acres}) \times 620 \text{ mg copper/kg biosolids} = 1.28 \times 10^7 \text{ mg copper applied to one 20-acre field}$$

We now need to know the total number of kilograms of soil contained in the top 12 inches (30.5 cm) of a 20-acre (284 m x 284 m = 80,656 square meters) field. To calculate this number, we must know the density of the soil. The density was measured in the field by the USGS and was found to be approximately 1.4 grams per cubic centimeter. This value was confirmed by bulk density information for soils of Arapahoe County given on the Web site of the Natural Resources Conservation Service (<http://ssldata.nrcs.usda.gov/querypage.asp>, accessed on July 1, 2004). We can now make the following calculation:

$$(2) (80,656 \text{ m}^2) \times (10,000 \text{ cm}^2/\text{m}^2) \times (30.5 \text{ cm}) \times (1.4 \text{ gm}/\text{cm}^3) \times (1 \text{ kg}/1,000 \text{ gm}) = 3.44 \times 10^7 \text{ kg of soil in the top 12 inches of a 20-acre field}$$

We can now divide the results of calculation (1) by calculation (2) to obtain the concentration of copper in the top 12 inches of soil as a result of applying biosolids at a rate of 1.14 tons/acre.

$$(3) (1.28 \times 10^7 \text{ mg copper}) / (3.44 \times 10^7 \text{ kg soil}) = 0.37 \text{ mg copper/kg soil.}$$

This indicates that one application of biosolids at a rate of 1.14 tons/acre increases the concentration of copper in the top 12 inches of soil by only 0.37 mg/kg. Given that the average copper content of soils on the Arapahoe County site is approximately 16 mg/kg, this is only a 2 percent increase. Such a small increase is beyond our capability of measuring with any degree of confidence. Table 3 shows that the natural variability for copper in soils from the Arapahoe County control fields is plus or minus 5 mg/kg. It would take about 14 applications of biosolids at the above application rate, with an increase of 0.37 mg/kg with each application, to exceed this 5 mg/kg uncertainty. Assuming that the application rate for biosolids remained constant at 1.14 tons/acre and that applications took place every other year, then it would take about 28 years before the copper content increased to the point where the natural variability could begin to be ruled out. For those elements whose concentrations in biosolids are not so drastically different from their concentration in soil, it would take considerably longer before the effects of biosolids application could be measured beyond the natural variability.

Acknowledgments

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Table 3. Analytical results for the 1999 composite soil samples, Dear Trail, CO Study Area.

	ICP10*	ICP40**	ICPMS	ICP40	ICPMS	HG-AAS [#]	ICP10	ICP40	ICPMS
Field No.	Ag, ppm	Ag, ppm	Ag, ppm	Al, %	Al, %	As, ppm	As, ppm	As, ppm	As, ppm
99ELU01C	<0.08	<2	0.14	6.87	9.3	11.5	9	18	12
99ELU02C	<0.08	<2	0.13	6.95	9.2	11.5	9	17	12
99ELU03C	<0.08	<2	0.13	6.91	9.2	10.8	9	13	12
99ELU04C	<0.08	<2	0.13	6.91	9.4	10.9	12	12	12
Mean	<0.08	<2	0.13	6.91	9.3	11.2	10	15	12
Stand. Dev. ^{##}	-- ^{###}	--	--	0.03	0.1	0.4	2	3	--
99ELM01C	<0.08	<2	0.13	6.38	8.2	13.9	11	14	14
99ELM02C	<0.08	<2	0.13	6.21	8.2	14.1	8	16	15
99ELM03C	<0.08	<2	0.13	6.27	8.1	13.9	12	12	14
99ELM04C	<0.08	<2	0.12	6.26	8.2	14.5	12	13	14
Mean	<0.08	<2	0.13	6.28	8.2	14.1	11	14	14
Stand. Dev.	--	--	0.01	0.07	--	0.3	2	2	1
99ELL01C	<0.08	<2	0.15	5.73	7.5	14.5	11	10	14
99ELL02C	<0.08	<2	0.14	5.77	7.6	13.9	10	15	14
99ELL03C	<0.08	<2	0.13	5.75	7.5	13.4	11	14	13
99ELL04C	<0.08	<2	0.14	5.80	7.4	13.8	4	15	13
Mean	<0.08	<2	0.14	5.76	7.5	13.9	9	14	14
Stand. Dev.	--	--	0.01	0.03	0.1	0.5	3	2	1
99ARU01C	<0.08	<2	0.14	5.41	7.2	7.0	6.0	12	7.0
99ARU02C	<0.08	<2	0.14	5.40	7.2	7.3	5.0	<10	7.2
99ARU03C	<0.08	<2	0.14	5.37	7.3	6.8	5.0	<10	7.4
99ARU04C	<0.08	<2	0.13	5.48	7.2	7.1	6.0	<10	7.1
Mean	<0.08	<2	0.14	5.41	7.2	7.1	5.5	12	7.2
Stand. Dev.	--	--	--	0.05	0.0	0.2	0.6	--	0.2
99ARM01C	<0.08	<2	0.14	5.83	7.9	6.7	5.0	<10	7.2
99ARM02C	<0.08	<2	0.14	5.86	7.8	6.5	5.0	14	7.1
99ARM03C	<0.08	<2	0.15	5.91	8.0	6.6	6.0	<10	7.2
99ARM04C	<0.08	<2	0.15	5.84	8.0	6.8	5.0	<10	7.0
Mean	<0.08	<2	0.15	5.86	7.9	6.7	5.3	14	7.1
Stand. Dev.	--	--	0.01	0.04	0.1	0.1	0.5	--	0.1
99ARL01C	<0.08	<2	0.13	5.55	7.4	6.7	5.0	<10	7.0
99ARL02C	<0.08	<2	0.15	5.49	7.4	6.3	5.0	12	6.9
99ARL03C	<0.08	<2	0.14	5.62	7.5	6.1	6.0	<10	7.1
99ARL04C	<0.08	<2	0.13	5.62	7.6	6.7	5.0	10	7.2
Mean	<0.08	<2	0.14	5.57	7.5	6.5	5.3	11	7.1
Stand. Dev.	--	--	0.01	0.06	0.1	0.3	0.5	1	0.1

* - ICP-AES determination after a partial digestion

** - ICP-AES determination after a total, four acid digestion

*** - Cold Vapor - Atomic Absorption Spectrometry

[#] - Hydride Generation - Atomic Absorption Spectrometry^{##} - Standard Deviation^{###} - Not Determined

Table 3. Analytical results for the 1999 composite soil samples, Dear Trail, CO Study Area.—Continued

	ICP10	ICP40	ICPMS	ICP40	ICPMS	ICP40	ICPMS	ICP10	ICP40
Field No.	Au, ppm	Au, ppm	Au, ppm	Ba, ppm	Ba, ppm	Be, ppm	Be, ppm	Bi, ppm	Bi, ppm
99ELU01C	<0.1	<8	< 0.05	626	630	2	2.4	<1	<50
99ELU02C	<0.1	<8	< 0.05	632	620	2	2.6	<1	<50
99ELU03C	<0.1	<8	< 0.05	618	600	2	2.3	<1	<50
99ELU04C	<0.1	<8	< 0.05	640	640	2	2.4	<1	<50
Mean	<0.1	<8	< 0.05	629	623	2	2.4	<1	<50
Stand. Dev. ^{##}	--	--	--	9	17	--	0.1	--	--
99ELM01C	<0.1	<8	< 0.05	698	690	2	2.4	<1	<50
99ELM02C	<0.1	<8	< 0.05	688	690	2	2.6	<1	<50
99ELM03C	<0.1	<8	< 0.05	698	730	2	2.5	<1	<50
99ELM04C	<0.1	<8	< 0.05	711	700	2	2.2	<1	<50
Mean	<0.1	<8	< 0.05	699	703	2	2.4	<1	<50
Stand. Dev.	--	--	--	9	19	--	0.2	--	--
99ELL01C	<0.1	<8	< 0.05	685	690	2	2.6	<1	<50
99ELL02C	<0.1	<8	< 0.05	679	700	2	2.2	<1	<50
99ELL03C	<0.1	<8	< 0.05	683	680	2	2.6	<1	<50
99ELL04C	<0.1	<8	< 0.05	698	680	2	2.1	<1	<50
Mean	<0.1	<8	< 0.05	686	688	2	2.4	<1	<50
Stand. Dev.	--	--	--	8	10	--	0.3	--	--
99ARU01C	<0.1	<8	< 0.05	603	610	2	2.1	<1	<50
99ARU02C	<0.1	<8	< 0.05	599	620	2	1.9	<1	<50
99ARU03C	<0.1	<8	< 0.05	591	620	2	2.0	<1	<50
99ARU04C	<0.1	<8	< 0.05	608	620	2	2.0	<1	<50
Mean	<0.1	<8	< 0.05	600	618	2	2.0	<1	<50
Stand. Dev.	--	--	--	7	5	--	0.1	--	--
99ARM01C	<0.1	<8	< 0.05	671	670	2	2.4	<1	<50
99ARM02C	<0.1	<8	< 0.05	664	680	2	2.4	<1	<50
99ARM03C	<0.1	<8	< 0.05	674	690	2	2.2	<1	<50
99ARM04C	<0.1	<8	< 0.05	667	670	2	2.8	<1	<50
Mean	<0.1	<8	< 0.05	669	678	2	2.5	<1	<50
Stand. Dev.	--	--	--	4	10	--	0.3	--	--
99ARL01C	<0.1	<8	< 0.05	659	660	2	2.4	<1	<50
99ARL02C	<0.1	<8	< 0.05	645	660	2	2.2	<1	<50
99ARL03C	<0.1	<8	< 0.05	670	650	2	2.1	<1	<50
99ARL04C	<0.1	<8	< 0.05	659	660	2	2.0	<1	<50
Mean	<0.1	<8	< 0.05	658	658	2	2.2	<1	<50
Stand. Dev.	--	--	--	10	5	--	0.2	--	--

Table 3. Analytical results for the 1999 composite soil samples, Dear Trail, CO Study Area.—Continued

Field No.	ICPMS Bi, ppm	ICP40 Ca, %	ICPMS Ca, %	ICP10 Cd, ppm	ICP40 Cd, ppm	ICPMS Cd, ppm	ICP40 Ce, ppm	ICPMS Ce, ppm	ICP40 Co, ppm
99ELU01C	0.3	1.94	2.4	0.23	<2	0.2	77	75	11
99ELU02C	0.3	1.96	2.4	0.21	<2	0.2	80	72	12
99ELU03C	0.3	1.95	2.4	0.19	<2	0.2	76	70	12
99ELU04C	0.3	1.96	2.5	0.20	<2	0.2	74	77	11
Mean	0.3	1.95	2.4	0.21	<2	0.2	77	74	12
Stand. Dev. ^{##}	--	0.01	0.1	0.02	--	--	3	3	1
99ELM01C	0.3	2.50	3	0.19	<2	0.2	72	69	11
99ELM02C	0.3	2.45	3	0.22	<2	0.2	77	73	11
99ELM03C	0.3	2.52	3	0.22	<2	0.2	75	72	13
99ELM04C	0.3	2.49	3	0.21	<2	0.2	74	70	12
Mean	0.3	2.49	3	0.21	<2	0.2	75	71	12
Stand. Dev.	--	0.03	--	0.01	--	--	2	2	1
99ELL01C	0	2.45	3.0	0.23	<2	0.2	81	76	11
99ELL02C	0	2.42	3.0	0.24	<2	0.2	73	86	11
99ELL03C	0	2.44	3.0	0.24	<2	0.2	78	73	12
99ELL04C	0	2.48	2.9	0.24	<2	0.2	80	77	11
Mean	0	2.45	3.0	0.24	<2	0.2	78	78	11
Stand. Dev.	--	0.03	--	0.00	--	--	4	6	1
99ARU01C	0.2	2.68	3.3	0.19	<2	0.2	83	78	9
99ARU02C	0.2	2.68	3.3	0.19	<2	0.2	69	76	9
99ARU03C	0.2	2.65	3.3	0.18	<2	0.2	74	75	9
99ARU04C	0.2	2.70	3.3	0.18	<2	0.2	77	80	9
Mean	0.2	2.68	3.3	0.19	<2	0.2	76	77	9
Stand. Dev.	--	0.02	--	0.01	--	--	6	2	--
99ARM01C	0.2	2.90	3.6	0.27	<2	0.3	94	91	9
99ARM02C	0.2	2.91	3.6	0.28	<2	0.3	87	88	9
99ARM03C	0.2	2.92	3.7	0.27	<2	0.3	91	89	10
99ARM04C	0.2	2.90	3.7	0.30	<2	0.3	88	88	10
Mean	0.2	2.91	3.7	0.28	<2	0.3	90	89	10
Stand. Dev.	--	0.01	0.1	0.01	--	--	3	1	1
99ARL01C	0.1	1.76	2.2	0.20	<2	0.2	88	80	8
99ARL02C	0.2	1.78	2.2	0.19	<2	0.2	80	80	9
99ARL03C	0.1	1.77	2.2	0.20	<2	0.2	80	82	9
99ARL04C	0.2	1.78	2.2	0.20	<2	0.2	79	82	9
Mean	0.2	1.77	2.2	0.20	<2	0.2	82	81	9
Stand. Dev.	0.1	0.01	--	--	--	--	4	1	1

Table 3. Analytical results for the 1999 composite soil samples, Dear Trail, CO Study Area.—Continued

Field No.	ICPMS Co, ppm	ICP40 Cr, ppm	ICPMS Cr, ppm	ICPMS Cs, ppm	ICP10 Cu, ppm	ICP40 Cu, ppm	ICPMS Cu, ppm	ICPMS Dy, ppm	ICPMS Er, ppm
99ELU01C	12	42	74	7.0	19.2	22	30	4.3	2.2
99ELU02C	12	78	74	6.8	19.2	22	30	4.3	2.2
99ELU03C	12	51	72	6.7	19.2	21	20	4.2	2.1
99ELU04C	13	47	74	7.1	19.1	23	31	4.5	2.2
Mean	12	55	74	6.9	19.2	22	28	4.3	2.2
Stand. Dev. ^{##}	1	16	1	0.2	0.0	1	5	0.1	0.1
99ELM01C	12	85	65	6.0	19.0	21	20	4.3	2.2
99ELM02C	12	68	64	5.9	19.1	21	20	4.3	2.2
99ELM03C	12	57	64	6.0	19.3	21	30	4.3	2.2
99ELM04C	12	60	62	5.8	19.7	21	20	4.2	2.2
Mean	12	68	64	5.9	19.3	21	23	4.3	2.2
Stand. Dev.	--	13	1	0.1	0.3	--	5	0.0	--
99ELL01C	12	78	56	4.9	16.6	18	20	4.2	2.1
99ELL02C	12	57	55	5.0	16.8	18	20	4.7	2.2
99ELL03C	11	49	54	5.0	16.4	19	20	4.2	2.1
99ELL04C	11	43	54	5.0	17.0	18	20	4.4	2.2
Mean	12	57	55	5.0	16.7	18	20	4.4	2.2
Stand. Dev.	1	15	1	0.0	0.3	1	--	0.2	0.1
99ARU01C	8.6	42	48	4.2	11.5	33	20	4.2	2.0
99ARU02C	8.5	46	47	4.2	11.1	16	20	4.0	2.0
99ARU03C	8.6	44	48	4.2	11.5	14	20	4.0	2.1
99ARU04C	8.6	53	48	4.1	11.6	13	20	4.2	2.1
Mean	8.6	46	48	4.2	11.4	19	20	4.1	2.1
Stand. Dev.	0.0	5	1	--	0.2	9	--	0.1	0.1
99ARM01C	9.7	39	52	4.3	13.6	17	20	4.8	2.3
99ARM02C	9.5	48	50	4.3	13.9	17	20	4.7	2.3
99ARM03C	9.6	73	52	4.4	13.8	18	20	4.6	2.2
99ARM04C	9.4	40	52	4.3	14.2	17	20	4.6	2.4
Mean	9.6	50	52	4.3	13.9	17	20	4.7	2.3
Stand. Dev.	0.1	16	1	--	0.3	1	--	0.1	0.1
99ARL01C	8.7	31	47	4.0	11.1	14	20	4.2	2
99ARL02C	8.8	63	48	4.0	11.3	17	20	4.2	2
99ARL03C	8.6	45	46	3.9	11.5	15	20	4.2	2
99ARL04C	8.7	49	48	4.0	11.4	14	20	4.2	2
Mean	8.7	47	47	4.0	11.3	15	20	4.2	2
Stand. Dev.	0.1	13	1	0.1	0.2	1	--	--	--

Table 3. Analytical results for the 1999 composite soil samples, Dear Trail, CO Study Area.—Continued

	ICP40	ICPMS	ICP40	ICPMS	ICP40	ICPMS	ICPMS	ICPMS	CV-AAS***
Field No.	Eu, ppm	Eu, ppm	Fe, %	Fe, %	Ga, ppm	Ga, ppm	Gd, ppm	Ge, ppm	Hg, ppm
99ELU01C	<2	1.2	3.22	3.9	7	17	5.4	1.4	<0.02
99ELU02C	<2	1.1	3.22	3.8	15	17	5.2	1.4	0.03
99ELU03C	<2	1.1	3.19	3.8	12	16	5.2	1.4	0.03
99ELU04C	<2	1.2	3.19	3.9	12	18	5.5	1.4	0.03
Mean	<2	73.5	3.21	3.9	12	17	5.3	1.4	0.03
Stand. Dev. ^{##}	--	0.1	0.02	0.1	3	1	0.1	--	--
99ELM01C	<2	1.1	3.62	4.3	11	15	5.1	1.2	0.03
99ELM02C	2	1.1	3.55	4.3	11	15	5.2	1.4	0.04
99ELM03C	<2	1.1	3.57	4.3	10	15	5.3	1.4	0.04
99ELM04C	<2	1.1	3.56	4.3	7	15	5.1	1.4	0.04
Mean	2	1.1	3.58	4.3	10	15	5.2	1.4	0.04
Stand. Dev.	--	--	0.03	--	2	--	0.1	0.1	--
99ELL01C	<2	1.1	3.19	3.9	10	14	5.4	1.3	0.03
99ELL02C	<2	1.2	3.14	3.9	11	14	6.5	1.4	0.03
99ELL03C	<2	1.1	3.2	3.8	11	14	5.2	1.3	0.03
99ELL04C	<2	1.1	3.25	3.8	11	14	5.4	1.2	0.03
Mean	<2	1.1	3.20	3.9	11	14	5.6	1.3	0.03
Stand. Dev.	--	0.1	0.05	0.1	1	--	0.6	0.1	--
99ARU01C	<2	1.1	2.20	2.6	11	12	5.3	1.2	0.02
99ARU02C	<2	1.1	2.21	2.6	14	12	5.1	1.2	0.02
99ARU03C	<2	1.0	2.18	2.7	13	13	5.1	1.2	<0.02
99ARU04C	<2	1.0	2.22	2.6	13	12	5.1	1.1	<0.02
Mean	<2	1.1	2.20	2.6	13	12	5.2	1.2	0.02
Stand. Dev.	--	0.1	0.02	0.1	1	1	0.1	0.1	--
99ARM01C	<2	1.2	2.32	2.8	15	14	6.0	1.2	<0.02
99ARM02C	<2	1.2	2.33	2.8	15	14	5.9	1.2	<0.02
99ARM03C	<2	1.1	2.33	2.8	16	14	6.0	1.2	<0.02
99ARM04C	<2	1.2	2.31	2.8	15	14	5.9	1.2	<0.02
Mean	<2	1.2	2.32	2.8	15	14	6.0	1.2	<0.02
Stand. Dev.	--	0.0	0.01	--	1	--	0.1	--	--
99ARL01C	<2	1.1	2.16	2.6	14	13	5.4	1.3	<0.02
99ARL02C	<2	1.1	2.19	2.6	14	13	5.3	1.2	<0.02
99ARL03C	<2	1.0	2.18	2.6	14	13	5.4	1.2	<0.02
99ARL04C	<2	1.1	2.19	2.7	14	13	5.4	1.2	<0.02
Mean	<2	1.1	2.18	2.6	14	13	5.4	1.2	<0.02
Stand. Dev.	--	0.0	0.01	0.1	--	--	0.1	0.0	--

Table 3. Analytical results for the 1999 composite soil samples, Dear Trail, CO Study Area.—Continued

Field No.	ICP40 Ho, ppm	ICPMS Ho, ppm	ICPMS In, ppm	ICP40 K, %	ICPMS K, %	ICP40 La, ppm	ICPMS La, ppm	ICP40 Li, ppm	ICPMS Li, ppm
99ELU01C	<4	0.71	< 0.1	2.31	2.9	40	42	42	49
99ELU02C	<4	0.69	< 0.1	2.34	2.8	40	40	43	50
99ELU03C	<4	0.67	< 0.1	2.32	2.8	40	38	43	48
99ELU04C	<4	0.71	< 0.1	2.31	2.8	40	42	43	50
Mean	<4	0.70	< 0.1	2.32	2.8	40	41	43	49
Stand. Dev. ^{##}	--	0.02	--	0.01	--	--	2	1	1
99ELM01C	<4	0.69	< 0.1	2.30	2.7	37	39	38	42
99ELM02C	<4	0.70	< 0.1	2.23	2.8	39	40	37	43
99ELM03C	<4	0.71	< 0.1	2.12	2.7	39	40	31	41
99ELM04C	<4	0.70	< 0.1	2.13	2.7	40	40	32	41
Mean	<4	0.70	< 0.1	2.20	2.7	39	40	35	42
Stand. Dev.	--	0.01	--	0.09	0.0	1	1	4	1
99ELL01C	<4	0.68	< 0.1	2.07	2.7	41	42	26	34
99ELL02C	<4	0.72	< 0.1	2.07	2.7	40	47	26	34
99ELL03C	<4	0.68	< 0.1	2.07	2.6	41	41	26	34
99ELL04C	<4	0.69	< 0.1	2.08	2.6	41	43	26	34
Mean	<4	0.69	< 0.1	2.07	2.7	41	43	26	34
Stand. Dev.	--	0.02	--	--	0.1	1	3	--	--
99ARU01C	<4	0.67	< 0.1	1.95	2.5	43	44	22	30
99ARU02C	<4	0.66	< 0.1	1.94	2.5	39	43	22	29
99ARU03C	<4	0.66	< 0.1	1.93	2.5	41	42	21	29
99ARU04C	<4	0.66	< 0.1	1.98	2.5	41	43	22	29
Mean	<4	0.66	< 0.1	1.95	2.5	41	43	22	29
Stand. Dev.	--	0.01	--	0.02	--	2	1	1	1
99ARM01C	<4	0.75	< 0.1	2.07	2.7	49	51	24	31
99ARM02C	<4	0.75	< 0.1	2.07	2.6	47	49	23	31
99ARM03C	<4	0.74	< 0.1	2.07	2.7	49	50	23	31
99ARM04C	<4	0.73	< 0.1	2.04	2.7	48	49	23	31
Mean	<4	0.74	< 0.1	2.06	2.7	48	50	23	31
Stand. Dev.	--	0.01	--	0.01	0.1	1	1	1	--
99ARL01C	<4	0.65	< 0.1	2.01	2.6	47	45	20	28
99ARL02C	<4	0.65	< 0.1	1.99	2.6	42	44	19	29
99ARL03C	<4	0.66	< 0.1	2.04	2.7	44	46	20	28
99ARL04C	<4	0.65	< 0.1	2.04	2.7	43	45	20	28
Mean	<4	0.65	< 0.1	2.02	2.7	44	45	20	28
Stand. Dev.	--	0.01	--	0.02	0.1	2	1	1	1

Table 3. Analytical results for the 1999 composite soil samples, Dear Trail, CO Study Area.—Continued

Field No.	ICP40 Mg, %	ICPMS Mg, %	ICP40 Mn, ppm	ICPMS Mn, ppm	ICP10 Mo, ppm	ICP40 Mo, ppm	ICPMS Mo, ppm	ICP40 Na, %	ICPMS Na, %
99ELU01C	1.21	1.7	263	360	1.2	<2	1.3	0.64	0.81
99ELU02C	1.23	1.7	273	350	1.1	<2	1.4	0.66	0.80
99ELU03C	1.20	1.7	262	340	1.1	<2	1.3	0.65	0.79
99ELU04C	1.23	1.7	265	350	1.4	<2	1.4	0.64	0.81
Mean	1.22	1.7	266	350	1.2	<2	1.4	0.65	0.80
Stand. Dev. ^{##}	0.02	--	5	8	0.1	--	0.1	0.01	0.01
99ELM01C	1.05	1.4	345	440	1.5	<2	1.6	0.64	0.77
99ELM02C	1.02	1.4	341	430	1.1	<2	1.6	0.62	0.78
99ELM03C	1.04	1.4	346	430	1.5	3	1.6	0.58	0.78
99ELM04C	1.03	1.4	339	450	1.6	3	1.6	0.59	0.78
Mean	1.04	1.4	343	438	1.4	3	1.6	0.61	0.78
Stand. Dev.	0.01	--	3	10	0.2	--	--	0.03	--
99ELL01C	0.79	1.1	369	480	1.3	<2	1.4	0.62	0.83
99ELL02C	0.79	1.1	362	470	1.3	<2	1.4	0.62	0.84
99ELL03C	0.78	1.1	358	460	1.1	<2	1.3	0.63	0.82
99ELL04C	0.80	1.1	379	450	1.2	2	1.3	0.63	0.80
Mean	0.79	1.1	367	465	1.2	2	1.4	0.62	0.82
Stand. Dev.	0.01	--	9	13	0.1	--	0.1	0.01	0.02
99ARU01C	0.75	1.10	286	380	0.5	<2	0.7	0.66	0.90
99ARU02C	0.75	1.10	292	370	0.5	<2	0.7	0.66	0.90
99ARU03C	0.73	1.10	282	370	0.6	<2	0.7	0.65	0.90
99ARU04C	0.75	1.10	286	380	0.7	<2	0.6	0.66	0.89
Mean	0.75	1.10	287	375	0.6	<2	0.7	0.66	0.90
Stand. Dev.	0.01	--	4	6	0.1	--	0.1	0.01	--
99ARM01C	0.81	1.20	339	440	0.6	2	0.8	0.73	1.00
99ARM02C	0.80	1.20	333	440	0.6	<2	0.7	0.73	0.99
99ARM03C	0.81	1.20	343	440	0.7	<2	0.8	0.73	1.00
99ARM04C	0.80	1.20	340	430	0.6	<2	0.8	0.71	1.00
Mean	0.81	1.20	339	438	0.6	2	0.8	0.73	1.00
Stand. Dev.	--	--	4	5	--	--	0.1	0.01	--
99ARL01C	0.64	0.94	302	390	0.6	<2	0.7	0.66	0.91
99ARL02C	0.64	0.94	301	400	0.5	<2	0.7	0.65	0.91
99ARL03C	0.65	0.94	307	390	0.5	<2	0.7	0.66	0.91
99ARL04C	0.64	0.94	304	400	0.6	<2	0.7	0.65	0.92
Mean	0.65	0.94	304	395	0.6	<2	0.7	0.65	0.91
Stand. Dev.	0.01	--	3	6	0.1	--	--	0.01	0.01

Table 3. Analytical results for the 1999 composite soil samples, Dear Trail, CO Study Area.—Continued

	ICP40	ICPMS	ICP40	ICPMS	ICP40	ICPMS	ICP40	ICPMS	ICP10
Field No.	Nb, ppm	Nb, ppm	Nd, ppm	Nd, ppm	Ni, ppm	Ni, ppm	P, %	P, %	Pb, ppm
99ELU01C	21	14	33	35	22	30	0.080	0.1	21
99ELU02C	17	13	31	33	22	29	0.075	0.1	21
99ELU03C	15	14	37	32	22	29	0.075	0.1	22
99ELU04C	15	14	33	35	23	30	0.080	0.1	22
Mean	17	14	34	34	22	30	0.078	0.1	22
Stand. Dev. ^{##}	3	1	3	2	1	1	--	--	1
99ELM01C	16	12	33	32	21	28	0.08	0.1	21
99ELM02C	16	12	31	33	21	28	0.08	0.1	21
99ELM03C	12	14	31	33	21	28	0.08	0.1	22
99ELM04C	12	13	30	33	21	27	0.08	0.1	22
Mean	14	13	31	33	21	28	0.08	0.1	22
Stand. Dev.	2	1	1	1	--	1	--	--	1
99ELL01C	11	13	31	35	18	24	0.07	0.10	20
99ELL02C	15	14	34	40	18	24	0.07	0.10	20
99ELL03C	9	14	26	34	18	24	0.07	0.09	19
99ELL04C	9	14	27	35	19	23	0.07	0.09	20
Mean	11	14	30	36	18	24	0.07	0.10	20
Stand. Dev.	3	1	4	3	1	1	--	0.01	1
99ARU01C	10	15	35	35	13	18	0.06	0.08	13
99ARU02C	12	14	19	35	13	18	0.06	0.08	12
99ARU03C	10	14	33	34	13	18	0.06	0.08	13
99ARU04C	11	13	39	34	14	18	0.06	0.08	12
Mean	11	14	32	35	13	18	0.06	0.08	13
Stand. Dev.	1	1	9	1	1	--	--	--	1
99ARM01C	13	14	47	42	15	20	0.07	0.09	13
99ARM02C	13	15	44	40	15	20	0.06	0.09	13
99ARM03C	13	16	38	40	15	20	0.07	0.09	13
99ARM04C	14	16	36	40	15	20	0.06	0.09	14
Mean	13	15	41	41	15	20	0.06	0.09	13
Stand. Dev.	1	1	5	1	--	--	--	--	1
99ARL01C	10	14	42	36	14	18	0.06	0.07	12
99ARL02C	13	14	29	37	14	18	0.06	0.08	12
99ARL03C	12	14	31	38	15	18	0.06	0.08	12
99ARL04C	10	13	30	37	14	19	0.06	0.08	12
Mean	11	14	33	37	14	18	0.06	0.08	12
Stand. Dev.	2	1	6	1	1	1	--	--	--

Table 3. Analytical results for the 1999 composite soil samples, Dear Trail, CO Study Area.—Continued

Field No.	ICP40 Pb, ppm	ICPMS Pb, ppm	ICPMS Pr, ppm	ICPMS Rb, ppm	ICPMS Re, ppm	ICP10 Sb, ppm	ICPMS Sb, ppm	ICP40 Sc, ppm	ICPMS Sc, ppm
99ELU01C	27	26	8.6	120	< 0.05	<1	1.0	11	12
99ELU02C	27	26	8.1	110	< 0.05	<1	1.0	11	12
99ELU03C	25	25	7.8	110	< 0.05	<1	1.0	11	12
99ELU04C	25	26	8.6	120	< 0.05	<1	1.1	11	12
Mean	26	26	8.3	115	< 0.05	<1	1.0	11	12
Stand. Dev. ^{##}	1	1	0.4	6	--	--	0.1	--	--
99ELM01C	31	27	7.80	110	< 0.05	<1	1.2	10	11
99ELM02C	57	27	8.10	110	< 0.05	<1	1.1	10	11
99ELM03C	27	27	8.10	110	< 0.05	<1	1.2	10	11
99ELM04C	27	26	7.90	110	< 0.05	<1	1.2	10	11
Mean	36	27	7.98	110	< 0.05	<1	1.2	10	11
Stand. Dev.	14	1	0.15	--	--	--	--	--	--
99ELL01C	25	25	8.6	100	< 0.05	<1	1	8	9.5
99ELL02C	22	26	9.7	100	< 0.05	<1	1	8	9.6
99ELL03C	23	25	8.3	100	< 0.05	<1	1	8	9.6
99ELL04C	25	25	8.7	100	< 0.05	<1	1	9	9.3
Mean	24	25	8.8	100	< 0.05	<1	1	8	9.5
Stand. Dev.	2	1	0.6	--	--	--	--	1	0.1
99ARU01C	17	18	8.7	91	< 0.05	<1	0.7	7	8.7
99ARU02C	17	18	8.5	92	< 0.05	<1	0.8	7	8.6
99ARU03C	17	19	8.4	91	< 0.05	<1	0.7	7	8.7
99ARU04C	17	18	8.4	90	< 0.05	<1	0.7	8	8.7
Mean	17	18	8.5	91	< 0.05	<1	0.7	7	8.7
Stand. Dev.	--	1	0.1	1	--	--	--	1	0.0
99ARM01C	22	20	10.0	97	< 0.05	<1	0.7	8	9.8
99ARM02C	17	20	9.8	97	< 0.05	<1	0.8	8	9.6
99ARM03C	26	20	10.0	96	< 0.05	<1	0.8	8	9.6
99ARM04C	19	20	9.9	98	< 0.05	<1	0.7	8	9.6
Mean	21	20	9.9	97	< 0.05	<1	0.8	8	9.7
Stand. Dev.	4	--	0.1	1	--	--	0.1	--	0.1
99ARL01C	21	19	9.0	94	< 0.05	<1	0.7	8	8.8
99ARL02C	17	19	8.9	95	< 0.05	<1	0.7	8	8.8
99ARL03C	20	19	9.2	94	< 0.05	1	0.7	8	8.8
99ARL04C	18	19	9.2	94	< 0.05	<1	0.7	8	8.8
Mean	19	19	9.1	94	< 0.05	1.00	0.7	8	8.8
Stand. Dev.	2	--	0.2	1	--	--	--	--	--

Table 3. Analytical results for the 1999 composite soil samples, Dear Trail, CO Study Area.—Continued

Field No.	HG-AAS Se, ppm	ICPMS Se, ppm	ICPMS Sm, ppm	ICP40 Sn, ppm	ICPMS Sn, ppm	ICP40 Sr, ppm	ICPMS Sr, ppm	ICP40 Ta, ppm	ICPMS Tb, ppm
99ELU01C	0.9	< 1	6.2	<50	3	145	150	<40	0.70
99ELU02C	0.9	< 1	5.9	<50	2	148	140	<40	0.68
99ELU03C	0.8	< 1	5.6	<50	2	146	140	<40	0.65
99ELU04C	0.9	< 1	6.0	<50	2	147	150	<40	0.70
Mean	0.9	< 1	5.9	<50	2	147	145	<40	0.68
Stand. Dev. ^{##}	0.1	--	0.2	--	1	1	6	--	0.02
99ELM01C	0.9	< 1	5.5	<50	2	141	140	<40	0.67
99ELM02C	0.9	< 1	5.8	<50	2	139	140	<40	0.66
99ELM03C	1.0	< 1	5.7	<50	2	136	140	<40	0.68
99ELM04C	1.0	< 1	5.7	<50	2	136	140	<40	0.66
Mean	1.0	< 1	5.7	<50	2	138	140	<40	0.67
Stand. Dev.	0.1	--	0.1	--	--	2	--	--	0.01
99ELL01C	0.8	< 1	5.9	<50	2	152	170	<40	0.67
99ELL02C	0.8	< 1	7.2	<50	2	154	170	<40	0.78
99ELL03C	0.8	< 1	5.8	<50	2	152	160	<40	0.67
99ELL04C	0.8	< 1	6.2	<50	2	153	160	<40	0.68
Mean	0.8	<1	6.3	<50	2	153	165	<40	0.70
Stand. Dev.	--	--	0.6	--	--	1	6	--	0.05
99ARU01C	0.4	< 1	6.0	<50	2	154	160	<40	0.66
99ARU02C	0.4	< 1	5.7	<50	2	152	170	<40	0.64
99ARU03C	0.4	< 1	5.6	<50	2	153	160	<40	0.64
99ARU04C	0.4	< 1	5.8	<50	2	156	160	<40	0.65
Mean	0.4	< 1	5.8	<50	2	154	163	<40	0.65
Stand. Dev.	--	--	0.2	--	--	2	5	--	0.01
99ARM01C	0.4	< 1	7.0	<50	2	162	180	<40	0.75
99ARM02C	0.4	< 1	6.7	<50	2	163	180	<40	0.74
99ARM03C	0.4	< 1	6.8	<50	2	164	180	<40	0.74
99ARM04C	0.3	< 1	6.7	<50	2	162	180	<40	0.73
Mean	0.4	< 1	6.8	<50	2	163	180	<40	0.74
Stand. Dev.	--	--	0.1	--	--	1	--	--	0.01
99ARL01C	0.3	< 1	6.1	<50	2	139	140	<40	0.67
99ARL02C	0.3	< 1	6.0	<50	2	137	140	<40	0.66
99ARL03C	0.3	< 1	6.4	<50	2	141	140	<40	0.66
99ARL04C	0.3	< 1	6.2	<50	2	140	140	<40	0.68
Mean	0.3	< 1	6.2	<50	2	139	140	<40	0.67
Stand. Dev.	--	--	0.2	--	--	2	--	--	0.01

Table 3. Analytical results for the 1999 composite soil samples, Dear Trail, CO Study Area.—Continued

Field No.	ICPMS Te, ppm	ICP40 Th, ppm	ICPMS Th, ppm	ICP40 Ti, %	ICPMS Ti, %	ICP-MS Tl, ppm	ICP-MS Tm, ppm	ICP40 U, ppm	ICP-MS U, ppm
99ELU01C	< 0.1	14	12	0.34	0.4	0.8	0.3	<100	3.1
99ELU02C	< 0.1	13	12	0.36	0.4	0.8	0.3	<100	3.0
99ELU03C	< 0.1	13	12	0.34	0.4	0.7	0.3	<100	3.0
99ELU04C	< 0.1	15	12	0.35	0.4	0.8	0.3	<100	3.1
Mean	< 0.1	14	12	0.34	0.4	0.8	0.3	<100	3.1
Stand. Dev. ^{##}	--	1	--	0.01	--	0.1	0.0	--	0.1
99ELM01C	< 0.1	11	12	0.32	0.4	0.7	0.30	<100	3.4
99ELM02C	< 0.1	13	12	0.33	0.4	0.7	0.31	<100	3.4
99ELM03C	< 0.1	15	12	0.31	0.4	0.7	0.31	<100	3.4
99ELM04C	< 0.1	15	11	0.31	0.4	0.7	0.30	<100	3.4
Mean	< 0.1	14	12	0.32	0.4	0.7	0.31	<100	3.4
Stand. Dev.	--	2	1	0.01	--	--	0.01	--	--
99ELL01C	< 0.1	16	12	0.30	0.3	0.7	0.30	<100	3.2
99ELL02C	< 0.1	16	15	0.30	0.3	0.7	0.31	<100	3.3
99ELL03C	< 0.1	18	12	0.31	0.3	0.7	0.30	<100	3.2
99ELL04C	< 0.1	16	13	0.29	0.3	0.7	0.30	<100	3.2
Mean	< 0.1	17	13	0.30	0.3	0.7	0.30	<100	3.2
Stand. Dev.	--	1	1	0.01	--	--	--	--	0.0
99ARU01C	< 0.1	16	12	0.31	0.4	0.6	0.28	<100	3.0
99ARU02C	< 0.1	13	12	0.31	0.4	0.6	0.28	<100	3.0
99ARU03C	< 0.1	11	12	0.31	0.4	0.6	0.29	<100	2.9
99ARU04C	< 0.1	15	12	0.31	0.4	0.6	0.3	<100	2.9
Mean	< 0.1	14	12	0.31	0.4	0.6	0.29	<100	3.0
Stand. Dev.	--	2	--	--	--	--	0.01	--	0.1
99ARM01C	< 0.1	21	15	0.33	0.4	0.7	0.33	<100	3.3
99ARM02C	< 0.1	19	14	0.33	0.4	0.7	0.33	<100	3.3
99ARM03C	< 0.1	20	14	0.33	0.4	0.7	0.31	<100	3.1
99ARM04C	< 0.1	18	14	0.31	0.4	0.7	0.32	<100	3.1
Mean	< 0.1	20	14	0.33	0.4	0.7	0.32	<100	3.2
Stand. Dev.	--	1	1	0.01	--	--	0.01	--	0.1
99ARL01C	< 0.1	18	13	0.30	0.4	0.7	0.29	<100	2.8
99ARL02C	< 0.1	15	12	0.31	0.4	0.7	0.28	<100	2.7
99ARL03C	< 0.1	16	14	0.30	0.3	0.7	0.28	<100	2.7
99ARL04C	< 0.1	15	13	0.31	0.4	0.7	0.28	<100	2.8
Mean	< 0.1	16	13	0.31	0.4	0.7	0.28	<100	2.8
Stand. Dev.	--	1	1	0.01	0.1	--	--	--	0.1

Table 3. Analytical results for the 1999 composite soil samples, Dear Trail, CO Study Area.—Continued

Field No.	ICP40 V, ppm	ICP-MS V, ppm	ICP-MS W, ppm	ICP40 Y, ppm	ICP-MS Y, ppm	ICP40 Yb, ppm	ICP-MS Yb, ppm	ICP10 Zn, ppm	ICP40 Zn, ppm
99ELU01C	118	130	1.3	20	31	3	2.1	77.0	92
99ELU02C	119	130	1.3	21	31	3	2.0	77.3	88
99ELU03C	117	120	1.3	20	30	3	2.0	77.5	87
99ELU04C	119	130	1.3	21	32	3	2.0	77.5	91
Mean	118	128	1.3	21	31	3	2.0	77.3	90
Stand. Dev. ^{##}	1	5	--	1	1	--	0.1	0.2	2.38
99ELM01C	110	120	1.1	20	31	3	2.0	77.7	88
99ELM02C	107	120	1.1	20	31	3	2.0	78.2	98
99ELM03C	110	120	1.2	20	32	3	2.1	77.2	89
99ELM04C	109	120	1.2	20	31	3	2.1	76.4	87
Mean	109	120	1.2	20	31	3	2.1	77.4	91
Stand. Dev.	1	--	0.1	--	1	--	0.1	0.8	5
99ELL01C	92	100	1	20	31	3	2	69.5	77
99ELL02C	92	100	1	20	32	2	2	71.4	78
99ELL03C	92	99	1	20	30	2	2	68.8	78
99ELL04C	94	96	1	20	32	2	2	73.7	79
Mean	93	99	1	20	31	2	2	70.9	78
Stand. Dev.	1	2	--	--	1	1	--	2.2	1
99ARU01C	77	83	1.0	19	29	2	2	49.0	67
99ARU02C	76	82	1.0	18	29	2	2	48.2	59
99ARU03C	74	83	1.1	18	29	2	2	50.6	56
99ARU04C	76	82	1.1	18	30	2	2	49.4	57
Mean	76	83	1.1	18	29	2	2	49.3	60
Stand. Dev.	1	1	0.1	1	1	--	--	1.0	5
99ARM01C	82	90	1.0	21	33	2	2	52.7	63
99ARM02C	80	89	1.1	20	32	2	2	53.0	61
99ARM03C	82	90	1.1	21	32	2	2	52.2	67
99ARM04C	82	89	1.1	20	33	2	2	54.4	61
Mean	82	90	1.1	21	33	2	2	53.1	63
Stand. Dev.	1	1	0.0	1	1	--	--	0.9	3
99ARL01C	76	82	0.9	19	29	2	2	46.2	58
99ARL02C	75	83	0.9	19	29	2	2	46.1	58
99ARL03C	76	83	1.0	19	29	2	2	46.4	57
99ARL04C	76	84	1.0	19	29	2	2	47.8	58
Mean	76	83	1.0	19	29	2	2	46.6	58
Stand. Dev.	1	1	0.1	--	--	--	--	0.8	58

Table 3. Analytical results for the 1999 composite soil samples, Dear Trail, CO Study Area.—Continued

Field No.	ICP-MS
	Zn, ppm
99ELU01C	100
99ELU02C	100
99ELU03C	100
99ELU04C	110
Mean	103
Stand. Dev. ^{##}	5.00
99ELM01C	100
99ELM02C	100
99ELM03C	100
99ELM04C	100
Mean	100
Stand. Dev.	--
99ELL01C	92
99ELL02C	91
99ELL03C	90
99ELL04C	90
Mean	91
Stand. Dev.	1
99ARU01C	65
99ARU02C	64
99ARU03C	64
99ARU04C	65
Mean	65
Stand. Dev.	1
99ARM01C	70
99ARM02C	69
99ARM03C	69
99ARM04C	69
Mean	69
Stand. Dev.	1
99ARL01C	66
99ARL02C	66
99ARL03C	66
99ARL04C	66
Mean	66
Stand. Dev.	--

Table 4. Analytical results for the 2000 composite soil samples, Deer Trail, CO Study Area.

Field No.	ICP40* Ag, ppm	ICPMS** Ag, ppm	ICP40 Al, %	ICPMS Al, %	HG-AAS# As, ppm	ICP40 As, ppm	ICPMS As, ppm	ICP40 Au, ppm	ICPMS Au, ppm
00ELLC1	<2	0.14	5.76	6.8	16.7	16	14	<8	< 0.05
00ELLC2	<2	0.13	5.14	6.6	17.8	15	14	<8	< 0.05
00ELLC3	<2	0.14	5.35	6.9	17.4	16	15	<8	< 0.05
00ELLC4	<2	0.13	5.57	6.4	16.7	14	14	<8	< 0.05
Mean	<2	0.14	5.45	6.7	17.2	15	14	<8	<0.05
Stand. Dev.***	--###	0.01	0.27	0.2	0.5	1	1	--	--
00ELMC1	<2	0.16	6.13	7.0	17.6	13	15	<8	< 0.05
00ELMC2	<2	0.21	6.40	6.9	17.2	13	14	<8	< 0.05
00ELMC3	<2	0.22	6.36	7.3	16.3	16	15	<8	< 0.05
00ELMC4	<2	0.25	6.29	7.4	15.2	13	15	<8	< 0.05
Mean	<2	0.21	6.29	7.2	16.6	14	15	<8	<0.05
Stand. Dev.	--	0.04	0.12	0.2	1.1	2	1	--	--
00ELUC1	<2	0.22	7.32	8.4	12.9	14	11	<8	< 0.05
00ELUC2	<2	0.19	7.28	8.4	11.6	13	12	<8	< 0.05
00ELUC3	<2	0.17	7.28	8.5	12.8	14	12	<8	< 0.05
00ELUC4	<2	0.15	7.19	8.5	12.5	12	12	<8	< 0.05
Mean	<2	0.18	7.27	8.5	12.5	13	12	<8	<0.05
Stand. Dev.	--	0.03	0.05	0.1	0.6	1	1	--	--
00ARLC1	<2	0.15	5.62	6.9	7.8	13	7.1	<8	< 0.05
00ARLC2	<2	0.14	5.60	6.8	7.7	<10	6.6	<8	< 0.05
00ARLC3	<2	0.14	5.68	7.0	7.7	<10	7.1	<8	< 0.05
00ARLC4	<2	0.14	5.86	7.2	7.6	<10	6.8	<8	< 0.05
Mean	<2	0.14	5.69	7.0	7.7	13	6.9	<8	<0.05
Stand. Dev.	--	--	0.12	0.2	0.1	--	0.2	--	--
00ARMC1	<2	0.15	5.85	7.3	7.7	<10	6.9	<8	< 0.05
00ARMC2	<2	0.16	6.09	7.4	8.2	12	6.8	<8	< 0.05
00ARMC3	<2	0.17	6.04	6.6	8.2	<10	5.4	<8	0.20
00ARMC4	<2	0.18	5.81	6.9	8.2	10	6.3	<8	0.08
Mean	<2	0.17	5.94	7.1	8.1	11	6.4	<8	0.14
Stand. Dev.	--	0.01	0.14	0.4	0.3	1	0.7	--	0.08
00ARUC1	<2	0.17	5.50	6.6	8.1	11	7.2	<8	< 0.05
00ARUC2	<2	0.15	5.62	6.7	7.6	10	7.5	<8	< 0.05
00ARUC3	<2	0.14	5.47	6.7	8.7	<10	7.6	<8	< 0.05
00ARUC4	<2	0.15	5.55	6.8	7.8	11	7.1	<8	< 0.05
Mean	<2	0.15	5.53	6.7	8.1	11	7.4	<8	< 0.05
Stand. Dev.	--	0.01	0.06	0.1	0.5	1	0.2	--	--

* - ICP-AES determination after a total, four-acid digestion

** - ICP-MS determination after a total, four-acid digestion

*** - Cold Vapor – Atomic Absorption Spectrometry

- Hydride Generation – Atomic Absorption Spectrometry

- Standard Deviation

- Not Determined

Table 4. Analytical results for the 2000 composite soil samples, Deer Trail, CO Study Area.—Continued

Field No.	ICP40 Ba, ppm	ICPMS Ba, ppm	ICP40 Be, ppm	ICPMS Be, ppm	ICP40 Bi, ppm	ICPMS Bi, ppm	ICP40 Ca, %	ICPMS Ca, %	ICP40 Cd, ppm
00ELLC1	670	680	1	1.9	<50	0.2	2.35	2.9	<2
00ELLC2	580	680	1	2.4	<50	0.2	2.15	3.0	<2
00ELLC3	596	700	1	2.2	<50	0.2	2.26	3.1	<2
00ELLC4	620	680	1	1.8	<50	0.2	2.33	2.8	<2
Mean	617	685	1	2.1	<50	0.2	2.27	3.0	<2
Stand. Dev. ^{##}	39	10	--	0.3	--	--	0.09	0.1	--
00ELMC1	644	660	1	2.1	<50	0.4	1.96	2.4	<2
00ELMC2	629	680	1	2.0	<50	0.4	2.08	2.4	<2
00ELMC3	628	690	1	2.4	<50	0.4	2.07	2.4	<2
00ELMC4	613	660	1	2.2	<50	0.4	2.05	2.5	<2
Mean	629	673	1	2.2	<50	0.4	2.04	2.4	<2
Stand. Dev.	13	15	--	0.2	--	--	0.05	0.1	--
00ELUC1	606	620	1	2.5	<50	0.3	1.49	1.7	<2
00ELUC2	597	610	1	2.4	<50	0.3	1.50	1.8	<2
00ELUC3	589	600	1	2.4	<50	0.3	1.48	1.8	<2
00ELUC4	600	610	1	2.5	<50	0.3	1.46	1.8	<2
Mean	598	610	1	2.5	<50	0.3	1.48	1.8	<2
Stand. Dev.	7	8	--	0.1	--	--	0.02	0.1	--
00ARLC1	601	640	1	2.0	<50	0.2	1.81	2.3	<2
00ARLC2	623	630	1	2.0	<50	0.1	1.79	2.3	<2
00ARLC3	593	640	1	2.2	<50	0.1	1.82	2.3	<2
00ARLC4	607	640	1	2.1	<50	0.1	1.89	2.4	<2
Mean	606	638	1	2.1	<50	0.1	1.82	2.3	<2
Stand. Dev.	13	5	--	0.1	--	0.1	0.04	0.1	--
00ARMC1	581	660	1	2.0	<50	0.2	2.71	3.6	<2
00ARMC2	629	660	1	2.1	<50	0.2	2.86	3.6	<2
00ARMC3	629	650	1	2.1	<50	0.2	2.83	3.3	<2
00ARMC4	581	660	1	2.0	<50	0.2	2.71	3.4	<2
Mean	605	658	1	2.1	<50	0.2	2.78	3.5	<2
Stand. Dev.	28	5	--	0.1	--	--	0.08	0.2	--
00ARUC1	581	620	1	2.3	<50	0.2	2.25	2.8	<2
00ARUC2	585	600	1	2.0	<50	0.2	2.29	2.8	<2
00ARUC3	580	620	1	1.9	<50	0.2	2.24	2.8	<2
00ARUC4	578	620	1	1.7	<50	0.2	2.26	2.9	<2
Mean	581	615	1	2.0	<50	0.2	2.26	2.8	<2
Stand. Dev.	3	10	--	0.3	--	--	0.02	0.1	--

Table 4. Analytical results for the 2000 composite soil samples, Deer Trail, CO Study Area.—Continued

Field No.	ICPMS Cd, ppm	ICP40 Ce, ppm	ICPMS Ce, ppm	ICP40 Co, ppm	ICPMS Co, ppm	ICP40 Cr, ppm	ICPMS Cr, ppm	ICPMS Cs, ppm	ICP40 Cu, ppm
00ELLC1	0.2	70	73	9	11	40	50	4.6	21
00ELLC2	0.2	63	68	9	11	34	49	4.5	18
00ELLC3	0.2	61	78	8	11	37	48	4.7	19
00ELLC4	0.2	66	68	9	10	36	46	4.5	19
Mean	0.2	65	72	9	11	37	48	4.6	19
Stand. Dev. ^{##}	--	4	5	1	1	3	2	0.1	1
00ELMC1	0.2	69	69	10	12	42	56	5.5	25
00ELMC2	0.2	72	68	11	12	25	56	5.5	27
00ELMC3	0.2	67	71	10	12	23	57	5.6	26
00ELMC4	0.3	66	71	10	12	26	59	5.5	25
Mean	0.2	69	70	10	12	29	57	5.5	26
Stand. Dev.	--	3	2	1	--	9	1	--	1
00ELUC1	0.2	83	75	12	12	55	69	6.9	24
00ELUC2	0.2	76	73	11	12	56	69	6.8	26
00ELUC3	0.2	77	76	10	12	46	72	6.7	24
00ELUC4	0.2	74	75	10	12	35	70	6.7	24
Mean	0.2	78	75	11	12	48	70	6.8	25
Stand. Dev.	--	4	1	1	--	10	1	0.1	1
00ARLC1	0.2	82	76	7	8.3	15	45	3.9	15
00ARLC2	0.2	81	79	7	8.1	33	44	3.8	15
00ARLC3	0.2	72	78	8	8.5	18	45	3.9	14
00ARLC4	0.2	80	74	7	8.5	17	46	3.8	16
Mean	0.2	79	77	7	8.4	21	45	3.9	15
Stand. Dev.	--	5	2	1	0.2	8	1	0.1	1
00ARMC1	0.3	79	82	8	9.4	15	49	4.2	16
00ARMC2	0.3	92	86	8	9.5	37	49	4.2	18
00ARMC3	0.3	86	83	8	8.7	33	45	4.1	18
00ARMC4	0.3	79	87	7	8.8	16	46	4.2	16
Mean	0.3	84	85	8	9.1	25	47	4.2	17
Stand. Dev.	--	6	2	1	0.4	11	2	0.1	1
00ARUC1	0.2	74	72	7	8.3	33	43	4.0	14
00ARUC2	0.2	76	73	6	8.6	16	45	3.9	14
00ARUC3	0.2	74	72	7	8.4	22	44	3.9	15
00ARUC4	0.2	74	72	8	8.5	14	44	3.9	14
Mean	0.2	75	72	7	8.5	21	44	3.9	14
Stand. Dev.	--	1	1	1	0.1	9	1	0.0	1

Table 4. Analytical results for the 2000 composite soil samples, Deer Trail, CO Study Area.—Continued

Field No.	ICPMS Cu, ppm	ICPMS Dy, ppm	ICPMS Er, ppm	ICP40 Eu, ppm	ICPMS Eu, ppm	ICP40 Fe, %	ICPMS Fe, %	ICP40 Ga, ppm	ICPMS Ga, ppm
00ELLC1	20	4.3	2.2	<2	1.1	3.35	3.9	15	14
00ELLC2	20	4.1	2.1	<2	1.0	3.05	3.9	14	13
00ELLC3	20	4.1	2.0	<2	1.1	3.15	4.0	14	13
00ELLC4	20	4.0	2.0	<2	1.0	3.18	3.9	14	13
Mean	20	4.1	2.1	<2	1.1	3.18	3.9	14	13
Stand. Dev. ^{##}	--	0.1	0.1	--	0.1	0.12	--	1	1
00ELMC1	20	4.3	2.2	<2	1.1	3.62	4.3	15	14
00ELMC2	20	4.2	2.1	<2	1.1	3.6	4.2	16	14
00ELMC3	30	4.3	2.2	<2	1.1	3.6	4.3	16	14
00ELMC4	30	4.4	2.2	<2	1.1	3.65	4.4	17	15
Mean	25	4.3	2.2	<2	1.1	3.62	4.3	16	14
Stand. Dev.	6	0.1	--	--	--	0.02	0.1	1	1
00ELUC1	20	4.4	2.2	<2	1.2	3.21	3.7	19	17
00ELUC2	20	4.4	2.2	<2	1.1	3.21	3.6	18	16
00ELUC3	20	4.6	2.3	<2	1.1	3.26	3.7	17	17
00ELUC4	20	4.4	2.2	<2	1.1	3.17	3.7	18	16
Mean	20	4.5	2.2	<2	1.1	3.21	3.7	18	17
Stand. Dev.	--	0.1	0.1	--	0.1	0.04	0.1	1	1
00ARLC1	20	4.2	2.0	<2	1.0	2.03	2.5	13	13
00ARLC2	20	4.1	1.9	<2	1.0	2.02	2.5	15	12
00ARLC3	20	4.0	2.0	<2	1.0	2.07	2.6	12	13
00ARLC4	20	4.0	2.0	<2	1.0	2.09	2.6	14	13
Mean	20	4.1	2.0	<2	1.0	2.05	2.6	14	13
Stand. Dev.	--	0.1	--	--	--	0.03	0.1	1	1
00ARMC1	20	4.5	2.1	<2	1.1	2.13	2.7	14	14
00ARMC2	20	4.4	2.1	<2	1.1	2.26	2.7	15	14
00ARMC3	20	4.4	2.1	<2	1.1	2.23	2.5	15	13
00ARMC4	20	4.4	2.1	<2	1.1	2.11	2.6	14	13
Mean	20	4.4	2.1	<2	1.1	2.18	2.6	15	14
Stand. Dev.	--	--	--	--	--	0.07	0.1	1	1
00ARUC1	20	3.9	1.9	<2	0.99	2.08	2.5	13	12
00ARUC2	20	3.8	1.9	<2	0.99	2.09	2.5	14	12
00ARUC3	20	3.8	1.9	<2	1.00	2.06	2.6	12	12
00ARUC4	20	3.8	1.9	<2	0.97	2.09	2.6	12	12
Mean	20	3.8	1.9	<2	0.99	2.08	2.6	13	12
Stand. Dev.	--	--	--	--	0.01	0.01	0.1	1	--

Table 4. Analytical results for the 2000 composite soil samples, Deer Trail, CO Study Area.—Continued

Field No.	ICPMS Gd, ppm	ICPMS Ge, ppm	CV-AAS*** Hg, ppm	ICP40 Ho, ppm	ICPMS Ho, ppm	ICPMS In, ppm	ICP40 K, %	ICPMS K, %	ICP40 La, ppm
00ELLC1	5.1	1.3	0.04	<4	0.68	< 0.1	2.24	2.6	36
00ELLC2	4.9	1.3	0.05	<4	0.68	< 0.1	1.97	2.5	33
00ELLC3	5.0	1.3	0.03	<4	0.67	< 0.1	2.08	2.6	32
00ELLC4	4.9	1.2	0.04	<4	0.64	< 0.1	2.13	2.4	35
Mean	5.0	1.3	0.04	<4	0.67	<0.1	2.11	2.5	34
Stand. Dev. ^{##}	0.1	--	0.01	--	0.02	--	0.11	0.1	2
00ELMC1	5.1	1.4	0.04	<4	0.69	< 0.1	2.21	2.4	35
00ELMC2	5.1	1.4	0.04	<4	0.69	< 0.1	2.27	2.4	37
00ELMC3	5.2	1.3	0.05	<4	0.70	< 0.1	2.28	2.6	35
00ELMC4	5.3	1.4	0.04	<4	0.71	< 0.1	2.26	2.6	36
Mean	5.2	1.4	0.04	<4	0.70	<0.1	2.26	2.5	36
Stand. Dev.	0.1	--	--	--	0.01	--	0.03	0.1	1
00ELUC1	5.3	1.4	0.03	<4	0.71	< 0.1	2.38	2.6	40
00ELUC2	5.4	1.3	0.04	<4	0.73	< 0.1	2.36	2.7	39
00ELUC3	5.4	1.5	0.04	<4	0.72	< 0.1	2.37	2.7	38
00ELUC4	5.4	1.4	0.03	<4	0.71	< 0.1	2.33	2.7	38
Mean	5.4	1.4	0.04	<4	0.72	< 0.1	2.36	2.7	39
Stand. Dev.	--	0.1	0.01	--	0.01	--	0.02	0.1	1
00ARLC1	5.1	1.3	0.02	<4	0.66	< 0.1	2.07	2.5	40
00ARLC2	5.2	1.2	0.02	<4	0.63	< 0.1	2.09	2.5	41
00ARLC3	5.0	1.2	0.03	<4	0.63	< 0.1	2.10	2.6	37
00ARLC4	4.9	1.2	0.03	<4	0.63	< 0.1	2.15	2.6	39
Mean	5.1	1.2	0.03	<4	0.64	< 0.1	2.10	2.6	39
Stand. Dev.	0.1	--	0.01	--	0.02	--	0.03	0.1	2
00ARMC1	5.6	1.3	0.03	<4	0.70	< 0.1	2.09	2.5	40
00ARMC2	5.8	1.2	0.02	<4	0.70	< 0.1	2.17	2.5	45
00ARMC3	5.5	1.2	0.02	<4	0.71	< 0.1	2.16	2.3	44
00ARMC4	5.5	1.2	0.03	<4	0.67	< 0.1	2.07	2.4	39
Mean	5.6	1.2	0.03	<4	0.70	< 0.1	2.12	2.4	42
Stand. Dev.	0.1	--	0.01	--	0.02	--	0.05	0.1	3
00ARUC1	4.9	1.2	0.02	<4	0.61	< 0.1	2.08	2.4	37
00ARUC2	4.8	1.2	0.03	<4	0.62	< 0.1	2.11	2.5	37
00ARUC3	4.8	1.2	0.03	<4	0.60	< 0.1	2.07	2.5	37
00ARUC4	4.8	1.1	0.03	<4	0.61	< 0.1	2.08	2.5	37
Mean	4.8	1.2	0.03	<4	0.61	< 0.1	2.09	2.5	37
Stand. Dev.	--	0.1	--	--	0.01	--	0.02	--	--

Table 4. Analytical results for the 2000 composite soil samples, Deer Trail, CO Study Area.—Continued

Field No.	ICPMS La, ppm	ICP40 Li, ppm	ICPMS Li, ppm	ICP40 Mg, %	ICPMS Mg, %	ICP40 Mn, ppm	ICPMS Mn, ppm	ICP40 Mo, ppm	ICPMS Mo, ppm
00ELLC1	41	28	31	0.73	0.95	405	470	2	1.4
00ELLC2	38	24	30	0.66	0.9	362	480	<2	1.5
00ELLC3	44	25	31	0.66	0.93	372	490	2	1.4
00ELLC4	40	27	30	0.70	0.89	376	440	2	1.4
Mean	41	26	31	0.69	0.92	379	470	2	1.4
Stand. Dev. ^{##}	3	2	1	0.03	0.03	18	22	--	0.1
00ELMC1	39	33	36	0.90	1.1	406	460	2	1.7
00ELMC2	38	34	36	0.97	1.1	379	440	2	1.7
00ELMC3	40	34	36	0.92	1.1	385	460	2	1.6
00ELMC4	40	33	37	0.89	1.2	377	460	2	1.7
Mean	39	34	36	0.92	1.1	387	455	2	1.7
Stand. Dev.	1	1	1	0.03	0.1	13	10	--	0.1
00ELUC1	42	42	45	1.25	1.5	300	350	<2	1.2
00ELUC2	41	43	46	1.24	1.5	302	340	<2	1.2
00ELUC3	43	43	46	1.21	1.5	303	330	<2	1.1
00ELUC4	42	42	46	1.22	1.5	302	350	<2	1.2
Mean	42	43	46	1.23	1.5	302	343	<2	1.2
Stand. Dev.	1	1	1	0.02	--	1	10	--	--
00ARLC1	43	23	27	0.69	0.90	294	370	<2	0.7
00ARLC2	44	24	27	0.70	0.89	315	370	<2	0.6
00ARLC3	44	23	27	0.67	0.92	319	380	<2	0.7
00ARLC4	42	24	27	0.71	0.95	305	380	<2	0.7
Mean	43	24	27	0.69	0.92	308	375	<2	0.7
Stand. Dev.	1	1	--	0.02	0.03	11	6	--	0.1
00ARMC1	47	24	29	0.76	1.10	309	420	<2	0.8
00ARMC2	47	27	29	0.82	1.00	359	420	<2	0.7
00ARMC3	46	27	28	0.81	0.96	356	390	<2	0.7
00ARMC4	48	24	28	0.74	0.98	315	400	<2	0.8
Mean	47	26	29	0.78	1.01	335	408	<2	0.8
Stand. Dev.	1	2	1	0.04	0.06	26	15	--	0.1
00ARUC1	40	25	26	0.75	0.98	303	350	<2	0.7
00ARUC2	40	24	28	0.75	0.99	282	360	<2	0.7
00ARUC3	41	24	28	0.75	1.00	294	360	<2	0.7
00ARUC4	40	24	28	0.75	1.00	278	370	<2	0.7
Mean	40	24	28	0.75	0.99	289	360	<2	0.7
Stand. Dev.	1	1	1	--	0.01	11	8	--	--

Table 4. Analytical results for the 2000 composite soil samples, Deer Trail, CO Study Area.—Continued

Field No.	ICP40 Na, %	ICPMS Na, %	ICP40 Nb, ppm	ICPMS Nb, ppm	ICP40 Nd, ppm	ICPMS Nd, ppm	ICP40 Ni, ppm	ICPMS Ni, ppm	ICP40 P, %
00ELLC1	0.70	0.78	11	13	32	34	18	23	0.07
00ELLC2	0.63	0.74	9	13	31	32	16	22	0.06
00ELLC3	0.66	0.78	10	12	29	35	17	23	0.06
00ELLC4	0.67	0.73	15	12	33	32	18	22	0.07
Mean	0.66	0.76	11	13	31	33	17	23	0.06
Stand. Dev. ^{##}	0.03	0.03	3	1	2	2	1	1	--
00ELMC1	0.65	0.70	9	12	33	32	22	26	0.08
00ELMC2	0.65	0.68	12	13	35	31	23	26	0.09
00ELMC3	0.66	0.71	10	13	33	34	21	27	0.08
00ELMC4	0.65	0.74	10	13	32	34	21	27	0.08
Mean	0.65	0.71	10	13	33	33	22	27	0.08
Stand. Dev.	0.01	0.03	1	1	1	2	1	1	--
00ELUC1	0.69	0.75	14	14	35	34	24	28	0.08
00ELUC2	0.69	0.74	12	14	35	34	24	28	0.08
00ELUC3	0.69	0.75	11	15	38	36	24	28	0.08
00ELUC4	0.68	0.76	12	14	34	35	24	28	0.08
Mean	0.68	0.75	12	14	36	35	24	28	0.08
Stand. Dev.	0.01	0.01	1	1	2	1	--	--	--
00ARLC1	0.71	0.83	10	14	35	35	15	18	0.05
00ARLC2	0.72	0.82	11	13	36	36	15	17	0.05
00ARLC3	0.73	0.84	8	13	34	36	15	18	0.05
00ARLC4	0.75	0.86	10	13	36	34	15	18	0.06
Mean	0.73	0.84	10	13	35	35	15	18	0.05
Stand. Dev.	0.02	0.02	1	1	1	1	--	1	--
00ARMC1	0.76	0.90	11	14	38	38	15	20	0.06
00ARMC2	0.79	0.91	11	15	39	38	16	20	0.06
00ARMC3	0.79	0.82	9	14	38	38	17	18	0.06
00ARMC4	0.76	0.86	11	14	37	38	15	18	0.06
Mean	0.77	0.87	11	14	38	38	16	19	0.06
Stand. Dev.	0.02	0.04	1	1	1	--	1	1	--
00ARUC1	0.73	0.83	10	13	34	32	14	17	0.06
00ARUC2	0.74	0.84	9	12	35	33	14	17	0.06
00ARUC3	0.72	0.85	9	12	32	33	15	17	0.06
00ARUC4	0.73	0.85	9	12	33	32	15	18	0.06
Mean	0.73	0.84	9	12	34	33	15	17	0.06
Stand. Dev.	0.01	0.01	1	1	1	1	1	1	--

Table 4. Analytical results for the 2000 composite soil samples, Deer Trail, CO Study Area.—Continued

Field No.	ICPMS P, %	ICP40 Pb, ppm	ICPMS Pb, ppm	ICPMS Pr, ppm	ICPMS Re, ppm	ICPMS Sb, ppm	ICP40 Sc, ppm	ICPMS Sc, ppm
00ELLC1	0.09	26	25	8.2	< 0.05	1.0	8	8.8
00ELLC2	0.08	23	25	7.8	< 0.05	1.0	7	8.6
00ELLC3	0.09	22	25	8.7	< 0.05	1.0	7	8.7
00ELLC4	0.08	22	25	7.9	< 0.05	1.0	8	8.2
Mean	0.09	23	25	8.2	<0.05	1.0	8	8.6
Stand. Dev. ^{##}	0.01	2	--	0.4	--	--	1	0.3
00ELMC1	0.1	26	28	7.9	< 0.05	1.2	9	9.3
00ELMC2	0.1	28	28	7.7	< 0.05	1.2	10	9.3
00ELMC3	0.1	25	28	8.3	< 0.05	1.2	9	9.7
00ELMC4	0.1	25	28	8.2	< 0.05	1.2	9	10.0
Mean	0.1	26	28	8.0	<0.05	1.2	9	9.6
Stand. Dev.	--	1	--	0.3	--	--	1	0.3
00ELUC1	0.1	25	25	8.4	< 0.05	1.0	11	11.0
00ELUC2	0.1	25	26	8.3	< 0.05	1.0	11	12.0
00ELUC3	0.1	25	25	8.6	< 0.05	1.0	11	12.0
00ELUC4	0.1	24	26	8.4	< 0.05	1.0	11	12.0
Mean	0.1	25	26	8.4	< 0.05	1.0	11	11.8
Stand. Dev.	--	1	1	0.1	--	--	--	0.5
00ARLC1	0.07	16	18	8.7	< 0.05	0.7	8	8.3
00ARLC2	0.07	16	18	8.9	< 0.05	0.7	8	8.2
00ARLC3	0.07	15	18	8.7	< 0.05	0.7	7	8.4
00ARLC4	0.07	17	18	8.2	< 0.05	0.7	8	8.6
Mean	0.07	16	18	8.6	< 0.05	0.7	8	8.4
Stand. Dev.	--	1	--	0.3	--	--	1	0.2
00ARMC1	0.08	17	19	9.3	< 0.05	0.7	8	9.0
00ARMC2	0.08	18	20	9.6	< 0.05	0.8	8	9.2
00ARMC3	0.07	18	18	9.4	< 0.05	0.7	8	8.2
00ARMC4	0.08	16	19	9.7	< 0.05	0.7	8	8.6
Mean	0.08	17	19	9.5	< 0.05	0.7	8	8.8
Stand. Dev.	--	1	1	0.2	--	--	--	0.4
00ARUC1	0.08	17	18	7.9	< 0.05	0.7	7	8.0
00ARUC2	0.08	17	18	8.1	< 0.05	0.7	7	8.2
00ARUC3	0.08	17	18	8.0	< 0.05	0.7	7	8.0
00ARUC4	0.08	16	18	8.1	< 0.05	0.7	7	8.1
Mean	0.08	17	18	8.0	< 0.05	0.7	7	8.1
Stand. Dev.	--	1	--	0.1	--	--	--	0.1

Table 4. Analytical results for the 2000 composite soil samples, Deer Trail, CO Study Area.—Continued

Field No.	ICPMS Se, ppm	HGAAS Se, ppm	ICPMS Sm, ppm	ICP40 Sn, ppm	ICPMS Sn, ppm	ICP40 Sr, ppm	ICPMS Sr, ppm	ICP40 Ta, ppm	ICPMS Tb, ppm
00ELLC1	< 1	1	5.9	<50	2	148	140	<40	0.67
00ELLC2	< 1	1	5.4	<50	2	132	140	<40	0.68
00ELLC3	< 1	1	5.7	<50	2	139	140	<40	0.64
00ELLC4	< 1	1	5.4	<50	2	142	140	<40	0.62
Mean	<1	1	5.6	<50	2	140	140	<40	0.65
Stand. Dev. ^{##}	--	--	0.2	--	--	7	--	--	0.03
00ELMC1	1	1.2	5.6	<50	2	132	130	<40	0.66
00ELMC2	1	1.2	5.5	<50	2	140	130	<40	0.65
00ELMC3	< 1	1.2	5.8	<50	2	139	150	<40	0.67
00ELMC4	< 1	1.2	6.0	<50	2	141	130	<40	0.68
Mean	1	1.2	5.7	<50	2	138	135	<40	0.67
Stand. Dev.	--	--	0.2	--	--	4	10	--	0.01
00ELUC1	< 1	1	6.0	<50	2	138	130	<40	0.68
00ELUC2	< 1	1	6.0	<50	2	137	130	<40	0.67
00ELUC3	< 1	1	6.0	<50	2	137	130	<40	0.70
00ELUC4	< 1	1	6.1	<50	2	135	130	<40	0.70
Mean	<1	1	6.0	<50	2	137	130	<40	0.69
Stand. Dev.	--	--	--	--	--	1	--	--	0.02
00ARLC1	< 1	0.4	5.9	<50	2	148	140	<40	0.64
00ARLC2	< 1	0.4	6.0	<50	2	148	140	<40	0.65
00ARLC3	< 1	0.4	5.8	<50	2	150	140	<40	0.64
00ARLC4	< 1	0.4	5.7	<50	2	155	140	<40	0.62
Mean	< 1	0.4	5.9	<50	2	150	140	<40	0.64
Stand. Dev.	--	--	0.1	--	--	3	--	--	0.01
00ARMC1	< 1	0.4	6.4	<50	2	167	170	<40	0.72
00ARMC2	< 1	0.4	6.6	<50	2	175	170	<40	0.72
00ARMC3	< 1	0.4	6.3	<50	2	173	170	<40	0.69
00ARMC4	< 1	0.4	6.5	<50	2	165	170	<40	0.71
Mean	< 1	0.4	6.5	<50	2	170	170	<40	0.71
Stand. Dev.	--	--	0.1	--	--	5	--	--	0.01
00ARUC1	< 1	0.4	5.4	<50	2	167	160	<40	0.62
00ARUC2	< 1	0.4	5.6	<50	2	173	150	<40	0.60
00ARUC3	< 1	0.4	5.6	<50	2	163	160	<40	0.60
00ARUC4	< 1	0.4	5.4	<50	2	165	170	<40	0.60
Mean	< 1	0.4	5.5	<50	2	167	160	<40	0.61
Stand. Dev.	--	--	0.1	--	--	4	8	--	0.01

Table 4. Analytical results for the 2000 composite soil samples, Deer Trail, CO Study Area.—Continued

Field No.	ICPMS Te, ppm	ICP40 Th, ppm	ICPMS Th, ppm	ICP40 Ti, %	ICPMS Ti, %	ICPMS Tl, ppm	ICPMS Tm, ppm	ICP40 U, ppm	ICPMS U, ppm
00ELLC1	< 0.1	10	11	0.23	0.4	0.7	0.30	<100	3.3
00ELLC2	< 0.1	9	11	0.21	0.3	0.7	0.31	<100	3.3
00ELLC3	< 0.1	9	12	0.22	0.3	0.7	0.28	<100	3.2
00ELLC4	< 0.1	9	11	0.23	0.3	0.6	0.28	<100	3.3
Mean	<0.1	9	11	0.22	0.3	0.7	0.29	<100	3.3
Stand. Dev. ^{##}	--	1	1	0.01	--	0.1	0.02	--	--
00ELMC1	< 0.1	10	12	0.24	0.3	0.7	0.30	<100	3.5
00ELMC2	< 0.1	10	12	0.27	0.3	0.7	0.29	<100	3.5
00ELMC3	< 0.1	9	12	0.26	0.3	0.7	0.30	<100	3.5
00ELMC4	< 0.1	10	12	0.24	0.3	0.7	0.31	<100	3.7
Mean	<0.1	10	12	0.25	0.3	0.7	0.30	<100	3.6
Stand. Dev.	--	1	--	0.01	--	--	0.01	--	0.1
00ELUC1	< 0.1	11	12	0.29	0.4	0.8	0.30	<100	3.0
00ELUC2	< 0.1	11	12	0.29	0.4	0.8	0.31	<100	3.1
00ELUC3	< 0.1	11	13	0.30	0.4	0.7	0.32	<100	3.2
00ELUC4	< 0.1	10	12	0.29	0.4	0.7	0.31	<100	3.1
Mean	<0.1	11	12	0.29	0.4	0.8	0.31	<100	3.1
Stand. Dev.	--	1	1	--	--	0.1	0.01	--	0.1
00ARLC1	< 0.1	12	12	0.24	0.3	0.6	0.28	<100	2.6
00ARLC2	< 0.1	11	12	0.23	0.3	0.6	0.28	<100	2.7
00ARLC3	< 0.1	10	12	0.24	0.3	0.6	0.27	<100	2.7
00ARLC4	< 0.1	12	12	0.25	0.3	0.6	0.28	<100	2.8
Mean	< 0.1	11	12	0.24	0.3	0.6	0.28	<100	2.7
Stand. Dev.	--	1	--	0.01	--	--	--	--	0.1
00ARMC1	< 0.1	11	14	0.26	0.4	0.7	0.30	<100	3.1
00ARMC2	< 0.1	11	14	0.27	0.4	0.7	0.31	<100	3.1
00ARMC3	< 0.1	12	14	0.25	0.3	0.7	0.30	<100	2.9
00ARMC4	< 0.1	11	14	0.26	0.3	0.7	0.29	<100	3.0
Mean	< 0.1	11	14	0.26	0.4	0.7	0.30	<100	3.0
Stand. Dev.	--	1	--	0.01	0.1	--	0.01	--	0.1
00ARUC1	< 0.1	10	12	0.24	0.3	0.6	0.27	<100	2.8
00ARUC2	< 0.1	11	12	0.24	0.3	0.6	0.28	<100	2.9
00ARUC3	< 0.1	8	11	0.23	0.3	0.6	0.26	<100	2.7
00ARUC4	< 0.1	9	11	0.24	0.3	0.6	0.26	<100	2.6
Mean	< 0.1	10	12	0.24	0.3	0.6	0.27	<100	2.8
Stand. Dev.	--	1	1	--	--	--	0.01	--	0.1

Table 4. Analytical results for the 2000 composite soil samples, Deer Trail, CO Study Area.—Continued

Field No.	ICP40 V, ppm	ICPMS V, ppm	ICPMS W, ppm	ICP40 Y, ppm	ICPMS Y, ppm	ICP40 Yb, ppm	ICPMS Yb, ppm	ICP40 Zn, ppm	ICPMS Zn, ppm
00ELLC1	84	94	1.4	21	30	3	2	78	89
00ELLC2	75	91	2.1	19	30	2	2.1	70	87
00ELLC3	76	92	3.2	20	30	2	2	71	89
00ELLC4	80	88	1.4	20	29	3	1.9	73	86
Mean	79	91	2.0	20	30	3	2.00	73	88
Stand. Dev. ^{##}	4	3	0.9	1	1	1	0.08	4	2
00ELMC1	97	100	1.3	23	30	2	2.1	88	100
00ELMC2	101	100	1.3	23	32	2	2	90	99
00ELMC3	98	110	1.3	23	31	2	2.2	85	100
00ELMC4	96	110	1.4	21	31	2	2	85	100
Mean	98	105	1.3	23	31	2	2.08	87	100
Stand. Dev.	2	6	--	1	1	--	0.10	2	1
00ELUC1	115	120	1.3	24	31	3	2.1	92	100
00ELUC2	113	120	1.4	24	31	3	2.1	92	100
00ELUC3	112	120	1.5	23	34	3	2.2	90	100
00ELUC4	112	120	1.4	23	31	3	2.1	89	100
Mean	113	120	1.4	24	32	3	2.13	91	100
Stand. Dev.	1	--	0.1	1	2	--	0.05	2	--
00ARLC1	69	80	0.9	20	29	2	1.9	53	65
00ARLC2	71	78	1.0	21	28	3	1.8	54	63
00ARLC3	68	80	1.0	20	28	2	1.8	54	64
00ARLC4	71	80	1.0	21	28	2	1.8	56	66
Mean	70	80	1.0	21	28	2	1.8	54	65
Stand. Dev.	2	1	0.1	1	1	1	0.1	1	1
00ARMC1	71	85	1.0	21	31	2	2.1	55	70
00ARMC2	78	85	1.1	23	31	3	2.0	59	70
00ARMC3	77	79	1.0	22	30	3	2.0	60	65
00ARMC4	70	81	1.0	21	30	2	2.0	56	66
Mean	74	83	1.0	22	31	3	2.0	58	68
Stand. Dev.	4	3	0.1	1	1	1	0.1	2	3
00ARUC1	71	77	0.9	20	27	2	1.8	55	63
00ARUC2	71	79	1.0	20	27	2	1.9	55	64
00ARUC3	69	80	0.9	19	26	2	1.8	57	64
00ARUC4	70	80	0.8	20	27	2	1.8	54	65
Mean	70	79	0.9	20	27	2	1.8	55	64
Stand. Dev.	1	1	0.1	1	1	--	0.1	1	1

Table 5. Analytical results for the 2002 composite soil samples, Deer Trail, CO Study Area.

Field No.	ICP40* Ag, ppm	ICPMS** Ag, ppm	ICP40 Al, %	ICPMS Al, %	ICP40 As, ppm	ICPMS As, ppm	ICP40 Au, ppm	ICPMS Au, ppm
02ARUC4	<2	0.02	5.19	5.13	<10	<3	<8	< 0.005
02ARUC5	<2	0.02	5.21	5.35	<10	<3	<8	< 0.005
02ARUC6	<2	0.02	5.15	5.24	10	<3	<8	< 0.005
Mean	--###	0.02	5.18	5.24	--	--	--	--
Stand. Dev.##	--	--	0.03	0.11	--	--	--	--
02ARMC4	<2	0.03	5.39	5.70	<10	<3	<8	< 0.005
02ARMC5	<2	0.04	5.52	5.64	<10	<3	<8	< 0.005
02ARMC6	<2	0.05	5.57	5.60	<10	<3	<8	< 0.005
Mean	--	0.04	5.49	5.65	--	--	--	--
Stand. Dev.	--	0.01	0.09	0.05	--	--	--	--
02ARLC4	<2	0.03	5.12	5.41	<10	<3	<8	< 0.005
02ARLC5	<2	0.03	5.06	5.35	<10	<3	<8	< 0.005
02ARLC6	<2	0.02	5.42	5.40	<10	<3	<8	< 0.005
Mean	--	0.03	5.20	5.39	--	--	--	--
Stand. Dev.	--	0.01	0.19	0.03	--	--	--	--
02ELUC4	<2	<0.01	6.54	7.03	14	6.0	<8	< 0.005
02ELUC5	<2	<0.01	6.68	6.95	13	6.0	<8	0.023
02ELUC6	<2	0.01	6.69	6.98	14	6.0	<8	< 0.005
Mean	--	--	6.64	6.99	14	6.0	--	--
Stand. Dev.	--	--	0.09	0.04	1	--	--	--
02ELMC4	<2	0.06	5.93	6.40	15	9.0	<8	< 0.005
02ELMC5	<2	0.09	6.09	6.25	17	8.0	<8	< 0.005
02ELMC6	<2	0.09	6.08	6.19	16	8.0	<8	< 0.005
Mean	--	0.08	6.03	6.28	16	8.3	--	--
Stand. Dev.	--	0.02	0.09	0.11	1	0.6	--	--
02ELLC4	<2	0.02	5.91	5.91	14	6.0	<8	< 0.005
02ELLC5	<2	0.02	5.73	6.02	14	6.0	<8	< 0.005
02ELLC6	<2	0.01	5.83	6.09	14	6.0	<8	< 0.005
Mean	--	0.02	5.83	6.01	14	6.0	--	--
Stand. Dev.	--	--	0.09	0.09	--	--	--	--

* - ICP–AES determination after a total, four-acid digestion

** - ICP–MS determination after a total, four-acid digestion

*** - Cold Vapor – Atomic Absorption Spectrometry

- Hydride Generation – Atomic Absorption Spectrometry

- Standard Deviation

- Not Determined

Table 5. Analytical results for the 2002 composite soil samples, Deer Trail, CO Study Area.—Continued

Field No.	ICP40 Ba, ppm	ICPMS Ba, ppm	ICP40 Be, ppm	ICPMS Be, ppm	ICP40 Bi, ppm	ICPMS Bi, ppm	ICP40 Ca, %	ICPMS Ca, %
02ARUC4	606	592	1	1.5	<50	0.14	1.62	1.62
02ARUC5	614	619	1	1.5	<50	0.12	1.59	1.70
02ARUC6	612	616	1	1.5	<50	0.13	1.54	1.64
Mean	611	609	1	1.5	--	0.13	1.58	1.65
Stand. Dev. ^{##}	4	15	--	--	--	0.01	0.04	0.04
02ARMC4	624	656	2	1.9	<50	0.18	2.14	2.33
02ARMC5	630	646	2	1.8	<50	0.19	2.14	2.28
02ARMC6	638	648	2	1.7	<50	0.19	2.20	2.28
Mean	631	650	2	1.8	--	0.19	2.16	2.30
Stand. Dev.	7	5	--	0.1	--	0.01	0.04	0.03
02ARLC4	605	639	1	1.6	<50	0.13	1.57	1.70
02ARLC5	601	632	1	1.7	<50	0.13	1.57	1.68
02ARLC6	638	640	2	1.7	<50	0.13	1.64	1.69
Mean	615	637	1	1.7	--	0.13	1.59	1.69
Stand. Dev.	20	4	1	--	--	--	0.04	0.01
02ELUC4	575	614	2	2.1	<50	0.33	1.43	1.54
02ELUC5	591	609	2	1.9	<50	0.32	1.46	1.52
02ELUC6	600	607	2	1.9	<50	0.31	1.45	1.51
Mean	589	610	2	2.0	--	0.32	1.45	1.52
Stand. Dev.	13	4	--	0.1	--	0.01	0.01	0.02
02ELMC4	616	664	2	2.1	<50	0.42	2.07	2.15
02ELMC5	628	652	2	2.1	<50	0.42	2.09	2.10
02ELMC6	622	656	2	1.9	<50	0.40	2.09	2.08
Mean	622	657	2	2.0	--	0.41	2.08	2.11
Stand. Dev.	6	6	--	0.1	--	0.01	0.01	0.04
02ELLC4	635	638	2	1.7	<50	0.24	1.96	1.94
02ELLC5	604	646	2	1.8	<50	0.23	1.95	1.99
02ELLC6	622	648	2	1.8	<50	0.23	1.97	2.03
Mean	620	644	2	1.8	--	0.23	1.96	1.99
Stand. Dev.	16	5	--	0.1	--	0.01	0.01	0.05

Table 5. Analytical results for the 2002 composite soil samples, Deer Trail, CO Study Area.—Continued

Field No.	ICP40 Cd, ppm	ICPMS Cd, ppm	ICP40 Ce, ppm	ICPMS Ce, ppm	ICP40 Co, ppm	ICPMS Co, ppm	ICP40 Cr, ppm	ICPMS Cr, ppm
02ARUC4	<2	0.24	77	71	6	7	35	32
02ARUC5	<2	0.19	79	73	6	7	19	34
02ARUC6	<2	0.19	83	71	6	7	32	32
Mean	--	0.21	80	72	6	7	29	33
Stand. Dev. ^{##}	--	0.03	3	1	--	--	9	1
02ARMC4	<2	0.24	83	84	6	8	34	37
02ARMC5	<2	0.24	82	80	6	7	25	37
02ARMC6	<2	0.24	84	84	6	7	38	36
Mean	--	0.24	83	83	6	7	32	37
Stand. Dev.	--	--	1	2	--	--	7	1
02ARLC4	<2	0.21	76	77	6	7	22	32
02ARLC5	<2	0.21	78	77	6	7	33	33
02ARLC6	<2	0.20	77	80	6	7	36	33
Mean	--	0.21	77	78	6	7	30	33
Stand. Dev.	--	--	1	2	--	--	7	1
02ELUC4	<2	0.19	73	74	9	10	38	56
02ELUC5	<2	0.20	76	77	9	10	27	54
02ELUC6	<2	0.19	76	74	9	10	34	54
Mean	--	0.19	75	75	9	10	33	55
Stand. Dev.	--	0.01	2	2	--	--	6	1
02ELMC4	<2	0.21	73	74	9	10	45	48
02ELMC5	<2	0.21	70	69	9	10	29	47
02ELMC6	<2	0.21	72	70	9	10	36	47
Mean	--	0.21	72	71	9	10	37	47
Stand. Dev.	--	--	2	2	--	--	8	1
02ELLC4	<2	0.21	76	89	8	9	43	41
02ELLC5	<2	0.22	72	74	8	9	39	42
02ELLC6	<2	0.21	72	75	8	9	43	42
Mean	--	0.21	73	79	8	9	42	42
Stand. Dev.	--	--	2	8	--	--	2	1

Table 5. Analytical results for the 2002 composite soil samples, Deer Trail, CO Study Area.—Continued

Field No.	ICPMS Cs, ppm	ICP40 Cu, ppm	ICPMS Cu, ppm	ICPMS Dy, ppm	ICPMS Er, ppm	ICP40 Eu, ppm	ICPMS Eu, ppm	ICP40 Fe, %
02ARUC4	3.7	14	12	4.4	2.3	<2	1.1	2.10
02ARUC5	3.9	14	12	4.5	2.5	<2	1.2	2.04
02ARUC6	3.8	13	12	4.7	2.4	<2	1.1	2.00
Mean	3.8	14	12	4.5	2.4	--	1.1	2.05
Stand. Dev. ^{##}	0.1	1	--	0.1	0.1	--	--	0.05
02ARMC4	4.2	17	17	5.2	2.9	<2	1.3	2.12
02ARMC5	4.1	18	15	4.9	2.7	<2	1.3	2.13
02ARMC6	4.1	17	15	5.0	2.7	<2	1.3	2.18
Mean	4.1	17	15	5.0	2.7	--	1.3	2.14
Stand. Dev.	0.1	1	1	0.1	0.1	--	--	0.03
02ARLC4	3.9	14	12	4.7	2.6	<2	1.2	1.92
02ARLC5	3.8	15	12	4.6	2.5	<2	1.2	1.91
02ARLC6	3.8	15	12	4.7	2.6	<2	1.2	2.00
Mean	3.8	15	12	4.7	2.5	--	1.2	1.94
Stand. Dev.	--	1	--	0.1	--	--	--	0.05
02ELUC4	7.1	24	20	5.3	2.9	<2	1.4	3.11
02ELUC5	7.0	22	20	5.3	2.9	<2	1.4	3.17
02ELUC6	6.9	22	20	5.2	2.9	<2	1.4	3.16
Mean	7.0	23	20	5.2	2.9	--	1.4	3.15
Stand. Dev.	0.1	1	--	0.1	--	--	--	0.03
02ELMC4	6.0	27	23	5.2	2.9	<2	1.3	3.50
02ELMC5	5.9	25	23	5.0	2.8	<2	1.2	3.52
02ELMC6	5.9	25	22	5.1	2.9	<2	1.3	3.57
Mean	5.9	26	23	5.1	2.9	--	1.3	3.53
Stand. Dev.	0.1	1	--	0.1	0.0	--	--	0.04
02ELLC4	5.2	21	17	5.4	2.9	<2	1.3	3.12
02ELLC5	5.4	20	17	5.0	2.8	<2	1.2	3.07
02ELLC6	5.3	21	17	5.2	2.9	<2	1.3	3.15
Mean	5.3	21	17	5.2	2.9	--	1.3	3.11
Stand. Dev.	0.1	1	--	0.2	0.1	--	--	0.04

Table 5. Analytical results for the 2002 composite soil samples, Deer Trail, CO Study Area.—Continued

Field No.	ICPMS Fe, %	ICP40 Ga, ppm	ICPMS Ga, ppm	ICPMS Gd, ppm	ICPMS Ge, ppm	CV-AAS*** Hg, ppm	ICP40 Ho, ppm	ICPMS Ho, ppm
02ARUC4	2.0	13	11	5.1	0.9	0.13	<4	0.92
02ARUC5	2.1	13	11	5.1	1.0	0.18	<4	0.96
02ARUC6	2.0	13	11	5.1	1.0	0.03	<4	0.93
Mean	2.0	13	11	5.1	1.0	0.11	--	0.94
Stand. Dev. ^{##}	--	--	--	--	--	0.08	--	0.02
02ARMC4	2.2	14	13	5.9	1.0	0.02	<4	1.07
02ARMC5	2.1	14	12	5.5	1.0	0.02	<4	1.03
02ARMC6	2.1	14	12	5.9	1.0	0.02	<4	1.03
Mean	2.1	14	12	5.7	1.0	0.02	--	1.04
Stand. Dev.	--	--	--	0.2	--	--	--	0.02
02ARLC4	2.0	13	12	5.4	1.0	0.02	<4	0.97
02ARLC5	2.0	12	11	5.3	1.0	<0.02	<4	0.97
02ARLC6	2.0	13	12	5.5	1.0	0.02	<4	0.99
Mean	2.0	13	12	5.4	1.0	0.02	--	0.98
Stand. Dev.	--	1	--	0.1	--	--	--	0.01
02ELUC4	3.2	17	16	5.8	1.1	0.03	<4	1.22
02ELUC5	3.1	17	16	5.8	1.1	0.03	<4	1.11
02ELUC6	3.1	17	16	5.7	1.1	0.03	<4	1.10
Mean	3.1	17	16	5.8	1.1	0.03	--	1.14
Stand. Dev.	--	--	--	0.1	--	0.00	--	0.07
02ELMC4	3.5	15	14	5.6	1.1	0.04	<4	1.10
02ELMC5	3.5	15	14	5.3	1.1	0.04	<4	1.12
02ELMC6	3.4	15	14	5.6	1.1	0.04	<4	1.09
Mean	3.5	15	14	5.5	1.1	0.04	--	1.10
Stand. Dev.	--	--	--	0.1	--	0.00	--	0.02
02ELLC4	2.9	15	13	5.9	1.0	0.03	<4	1.13
02ELLC5	3.0	14	13	5.7	1.1	0.03	<4	1.08
02ELLC6	3.0	15	13	5.7	1.0	0.03	<4	1.12
Mean	3.0	15	13	5.7	1.0	0.03	--	1.11
Stand. Dev.	0.1	1	--	0.1	--	--	--	0.03

Table 5. Analytical results for the 2002 composite soil samples, Deer Trail, CO Study Area.—Continued

Field No.	ICPMS In, ppm	ICP40 K, %	ICPMS K, %	ICP40 La, ppm	ICPMS La, ppm	ICP40 Li, ppm	ICPMS Li, ppm	ICP40 Mg, %
02ARUC4	0.05	2.04	2.0	38	38	24	22	0.65
02ARUC5	0.05	1.99	2.1	38	40	22	22	0.64
02ARUC6	0.05	1.98	2.1	40	38	22	22	0.63
Mean	0.05	2.00	2.1	39	39	23	22	0.64
Stand. Dev. ^{##}	--	0.03	--	1.2	1	1	--	0.01
02ARMC4	0.06	2.01	2.1	40	45	24	24	0.74
02ARMC5	0.05	2.02	2.1	40	43	24	23	0.73
02ARMC6	0.05	2.08	2.1	41	44	25	24	0.75
Mean	0.05	2.04	2.1	40	44	24	24	0.74
Stand. Dev.	--	0.04	--	0.6	1	1	--	0.01
02ARLC4	0.05	1.92	2.1	37	41	21	22	0.60
02ARLC5	0.05	1.92	2.1	38	41	22	22	0.62
02ARLC6	0.05	2.02	2.1	38	43	23	22	0.63
Mean	0.05	1.95	2.1	38	42	22	22	0.62
Stand. Dev.	--	0.06	--	0.6	1	1	--	0.01
02ELUC4	0.08	2.14	2.3	36	40	41	40	1.22
02ELUC5	0.07	2.18	2.2	37	41	42	40	1.24
02ELUC6	0.07	2.18	2.2	37	40	42	40	1.26
Mean	0.07	2.17	2.2	37	40	42	40	1.24
Stand. Dev.	--	0.02	--	0.6	1	1	--	0.02
02ELMC4	0.06	2.11	2.2	35	41	35	34	0.96
02ELMC5	0.06	2.14	2.2	34	37	35	33	0.99
02ELMC6	0.07	2.17	2.1	35	37	36	33	0.99
Mean	0.06	2.14	2.2	35	38	35	34	0.98
Stand. Dev.	--	0.03	--	0.6	2	1	1	0.02
02ELLC4	0.06	2.13	2.1	38	46	32	30	0.89
02ELLC5	0.06	2.10	2.1	35	39	31	30	0.87
02ELLC6	0.07	2.14	2.2	36	40	32	30	0.88
Mean	0.06	2.12	2.1	36	42	32	30	0.88
Stand. Dev.	--	0.02	--	1.5	4	1	--	0.01

Table 5. Analytical results for the 2002 composite soil samples, Deer Trail, CO Study Area.—Continued

Field No.	ICPMS Mg, %	ICP40 Mn, ppm	ICPMS Mn, ppm	ICP40 Mo, ppm	ICPMS Mo, ppm	ICP40 Na, %	ICPMS Na, %	ICP40 Nb, ppm
02ARUC4	0.64	296	296	<2	0.69	0.70	0.69	15
02ARUC5	0.66	289	305	<2	0.72	0.68	0.72	16
02ARUC6	0.64	290	299	<2	0.68	0.67	0.71	18
Mean	0.65	292	300	--	0.70	0.68	0.71	16
Stand. Dev. ^{##}	0.01	4	5	--	0.02	0.01	0.01	2
02ARMC4	0.76	323	343	<2	0.79	0.73	0.77	16
02ARMC5	0.75	318	340	<2	0.83	0.73	0.76	17
02ARMC6	0.75	329	333	<2	0.75	0.75	0.76	16
Mean	0.76	323	339	--	0.79	0.74	0.76	16
Stand. Dev.	0.01	6	5	--	0.04	0.01	0.01	1
02ARLC4	0.65	282	299	<2	0.74	0.65	0.70	19
02ARLC5	0.63	285	300	<2	0.69	0.64	0.69	17
02ARLC6	0.64	286	298	<2	0.69	0.67	0.69	16
Mean	0.64	284	299	--	0.71	0.65	0.69	17
Stand. Dev.	0.01	2	1	--	0.03	0.02	0.01	2
02ELUC4	1.27	270	287	<2	1.33	0.61	0.66	17
02ELUC5	1.26	277	283	2	1.29	0.62	0.65	17
02ELUC6	1.26	278	286	<2	1.29	0.63	0.65	17
Mean	1.26	275	285	2	1.30	0.62	0.66	17
Stand. Dev.	0.01	4	2	--	0.02	0.01	0.01	--
02ELMC4	1.02	337	356	2	1.66	0.61	0.65	15
02ELMC5	1.00	341	360	2	1.65	0.61	0.63	16
02ELMC6	0.99	353	353	2	1.64	0.62	0.63	15
Mean	1.00	344	356	2	1.65	0.61	0.63	15
Stand. Dev.	0.02	8	4	--	0.01	0.01	0.01	1
02ELLC4	0.87	348	342	<2	1.32	0.66	0.66	16
02ELLC5	0.88	333	353	<2	1.44	0.65	0.68	16
02ELLC6	0.91	342	348	<2	1.44	0.67	0.69	12
Mean	0.89	341	348	--	1.40	0.66	0.68	15
Stand. Dev.	0.02	8	6	--	0.07	0.01	0.02	2

Table 5. Analytical results for the 2002 composite soil samples, Deer Trail, CO Study Area.—Continued

Field No.	ICPMS Nb, ppm	ICP40 Nd, ppm	ICPMS Nd, ppm	ICP40 Ni, ppm	ICPMS Ni, ppm	ICP40 P, %	ICPMS P, %	ICP40 Pb, ppm
02ARUC4	10	27	32	14	14	0.05	0.05	12
02ARUC5	11	28	33	14	15	0.05	0.06	12
02ARUC6	10	29	32	14	14	0.05	0.05	13
Mean	10	28	32	14	14	0.05	0.06	12
Stand. Dev. ^{##}	--	1	--	--	--	--	--	1
02ARMC4	12	30	38	15	16	0.06	0.06	11
02ARMC5	12	30	35	16	16	0.06	0.06	12
02ARMC6	13	30	38	15	16	0.06	0.06	11
Mean	12	30	37	15	16	0.06	0.06	11
Stand. Dev.	--	--	1	1	--	--	--	1
02ARLC4	11	27	34	15	14	0.05	0.05	11
02ARLC5	9	28	34	14	14	0.05	0.05	10
02ARLC6	11	28	36	15	14	0.05	0.05	11
Mean	10	28	35	15	14	0.05	0.05	11
Stand. Dev.	1	1	1	1	--	--	--	1
02ELUC4	13	27	34	23	25	0.07	0.08	16
02ELUC5	13	29	35	24	24	0.07	0.08	15
02ELUC6	13	29	33	24	24	0.07	0.08	16
Mean	13	28	34	24	24	0.07	0.08	16
Stand. Dev.	--	1	1	1	--	--	--	1
02ELMC4	12	28	33	22	23	0.08	0.09	18
02ELMC5	12	27	31	24	23	0.08	0.09	18
02ELMC6	12	28	32	23	23	0.08	0.08	18
Mean	12	28	32	23	23	0.08	0.09	18
Stand. Dev.	--	1	1	1	--	--	--	--
02ELLC4	14	29	40	20	19	0.07	0.07	16
02ELLC5	13	28	33	20	20	0.07	0.07	15
02ELLC6	13	28	33	20	20	0.07	0.07	15
Mean	13	28	35	20	20	0.07	0.07	15
Stand. Dev.	1	1	4	--	--	--	--	1

Table 5. Analytical results for the 2002 composite soil samples, Deer Trail, CO Study Area.—Continued

Field No.	ICPMS Pb, ppm	ICPMS Pr, ppm	ICPMS Rb, ppm	ICPMS Re, ppm	ICPMS Sb, ppm	ICP40 Sc, ppm	ICPMS Sc, ppm	HGAAS*** Se, ppm
02ARUC4	19	8.2	84	< 0.01	0.65	6	6.5	0.4
02ARUC5	18	8.4	87	< 0.01	0.67	6	6.7	0.4
02ARUC6	18	8.1	86	< 0.01	0.63	6	6.6	0.5
Mean	18	8.2	86	--	0.65	6	6.6	0.4
Stand. Dev. ^{##}	--	0.1	2	--	0.02	--	0.1	0.1
02ARMC4	19	9.7	92	< 0.01	0.69	7	7.4	0.4
02ARMC5	19	9.1	91	< 0.01	0.67	7	7.3	0.3
02ARMC6	19	9.7	90	< 0.01	0.68	7	7.2	0.3
Mean	19	9.5	91	--	0.68	7	7.3	0.3
Stand. Dev.	--	0.4	1	--	0.01	--	0.1	0.1
02ARLC4	18	8.8	90	< 0.01	0.66	6	6.8	0.3
02ARLC5	18	8.7	89	< 0.01	0.67	6	6.7	0.4
02ARLC6	18	9.1	90	< 0.01	0.63	6	6.7	0.4
Mean	18	8.9	90	--	0.65	6	6.7	0.4
Stand. Dev.	--	0.2	--	--	0.02	--	0.1	0.1
02ELUC4	26	8.6	111	< 0.01	1.01	9	10.2	0.9
02ELUC5	25	8.8	110	< 0.01	1.01	10	10.0	0.9
02ELUC6	25	8.5	110	< 0.01	0.99	10	10.0	0.9
Mean	25	8.6	110	--	1.00	10	10.1	0.9
Stand. Dev.	--	0.1	1	--	0.01	1	0.1	--
02ELMC4	28	8.4	104	< 0.01	1.14	8	8.9	1.0
02ELMC5	28	7.9	102	< 0.01	1.14	8	8.8	1.0
02ELMC6	27	8.2	103	< 0.01	1.12	8	8.6	1.0
Mean	28	8.2	103	--	1.13	8	8.8	1.0
Stand. Dev.	1	0.3	1	--	0.01	--	0.1	--
02ELLC4	24	10.2	98	< 0.01	0.93	8	8.0	0.9
02ELLC5	24	8.5	100	< 0.01	0.98	7	8.1	0.8
02ELLC6	24	8.6	101	< 0.01	1.00	8	8.1	0.8
Mean	24	9.1	99	--	0.97	8	8.0	0.8
Stand. Dev.	--	1.0	2	--	0.04	1	0.1	0.1

Table 5. Analytical results for the 2002 composite soil samples, Deer Trail, CO Study Area.—Continued

Field No.	ICPMS Se, ppm	ICPMS Sm, ppm	ICP40 Sn, ppm	ICPMS Sn, ppm	ICP40 Sr, ppm	ICPMS Sr, ppm	ICP40 Ta, ppm	ICPMS Tb, ppm
02ARUC4	< 0.5	4.8	<50	1.7	143	130	<40	0.62
02ARUC5	< 0.5	5.0	<50	1.8	143	137	<40	0.62
02ARUC6	< 0.5	4.8	<50	1.8	136	136	<40	0.61
Mean	--	4.9	--	1.8	141	134	--	0.62
Stand. Dev. ^{##}	--	0.1	--	0.1	4	4	--	0.01
02ARMC4	< 0.5	5.7	<50	2.1	163	162	<40	0.71
02ARMC5	< 0.5	5.4	<50	2.1	162	161	<40	0.68
02ARMC6	< 0.5	5.7	<50	2.2	166	162	<40	0.71
Mean	--	5.6	--	2.1	164	162	--	0.70
Stand. Dev.	--	0.2	--	--	2	1	--	0.02
02ARLC4	< 0.5	5.1	<50	1.8	140	144	<40	0.66
02ARLC5	< 0.5	5.2	<50	1.7	139	143	<40	0.65
02ARLC6	< 0.5	5.4	<50	1.8	143	145	<40	0.66
Mean	--	5.2	--	1.8	141	144	--	0.65
Stand. Dev.	--	0.1	--	0.1	2	1	--	0.01
02ELUC4	< 0.5	5.2	<50	2.6	130	137	<40	0.71
02ELUC5	< 0.5	5.4	<50	2.6	133	135	<40	0.73
02ELUC6	< 0.5	5.2	<50	2.5	132	135	<40	0.71
Mean	--	5.3	--	2.5	132	136	--	0.72
Stand. Dev.	--	0.1	--	--	2	1	--	0.01
02ELMC4	0.6	5.2	<50	2.6	144	150	<40	0.71
02ELMC5	0.5	5.0	<50	2.5	145	147	<40	0.67
02ELMC6	< 0.5	5.0	<50	2.5	147	147	<40	0.69
Mean	0.5	5.1	--	2.5	145	148	--	0.69
Stand. Dev.	--	0.1	--	0.1	2	2	--	0.02
02ELLC4	< 0.5	5.9	<50	2.1	174	172	<40	0.73
02ELLC5	< 0.5	5.2	<50	2.2	168	176	<40	0.70
02ELLC6	< 0.5	5.3	<50	2.2	173	178	<40	0.70
Mean	--	5.4	--	2.2	172	175	--	0.71
Stand. Dev.	--	0.4	--	0.0	3	3	--	0.02

Table 5. Analytical results for the 2002 composite soil samples, Deer Trail, CO Study Area.—Continued

Field No.	ICPMS Te, ppm	ICP40 Th, ppm	ICPMS Th, ppm	ICP40 Ti, %	ICPMS Ti, %	ICPMS Tl, ppm	ICPMS Tm, ppm	ICP40 U, ppm
02ARUC4	< 0.3	12	12	0.24	0.26	0.5	0.39	<100
02ARUC5	< 0.3	12	12	0.24	0.27	0.5	0.39	<100
02ARUC6	< 0.3	13	12	0.24	0.26	0.6	0.39	<100
Mean	--	12	12	0.24	0.26	0.5	0.39	--
Stand. Dev. ^{##}	--	1	--	--	0.01	--	--	--
02ARMC4	< 0.3	13	15	0.25	0.30	0.6	0.46	<100
02ARMC5	< 0.3	13	13	0.25	0.29	0.6	0.43	<100
02ARMC6	< 0.3	13	15	0.26	0.30	0.6	0.43	<100
Mean	--	13	14	0.26	0.30	0.6	0.44	--
Stand. Dev.	--	--	1	0.01	0.01	--	0.02	--
02ARLC4	< 0.3	12	13	0.24	0.28	0.6	0.43	<100
02ARLC5	< 0.3	12	13	0.23	0.27	0.6	0.42	<100
02ARLC6	< 0.3	11	14	0.24	0.28	0.6	0.42	<100
Mean	--	12	14	0.24	0.28	0.6	0.42	--
Stand. Dev.	--	1	1	0.01	0.01	--	0.01	--
02ELUC4	< 0.3	11	13	0.28	0.35	0.7	0.50	<100
02ELUC5	< 0.3	12	14	0.29	0.33	0.7	0.48	<100
02ELUC6	< 0.3	12	13	0.29	0.34	0.7	0.47	<100
Mean	--	12	13	0.29	0.34	0.7	0.48	--
Stand. Dev.	--	1	--	0.01	0.01	--	0.02	--
02ELMC4	< 0.3	11	13	0.26	0.29	0.6	0.47	<100
02ELMC5	< 0.3	11	13	0.26	0.31	0.6	0.46	<100
02ELMC6	< 0.3	11	13	0.26	0.29	0.6	0.49	<100
Mean	--	11	13	0.26	0.30	0.6	0.47	--
Stand. Dev.	--	--	--	--	0.01	--	0.02	--
02ELLC4	< 0.3	12	15	0.26	0.29	0.6	0.48	<100
02ELLC5	< 0.3	11	13	0.26	0.31	0.6	0.47	<100
02ELLC6	< 0.3	11	14	0.25	0.29	0.6	0.46	<100
Mean	--	11	14	0.26	0.29	0.6	0.47	--
Stand. Dev.	--	1	1	--	0.01	0.0	0.01	--

Table 5. Analytical results for the 2002 composite soil samples, Deer Trail, CO Study Area.—Continued

Field No.	ICPMS U, ppm	ICP40 V, ppm	ICPMS V, ppm	ICPMS W, ppm	ICP40 Y, ppm	ICPMS Y, ppm	ICP40 Yb, ppm	ICPMS Yb, ppm
02ARUC4	2.6	70	61	< 1	19	22	2	2.4
02ARUC5	2.6	70	63	< 1	20	23	2	2.4
02ARUC6	2.6	69	61	< 1	20	22	2	2.4
Mean	2.6	70	62	--	20	23	2	2.4
Stand. Dev. ^{##}	--	1	1	--	1	--	--	0.0
02ARMC4	3.1	73	67	1	21	28	2	2.8
02ARMC5	3.0	73	66	< 1	21	25	2	2.7
02ARMC6	3.0	73	65	1	21	25	2	2.8
Mean	3.0	73	66	1	21	26	2	2.7
Stand. Dev.	0.1	--	1	--	--	2	--	0.1
02ARLC4	2.7	66	62	< 1	19	24	2	2.6
02ARLC5	2.7	66	61	< 1	19	24	2	2.5
02ARLC6	2.7	69	61	< 1	20	26	2	2.7
Mean	2.7	67	61	--	19	25	2	2.6
Stand. Dev.	--	2	--	--	1	1	--	0.1
02ELUC4	3.2	108	103	2	22	28	2	3.0
02ELUC5	3.2	112	100	2	23	30	2	2.9
02ELUC6	3.1	113	100	1	23	27	2	3.0
Mean	3.2	111	101	2	23	28	2	3.0
Stand. Dev.	0.1	3	2	1	1	2	--	0.1
02ELMC4	3.7	100	93	1	22	27	2	2.8
02ELMC5	3.5	103	91	1	22	26	2	2.8
02ELMC6	3.6	101	90	2	22	27	2	2.9
Mean	3.6	101	91	1	22	27	2	2.8
Stand. Dev.	0.1	2	1	1	--	--	--	--
02ELLC4	3.5	90	79	1	22	27	2	2.7
02ELLC5	3.3	88	80	1	21	27	2	2.8
02ELLC6	3.5	89	81	1	22	27	2	2.7
Mean	3.4	89	80	1	22	27	2	2.7
Stand. Dev.	0.1	1	1	--	1	--	--	--

Table 5. Analytical results for the 2002 composite soil samples, Deer Trail, CO Study Area.—Continued

Field No.	ICP40 Zn, ppm	ICPMS Zn, ppm
02ARUC4	55	54
02ARUC5	54	56
02ARUC6	54	55
Mean	54	55
Stand. Dev. ^{##}	1	1
02ARMC4	57	60
02ARMC5	62	58
02ARMC6	57	59
Mean	59	59
Stand. Dev.	3	1
02ARLC4	52	54
02ARLC5	49	53
02ARLC6	55	54
Mean	52	54
Stand. Dev.	3	1
02ELUC4	82	92
02ELUC5	83	90
02ELUC6	86	90
Mean	84	91
Stand. Dev.	2	1
02ELMC4	83	94
02ELMC5	85	92
02ELMC6	85	91
Mean	84	92
Stand. Dev.	1	2
02ELLC4	75	77
02ELLC5	72	78
02ELLC6	75	79
Mean	74	78
Stand. Dev.	2	1

Table 6. Analytical results for the 1999 individual subsamples from the Arapahoe County Middle Field, Deer Trail , CO Study Area.

	ICP10*	ICP40**	ICP40	HG-AAS [#]	ICP10	ICP40	ICP10	ICP40	ICP40
Field No.	Ag, ppm	Ag, ppm	Al, %	As, ppm	As, ppm	As, ppm	Au, ppm	Au, ppm	Ba, ppm
99ARM01	<0.08	<2	6.20	9.4	5	13	<0.1	<8	655
99ARM02	<0.08	<2	6.04	8.3	5	11	<0.1	<8	643
99ARM03	<0.08	<2	5.66	12.2	5	<10	<0.1	<8	621
99ARM04	<0.08	<2	5.97	6.7	4	<10	<0.1	<8	654
99ARM05	<0.08	<2	5.77	7.9	4	<10	<0.1	<8	669
99ARM06	<0.08	<2	5.30	8.4	5	<10	<0.1	<8	615
99ARM07	<0.08	<2	5.63	9.1	5	11	<0.1	<8	657
99ARM08	<0.08	<2	5.81	8.4	5	<10	<0.1	<8	666
99ARM09	<0.08	<2	5.67	8.3	6	<10	<0.1	<8	637
99ARM10	<0.08	<2	5.84	9.0	5	10	<0.1	<8	641
99ARM11	<0.08	<2	6.06	8.3	5	<10	<0.1	<8	656
99ARM12	<0.08	<2	6.07	9.8	5	13	0.2	<8	670
99ARM13	<0.08	<2	6.55	7.8	5	<10	<0.1	<8	675
99ARM14	<0.08	<2	6.05	7.9	5	<10	<0.1	<8	656
99ARM15	<0.08	<2	6.01	8.5	4	<10	<0.1	<8	669
99ARM16	<0.08	<2	5.92	8.5	4	13	<0.1	<8	661
99ARM17	<0.08	<2	5.83	6.7	4	12	<0.1	<8	663
99ARM18	<0.08	<2	6.09	8.1	6	<10	<0.1	<8	637
99ARM19	<0.08	<2	5.94	7.4	6	<10	<0.1	<8	628
99ARM20	<0.08	<2	6.29	7.7	6	<10	<0.1	<8	682
99ARM21	<0.08	<2	6.28	7.8	5	11	<0.1	<8	642
99ARM22	<0.08	<2	6.44	6.8	5	11	<0.1	<8	646
99ARM23	<0.08	<2	6.01	9.0	7	13	<0.1	<8	600
99ARM24	<0.08	<2	6.32	6.9	5	11	<0.1	<8	669
99ARM25	<0.08	<2	6.20	8.0	8	<10	<0.1	<8	614
99ARM26	<0.08	<2	5.92	7.7	6	12	<0.1	<8	636
99ARM27	<0.08	<2	6.24	8.0	7	14	<0.1	<8	594
99ARM28	<0.08	<2	5.93	7.1	5	11	<0.1	<8	619
99ARM29	<0.08	<2	6.53	7.9	6	<10	<0.1	<8	653
99ARM30	<0.08	<2	6.02	9.9	7	<10	<0.1	<8	617
99ARM31	<0.08	<2	5.93	7.7	6	<10	<0.1	<8	633
99ARM32	<0.08	<2	5.41	9.8	6	12	<0.1	<8	606
99ARM33	<0.08	<2	5.28	7.7	8	<10	<0.1	<8	590
99ARM34	<0.08	<2	5.96	7.5	6	<10	<0.1	<8	638
99ARM35	<0.08	<2	5.17	8.2	6	10	<0.1	<8	572
99ARM36	<0.08	<2	5.73	7.2	5	11	<0.1	<8	667
Mean	<0.08	<2	5.94	8.2	5	12	<0.1	<8	640
Stand. Dev. ^{##}	-- ^{###}	--	0.33	1.1	1	1	--	--	27
Composite Sample	ICP10 Ag, ppm	ICP40 Ag, ppm	ICP40 Al, %	HG-AAS As, ppm	ICP10 As, ppm	ICP40 As, ppm	ICP10 Au, ppm	ICP40 Au, ppm	ICP40 Ba, ppm
99ARM01C	<0.08	<2	5.83	6.7	5.0	<10	<0.1	<8	671
99ARM02C	<0.08	<2	5.86	6.5	5.0	14	<0.1	<8	664
99ARM03C	<0.08	<2	5.91	6.6	6.0	<10	<0.1	<8	674
99ARM04C	<0.08	<2	5.84	6.8	5.0	<10	<0.1	<8	667
Mean	<0.08	<2	5.86	6.7	5.3	--	<0.1	<8	669
Stand. Dev. ^{##}	--	--	0.04	0.1	0.5	--	--	--	4

* - ICP–AES determination after a total, four-acid digestion

** - ICP–MS determination after a total, four-acid digestion

*** - Cold Vapor – Atomic Absorption Spectrometry

[#] - Hydride Generation – Atomic Absorption Spectrometry

^{##} - Standard Deviation

^{###} - Not Determined

Table 6. Analytical results for the 1999 individual subsamples from the Arapahoe County Middle Field, Deer Trail , CO Study Area.—Continued

Field No.	ICP40 Be, ppm	ICP10 Bi, ppm	ICP40 Bi, ppm	ICP40 Ca, %	ICP10 Cd, ppm	ICP40 Cd, ppm	ICP40 Ce, ppm	ICP40 Co, ppm	ICP40 Cr, ppm
99ARM01	2	<1	<50	0.96	0.26	<2	95	9	60
99ARM02	2	<1	<50	2.49	0.26	<2	86	10	84
99ARM03	2	<1	<50	4.59	0.28	<2	83	9	61
99ARM04	2	<1	<50	4.06	0.26	<2	86	10	42
99ARM05	2	<1	<50	0.94	0.22	<2	102	9	43
99ARM06	2	<1	<50	2.06	0.20	<2	80	9	43
99ARM07	2	<1	<50	0.98	0.19	<2	91	9	51
99ARM08	2	<1	<50	1.11	0.25	<2	102	9	45
99ARM09	2	<1	<50	4.88	0.26	<2	85	10	76
99ARM10	2	<1	<50	4.94	0.27	<2	81	11	59
99ARM11	2	<1	<50	3.76	0.26	<2	86	9	88
99ARM12	2	<1	<50	0.76	0.26	<2	96	10	54
99ARM13	2	<1	<50	0.73	0.26	<2	89	12	52
99ARM14	2	<1	<50	3.63	0.24	<2	94	9	94
99ARM15	2	<1	<50	4.01	0.26	<2	86	10	39
99ARM16	2	<1	<50	4.18	0.26	<2	91	10	41
99ARM17	2	<1	<50	4.93	0.24	<2	92	10	47
99ARM18	2	<1	<50	1.88	0.28	<2	89	9	83
99ARM19	2	<1	<50	4.67	0.25	<2	103	10	75
99ARM20	2	<1	<50	4.38	0.27	<2	96	9	63
99ARM21	2	<1	<50	4.33	0.26	<2	93	10	60
99ARM22	2	<1	<50	3.89	0.28	<2	103	11	67
99ARM23	2	<1	<50	2.52	0.23	<2	85	9	44
99ARM24	2	<1	<50	0.72	0.22	<2	104	9	72
99ARM25	2	<1	<50	0.76	0.23	<2	98	7	47
99ARM26	2	<1	<50	3.37	0.26	<2	91	9	36
99ARM27	2	<1	<50	2.13	0.24	<2	94	10	47
99ARM28	2	<1	<50	3.55	0.26	<2	103	9	83
99ARM29	2	<1	<50	3.44	0.26	<2	100	10	52
99ARM30	2	<1	<50	4.88	0.29	<2	94	9	86
99ARM31	2	<1	<50	3.83	0.27	<2	97	9	49
99ARM32	1	<1	<50	1.91	0.22	<2	75	7	81
99ARM33	1	<1	<50	2.14	0.26	<2	91	7	42
99ARM34	2	<1	<50	2.85	0.26	<2	111	9	69
99ARM35	1	<1	<50	3.89	0.23	<2	87	9	56
99ARM36	2	<1	<50	0.83	0.21	<2	94	8	62
Mean	2	<1	<50	2.92	0.25	<2	93	9	60
Stand. Dev. ^{##}	0.3	--	--	1.49	0.02	--	8	1	16
Composite Sample	ICP40 Be, ppm	ICP10 Bi, ppm	ICP40 Bi, ppm	ICP40 Ca, %	ICP10 Cd, ppm	ICP40 Cd, ppm	ICP40 Ce, ppm	ICP40 Co, ppm	ICP40 Cr, ppm
99ARM01C	2	<1	<50	2.90	0.27	<2	94	9	39
99ARM02C	2	<1	<50	2.91	0.28	<2	87	9	48
99ARM03C	2	<1	<50	2.92	0.27	<2	91	10	73
99ARM04C	2	<1	<50	2.90	0.30	<2	88	10	40
Mean	2	<1	<50	2.91	0.28	<2	90	10	50
Stand. Dev. ^{##}	--	--	--	0.01	0.01	--	3	1	16

Table 6. Analytical results for the 1999 individual subsamples from the Arapahoe County Middle Field, Deer Trail , CO Study Area.—Continued

Field No.	ICP10 Cu, ppm	ICP40 Cu, ppm	ICP40 Eu, ppm	ICP40 Fe, %	ICP40 Ga, ppm	CV-AAS*** Hg, ppm	ICP40 Ho, ppm	ICP40 K, %	ICP40 La, ppm
99ARM01	14.4	16	<2	2.52	15	0.02	<4	2.17	49
99ARM02	17.2	17	<2	2.41	15	0.02	<4	2.05	44
99ARM03	13.2	17	<2	2.24	14	<0.02	<4	1.97	43
99ARM04	14.0	19	<2	2.35	16	<0.02	<4	2.03	46
99ARM05	10.7	13	<2	2.30	16	<0.02	<4	2.09	53
99ARM06	11.6	14	<2	2.12	13	<0.02	<4	1.87	44
99ARM07	11.7	21	<2	2.28	15	<0.02	<4	2.03	48
99ARM08	12.3	15	<2	2.34	15	0.02	<4	2.05	51
99ARM09	13.6	19	<2	2.28	14	0.02	<4	1.89	43
99ARM10	13.3	19	<2	2.33	14	<0.02	<4	1.94	43
99ARM11	13.9	25	<2	2.44	16	<0.02	<4	2.05	46
99ARM12	13.6	17	<2	2.54	14	<0.02	<4	2.07	50
99ARM13	14.1	19	<2	2.72	14	<0.02	<4	2.15	48
99ARM14	13.8	19	<2	2.42	15	<0.02	<4	2.03	49
99ARM15	14.2	21	<2	2.40	15	<0.02	<4	2.02	44
99ARM16	13.4	20	<2	2.36	16	<0.02	<4	1.98	45
99ARM17	13.0	19	2	2.32	14	<0.02	<4	1.94	45
99ARM18	13.2	16	<2	2.36	16	0.03	<4	2.16	44
99ARM19	12.5	19	<2	2.29	16	<0.02	<4	2.08	47
99ARM20	13.6	20	<2	2.44	16	0.02	<4	2.13	44
99ARM21	12.8	19	<2	2.44	16	0.02	<4	2.16	44
99ARM22	13.8	20	3	2.53	17	<0.02	<4	2.18	49
99ARM23	13.2	20	<2	2.38	16	0.03	<4	2.12	41
99ARM24	10.8	14	<2	2.45	18	0.02	<4	2.34	49
99ARM25	11.9	18	<2	2.47	17	0.02	<4	2.19	49
99ARM26	12.5	17	<2	2.24	15	0.02	<4	2.17	44
99ARM27	13.4	17	2	2.57	16	0.03	<4	2.08	45
99ARM28	12.1	15	<2	2.30	16	<0.02	<4	2.14	48
99ARM29	13.9	18	2	2.54	17	0.02	<4	2.24	47
99ARM30	13.9	19	<2	2.31	16	0.02	<4	2.07	45
99ARM31	12.8	18	<2	2.28	16	0.02	<4	2.09	44
99ARM32	10.5	14	<2	2.03	14	0.02	<4	2.08	36
99ARM33	10.8	14	<2	2.03	14	0.02	<4	2.07	42
99ARM34	12.1	18	2	2.36	15	0.02	<4	2.24	52
99ARM35	11.9	18	<2	2.04	14	0.02	<4	2.01	42
99ARM36	11.4	15	<2	2.33	15	<0.02	<4	2.24	49
Mean	12.9	18	2	2.35	15	0.02	<4	2.09	46
Stand. Dev. ^{##}	1.3	3	--	0.15	1	0.004	--	0.10	3
Composite Sample	ICP10 Cu, ppm	ICP40 Cu, ppm	ICP40 Eu, ppm	ICP40 Fe, %	ICP40 Ga, ppm	CV-AAS*** Hg, ppm	ICP40 Ho, ppm	ICP40 K, %	ICP40 La, ppm
99ARM01C	13.6	17	<2	2.32	15	<0.02	<4	2.07	49
99ARM02C	13.9	17	<2	2.33	15	<0.02	<4	2.07	47
99ARM03C	13.8	18	<2	2.33	16	<0.02	<4	2.07	49
99ARM04C	14.2	17	<2	2.31	15	<0.02	<4	2.04	48
Mean	13.9	17	<2	2.32	15	<0.02	<4	2.06	48
Stand. Dev. ^{##}	0.3	1	--	0.01	1	--	--	0.01	1

Table 6. Analytical results for the 1999 individual subsamples from the Arapahoe County Middle Field, Deer Trail , CO Study Area.—Continued

Field No.	ICP40 Li, ppm	ICP40 Mg, %	ICP40 Mn, ppm	ICP10 Mo, ppm	ICP40 Mo, ppm	ICP40 Na, %	ICP40 Nb, ppm	ICP40 Nd, ppm	ICP40 Ni, ppm
99ARM01	26	0.76	387	0.6	<2	0.72	19	43	16
99ARM02	26	0.85	348	0.7	<2	0.72	17	38	16
99ARM03	26	0.85	316	0.5	<2	0.69	14	38	15
99ARM04	28	0.93	332	0.5	<2	0.73	12	37	16
99ARM05	22	0.63	344	0.5	<2	0.77	18	47	14
99ARM06	22	0.57	271	0.4	<2	0.59	14	35	13
99ARM07	22	0.63	328	0.6	<2	0.72	17	42	14
99ARM08	23	0.68	343	0.6	<2	0.74	19	43	15
99ARM09	26	0.92	312	0.6	<2	0.66	12	40	16
99ARM10	28	0.96	326	0.6	<2	0.68	15	40	15
99ARM11	28	0.97	347	0.6	<2	0.74	17	39	16
99ARM12	23	0.71	408	0.6	<2	0.72	16	45	16
99ARM13	27	0.88	420	0.6	<2	0.71	17	44	18
99ARM14	27	0.93	355	0.6	<2	0.79	18	40	16
99ARM15	28	0.99	344	0.6	<2	0.75	20	40	16
99ARM16	28	0.97	330	0.6	<2	0.73	18	40	15
99ARM17	27	0.99	327	0.6	<2	0.71	17	35	15
99ARM18	26	0.78	336	0.6	<2	0.78	15	41	15
99ARM19	27	0.90	321	0.6	<2	0.75	13	46	16
99ARM20	30	1.07	352	0.6	<2	0.82	16	39	16
99ARM21	30	1.02	345	0.7	<2	0.84	15	39	15
99ARM22	33	1.08	381	0.7	<2	0.89	16	45	16
99ARM23	26	0.75	324	0.5	<2	0.76	14	38	15
99ARM24	22	0.64	445	0.6	<2	0.86	16	49	15
99ARM25	26	0.72	337	0.6	<2	0.79	15	48	16
99ARM26	25	0.75	356	0.6	<2	0.82	15	34	14
99ARM27	29	0.81	320	0.6	<2	0.69	16	36	16
99ARM28	27	0.83	331	0.5	<2	0.84	14	41	14
99ARM29	30	0.99	368	0.7	<2	0.86	17	43	16
99ARM30	26	0.87	302	0.5	<2	0.71	13	45	17
99ARM31	28	0.91	318	0.7	<2	0.76	14	39	15
99ARM32	25	0.58	270	0.5	<2	0.64	13	35	12
99ARM33	20	0.61	294	0.5	<2	0.79	12	42	12
99ARM34	25	0.71	343	0.6	<2	0.82	15	46	15
99ARM35	23	0.69	285	0.6	<2	0.73	11	42	15
99ARM36	23	0.60	338	0.5	<2	0.81	17	43	14
Mean	26	0.82	339	0.6	<2	0.75	15	41	15
Stand. Dev. ^{##}	3	0.15	37	0.1	--	0.07	2	4	1
Composite Sample	ICP40 Li, ppm	ICP40 Mg, %	ICP40 Mn, ppm	ICP10 Mo, ppm	ICP40 Mo, ppm	ICP40 Na, %	ICP40 Nb, ppm	ICP40 Nd, ppm	ICP40 Ni, ppm
99ARM01C	24	0.81	339	0.6	2	0.73	13	47	15
99ARM02C	23	0.80	333	0.6	<2	0.73	13	44	15
99ARM03C	23	0.81	343	0.7	<2	0.73	13	38	15
99ARM04C	23	0.80	340	0.6	<2	0.71	14	36	15
Mean	23	0.81	339	0.6	--	0.73	13	41	15
Stand. Dev. ^{##}	1	--	4	--	--	0.01	1	5	--

Table 6. Analytical results for the 1999 individual subsamples from the Arapahoe County Middle Field, Deer Trail , CO Study Area.—Continued

Field No.	ICP40 P, %	ICP10 Pb, ppm	ICP40 Pb, ppm	ICP10 Sb, ppm	ICP40 Sc, ppm	HG-AAS Se, ppm	ICP40 Sn, ppm	ICP40 Sr, ppm	ICP40 Ta, ppm
99ARM01	0.06	14	19	<1	9	0.4	<50	148	<40
99ARM02	0.07	14	21	1	9	0.4	<50	160	<40
99ARM03	0.07	12	18	1	8	0.4	<50	166	<40
99ARM04	0.07	13	18	1	8	0.4	<50	182	<40
99ARM05	0.06	12	20	<1	8	0.3	<50	154	<40
99ARM06	0.05	13	18	<1	7	0.4	<50	137	<40
99ARM07	0.06	12	20	<1	8	0.3	<50	146	<40
99ARM08	0.06	14	19	<1	9	0.3	<50	153	<40
99ARM09	0.07	13	15	<1	8	0.4	<50	174	<40
99ARM10	0.07	13	17	<1	8	0.4	<50	184	<40
99ARM11	0.07	13	19	1	9	0.3	<50	181	<40
99ARM12	0.06	14	22	<1	9	0.4	<50	145	<40
99ARM13	0.07	14	21	<1	10	0.4	<50	150	<40
99ARM14	0.08	12	17	<1	9	0.3	<50	179	<40
99ARM15	0.07	13	19	<1	9	0.3	<50	186	<40
99ARM16	0.07	13	16	<1	9	0.3	<50	193	<40
99ARM17	0.07	12	16	<1	8	0.3	<50	193	<40
99ARM18	0.06	13	20	<1	8	0.3	<50	158	<40
99ARM19	0.06	12	19	<1	8	0.3	<50	183	<40
99ARM20	0.07	13	20	<1	9	0.4	<50	203	<40
99ARM21	0.06	12	21	<1	9	0.4	<50	183	<40
99ARM22	0.07	13	20	<1	9	0.3	<50	189	<40
99ARM23	0.06	13	18	<1	8	0.4	<50	159	<40
99ARM24	0.05	13	20	<1	9	0.4	<50	154	<40
99ARM25	0.05	14	20	<1	9	0.4	<50	145	<40
99ARM26	0.07	13	21	<1	8	0.4	<50	172	<40
99ARM27	0.05	14	20	<1	9	0.3	<50	137	<40
99ARM28	0.07	13	19	<1	8	0.3	<50	175	<40
99ARM29	0.07	14	20	<1	9	0.4	<50	192	<40
99ARM30	0.07	12	18	<1	8	0.4	<50	173	<40
99ARM31	0.06	13	19	<1	8	0.4	<50	187	<40
99ARM32	0.04	13	19	<1	7	0.3	<50	132	<40
99ARM33	0.06	13	17	<1	7	0.3	<50	153	<40
99ARM34	0.07	14	20	<1	8	0.3	<50	165	<40
99ARM35	0.07	12	20	<1	7	0.4	<50	154	<40
99ARM36	0.06	14	19	<1	8	0.4	<50	145	<40
Mean	0.06	13	19	--	8	0.4	<50	166	<40
Stand. Dev. ^{##}	0.01	1	2	--	1	0.1	--	19	--
Composite Sample	ICP40 P, %	ICP10 Pb, ppm	ICP40 Pb, ppm	ICP10 Sb, ppm	ICP40 Sc, ppm	HG-AAS Se, ppm	ICP40 Sn, ppm	ICP40 Sr, ppm	ICP40 Ta, ppm
99ARM01C	0.07	13	22	<1	8	0.4	<50	162	<40
99ARM02C	0.06	13	17	<1	8	0.4	<50	163	<40
99ARM03C	0.07	13	26	<1	8	0.4	<50	164	<40
99ARM04C	0.06	14	19	<1	8	0.3	<50	162	<40
Mean	0.06	13	21	<1	8	0.4	<50	163	<40
Stand. Dev. ^{##}	--	1	4	--	--	--	--	1	--

Table 6. Analytical results for the 1999 individual subsamples from the Arapahoe County Middle Field, Deer Trail , CO Study Area.—Continued

Field No.	ICP40 Th, ppm	ICP40 Ti, %	ICP40 U, ppm	ICP40 V, ppm	ICP40 Y, ppm	ICP40 Yb, ppm	ICP10 Zn, ppm	ICP40 Zn, ppm
99ARM01	17	0.35	<100	84	21	3	58.4	64
99ARM02	17	0.34	<100	87	21	2	50.0	60
99ARM03	12	0.30	<100	82	20	2	50.6	56
99ARM04	19	0.31	<100	81	21	2	51.7	58
99ARM05	18	0.35	<100	78	22	3	47.1	56
99ARM06	16	0.30	<100	76	19	2	46.9	54
99ARM07	17	0.33	<100	77	21	2	46.8	57
99ARM08	17	0.35	<100	79	22	3	49.5	59
99ARM09	13	0.33	<100	80	20	2	47.1	57
99ARM10	13	0.31	<100	82	20	2	49.6	59
99ARM11	18	0.34	<100	85	21	2	51.6	62
99ARM12	16	0.35	<100	83	22	3	54.5	65
99ARM13	17	0.35	<100	91	23	3	58.7	72
99ARM14	17	0.34	<100	84	22	2	47.9	60
99ARM15	15	0.31	<100	84	20	2	50.9	60
99ARM16	16	0.32	<100	82	20	2	49.8	59
99ARM17	14	0.33	<100	82	20	2	48.6	58
99ARM18	18	0.31	<100	80	24	3	48.6	61
99ARM19	19	0.32	<100	83	24	3	43.4	60
99ARM20	19	0.33	<100	86	25	3	48.3	64
99ARM21	16	0.32	<100	85	24	3	48.2	64
99ARM22	19	0.34	<100	86	26	3	52.7	65
99ARM23	15	0.30	<100	82	22	2	49.1	63
99ARM24	21	0.34	<100	78	26	3	47.1	68
99ARM25	20	0.32	<100	81	25	3	49.4	65
99ARM26	14	0.32	<100	81	24	3	45.4	60
99ARM27	16	0.32	<100	87	25	3	54.7	70
99ARM28	17	0.33	<100	79	25	3	45.2	59
99ARM29	15	0.33	<100	85	25	3	48.9	68
99ARM30	16	0.31	<100	85	24	3	45.5	61
99ARM31	17	0.30	<100	81	24	3	44.3	59
99ARM32	13	0.27	<100	72	20	2	39.5	55
99ARM33	17	0.30	<100	68	22	2	34.7	53
99ARM34	19	0.34	<100	82	26	3	42.3	63
99ARM35	17	0.26	<100	74	21	2	42.8	55
99ARM36	17	0.35	<100	76	21	3	48.3	58
Mean	17	0.32	<100	81	22	3	48.3	61
Stand. Dev. ^{##}	2	0.02	--	5	2	1	4.7	4
Composite Sample	ICP40 Th, ppm	ICP40 Ti, %	ICP40 U, ppm	ICP40 V, ppm	ICP40 Y, ppm	ICP40 Yb, ppm	ICP10 Zn, ppm	ICP40 Zn, ppm
99ARM01C	21	0.33	<100	82	21	2	52.7	63
99ARM02C	19	0.33	<100	80	20	2	53.0	61
99ARM03C	20	0.33	<100	82	21	2	52.2	67
99ARM04C	18	0.31	<100	82	20	2	54.4	61
Mean	20	0.33	<100	82	21	2	53.1	63
Stand. Dev. ^{##}	1	0.01	--	1	1	--	0.9	3

Table 7. Analytical results for the 2000 individual subsamples from the Arapahoe County Middle Field, Deer Trail, CO Study Area.

Field No.	ICP40* Ag, ppm	ICPMS** Ag, ppm	ICP40 Al, %	ICPMS Al, %	HG-AAS# As, ppm	ICP40 As, ppm	ICPMS As, ppm	ICP40 Au, ppm
00ARM01	<2	0.21	5.42	5.6	6.8	13	6.9	<8
00ARM02	<2	0.60	5.25	5.4	6.9	16	6.4	<8
00ARM03	<2	0.42	6.14	6.6	7.4	13	7.5	<8
00ARM04	<2	0.31	6.17	6.4	7.0	12	6.7	<8
00ARM05	<2	0.28	5.96	6.4	8.1	15	7.7	<8
00ARM06	<2	0.29	6.42	6.8	7.8	12	7.3	<8
00ARM07	<2	0.30	6.22	6.9	7.9	12	7.5	<8
00ARM08	<2	0.28	6.26	6.6	7.4	11	7.0	<8
00ARM09	<2	0.26	6.07	6.5	7.0	12	7.1	<8
00ARM10	<2	0.27	5.95	6.6	7.9	12	7.8	<8
00ARM11	<2	0.24	5.86	6.4	9.5	<10	8.4	<8
00ARM12	<2	0.25	5.73	6.5	7.5	15	7.2	<8
00ARM13	<2	0.24	5.65	6.3	7.7	15	7.5	<8
00ARM14	<2	0.23	5.77	6.6	7.5	13	7.0	<8
00ARM15	<2	0.25	6.10	6.6	7.1	12	7.2	<8
00ARM16	<2	0.29	6.01	6.7	7.3	10	6.8	<8
00ARM17	<2	0.34	6.30	6.8	7.0	12	7.1	<8
00ARM18	<2	0.39	6.27	7.1	6.3	12	6.1	<8
00ARM19	<2	0.38	6.84	7.6	6.8	<10	6.6	<8
00ARM20	<2	0.36	5.51	6.0	9.0	14	9.5	<8
00ARM21	<2	0.34	5.76	6.3	7.2	11	7.2	<8
00ARM22	<2	0.32	6.16	6.8	6.9	<10	6.3	<8
00ARM23	<2	0.28	5.75	6.2	7.6	11	7.2	<8
00ARM24	<2	0.28	6.06	6.5	8.8	12	8.8	<8
00ARM25	<2	0.24	5.76	6.1	7.9	16	7.5	<8
00ARM26	<2	0.24	6.32	6.5	6.9	10	6.4	<8
00ARM27	<2	0.22	5.22	5.6	5.7	11	5.8	<8
00ARM28	<2	0.23	6.01	6.3	6.2	<10	5.7	<8
00ARM29	<2	0.22	5.64	6.1	7.2	14	7.2	<8
00ARM30	<2	0.22	5.98	6.4	10.1	13	9.4	<8
Mean	<2	0.29	5.95	6.4	7.5	13	7.2	<8
Stand. Dev. ##	--###	0.08	0.35	0.4	0.9	--	0.9	--

Field No.	ICP40* Ag, ppm	ICPMS** Ag, ppm	ICP40 Al, %	ICPMS Al, %	HG-AAS# As, ppm	ICP40 As, ppm	ICPMS As, ppm	ICP40 Au, ppm
00ARMC1	<2	0.15	5.85	7.3	7.7	<10	6.9	<8
00ARMC2	<2	0.16	6.09	7.4	8.2	12	6.8	<8
00ARMC3	<2	0.17	6.04	6.6	8.2	<10	5.4	<8
00ARMC4	<2	0.18	5.81	6.9	8.2	10	6.3	<8
Mean	<2	0.17	5.94	7.1	8.1	11	6.4	<8
Stand. Dev.	--	0.01	0.14	0.4	0.3	1	0.7	--

* - ICP-AES determination after a total, four acid digestion

** - ICP-MS determination after a total, four acid digestion

*** - Cold Vapor – Atomic Absorption Spectrometry

- Hydride Generation – Atomic Absorption Spectrometry

- Standard Deviation

- Not Determined

Table 7. Analytical results for the 2000 individual subsamples from the Arapahoe County Middle Field, Deer Trail, CO Study Area.—Continued

Field No.	ICPMS Au, ppm	ICP40 Ba, ppm	ICPMS Ba, ppm	ICP40 Be, ppm	ICPMS Be, ppm	ICP40 Bi, ppm	ICPMS Bi, ppm	ICP40 Ca, %
00ARM01	< 0.05	646	660	1	1.9	<50	0.4	2.21
00ARM02	< 0.05	595	630	1	1.6	<50	0.2	2.39
00ARM03	< 0.05	666	680	1	2.0	<50	0.2	0.87
00ARM04	< 0.05	663	680	1	1.7	<50	0.2	3.55
00ARM05	< 0.05	578	640	1	2.0	<50	0.2	3.88
00ARM06	< 0.05	595	630	1	2.4	<50	0.2	2.67
00ARM07	< 0.05	629	680	1	2.1	<50	0.2	0.70
00ARM08	< 0.05	636	680	1	1.9	<50	0.2	3.86
00ARM09	< 0.05	610	660	1	2.2	<50	0.2	3.73
00ARM10	< 0.05	621	680	1	1.9	<50	0.2	3.59
00ARM11	< 0.05	614	660	1	1.9	<50	0.2	0.91
00ARM12	< 0.05	616	680	1	1.6	<50	0.2	2.81
00ARM13	< 0.05	621	650	1	1.7	<50	0.1	0.78
00ARM14	< 0.05	604	700	1	2.0	<50	0.2	3.48
00ARM15	< 0.05	645	690	1	1.9	<50	0.2	4.26
00ARM16	< 0.05	628	690	1	2.1	<50	0.2	3.61
00ARM17	< 0.05	658	700	1	2.1	<50	0.2	3.56
00ARM18	< 0.05	638	700	1	2.0	<50	0.2	0.68
00ARM19	< 0.05	605	650	2	2.2	<50	0.2	0.68
00ARM20	< 0.05	546	590	1	2.0	<50	0.2	4.38
00ARM21	< 0.05	596	680	1	1.7	<50	0.2	4.18
00ARM22	< 0.05	625	690	1	2.3	<50	0.2	3.19
00ARM23	< 0.05	590	660	1	2.0	<50	0.2	5.25
00ARM24	< 0.05	611	670	1	2.3	<50	0.2	2.12
00ARM25	< 0.05	623	670	1	1.8	<50	0.1	3.61
00ARM26	< 0.05	680	710	1	2.1	<50	0.2	4.44
00ARM27	< 0.05	568	640	<1	1.5	<50	0.1	3.71
00ARM28	< 0.05	676	680	1	2.0	<50	0.2	0.75
00ARM29	< 0.05	645	660	1	2.0	<50	0.1	0.71
00ARM30	< 0.05	565	620	1	2.1	<50	0.2	2.85
Mean	< 0.05	620	667	1	2.0	<50	0.2	2.78
Stand. Dev. ^{##}	--	33	27	--	0.2	--	0.1	1.40
Field No.	ICPMS Au, ppm	ICP40 Ba, ppm	ICPMS Ba, ppm	ICP40 Be, ppm	ICPMS Be, ppm	ICP40 Bi, ppm	ICPMS Bi, ppm	ICP40 Ca, %
00ARMC1	< 0.05	581	660	1	2.0	<50	0.2	2.71
00ARMC2	< 0.05	629	660	1	2.1	<50	0.2	2.86
00ARMC3	0.20	629	650	1	2.1	<50	0.2	2.83
00ARMC4	0.08	581	660	1	2.0	<50	0.2	2.71
Mean	0.14	605	658	1	2.1	<50	0.2	2.78
Stand. Dev.	0.08	28	5	--	0.1	--	--	0.08

Table 7. Analytical results for the 2000 individual subsamples from the Arapahoe County Middle Field, Deer Trail, CO Study Area.—Continued

Field No.	ICPMS Ca, %	ICP40 Cd, ppm	ICPMS Cd, ppm	ICP40 Ce, ppm	ICPMS Ce, ppm	ICP40 Co, ppm	ICPMS Co, ppm	ICP40 Cr, ppm
00ARM01	2.4	<2	0.3	81	80	7	7.2	15
00ARM02	2.5	<2	0.2	75	74	6	6.8	14
00ARM03	0.9	<2	0.2	102	95	9	8.8	20
00ARM04	3.8	<2	0.3	95	88	9	8.8	20
00ARM05	4.3	<2	0.3	78	85	8	8.9	37
00ARM06	2.9	<2	0.3	88	82	10	9.5	118
00ARM07	0.8	<2	0.3	90	97	9	9.7	38
00ARM08	4.3	<2	0.3	80	87	9	9.2	21
00ARM09	4.1	<2	0.3	77	86	8	9.1	38
00ARM10	4.1	<2	0.3	81	89	8	9.1	19
00ARM11	1.0	<2	0.2	81	87	9	8.4	21
00ARM12	3.2	<2	0.3	86	95	7	8.7	16
00ARM13	0.8	<2	0.2	82	86	8	8.0	23
00ARM14	4.0	<2	0.3	80	93	8	8.8	17
00ARM15	4.7	<2	0.3	85	88	8	9.2	40
00ARM16	4.1	<2	0.3	89	86	8	9.1	20
00ARM17	4.0	<2	0.3	88	88	9	9.2	37
00ARM18	0.8	<2	0.3	95	97	9	11.0	38
00ARM19	0.7	<2	0.3	85	95	10	11.0	46
00ARM20	4.8	<2	0.2	74	72	8	8.5	20
00ARM21	4.6	<2	0.2	78	81	8	9.0	36
00ARM22	3.5	<2	0.2	83	94	8	9.0	26
00ARM23	5.8	<2	0.3	80	85	8	8.6	17
00ARM24	2.2	<2	0.2	82	86	8	8.8	27
00ARM25	3.8	<2	0.2	78	80	8	8.1	31
00ARM26	4.6	<2	0.2	82	86	8	8.8	18
00ARM27	4.0	<2	0.2	62	65	6	7.3	13
00ARM28	0.8	<2	0.3	91	85	8	8.9	35
00ARM29	0.7	<2	0.2	96	89	9	8.3	30
00ARM30	3.0	<2	0.2	76	79	9	9.3	27
Mean	3.0	<2	0.3	83	86	8	8.8	29
Stand. Dev. ^{##}	1.6	--	0.1	8	7	1	0.9	19
Field No.	ICPMS Ca, %	ICP40 Cd, ppm	ICPMS Cd, ppm	ICP40 Ce, ppm	ICPMS Ce, ppm	ICP40 Co, ppm	ICPMS Co, ppm	ICP40 Cr, ppm
00ARMC1	3.6	<2	0.3	79	82	8	9.4	15
00ARMC2	3.6	<2	0.3	92	86	8	9.5	37
00ARMC3	3.3	<2	0.3	86	83	8	8.7	33
00ARMC4	3.4	<2	0.3	79	87	7	8.8	16
Mean	3.5	<2	0.3	84	85	8	9.1	25
Stand. Dev.	0.2	--	--	6	2	1	0.4	11

Table 7. Analytical results for the 2000 individual subsamples from the Arapahoe County Middle Field, Deer Trail, CO Study Area.—Continued

Field No.	ICPMS Cr, ppm	ICPMS Cs, ppm	ICP40 Cu, ppm	ICPMS Cu, ppm	ICPMS Dy, ppm	ICPMS Er, ppm	ICP40 Eu, ppm	ICPMS Eu, ppm
00ARM01	35	3.5	15	10	3.9	1.9	<2	1.0
00ARM02	35	3.4	14	10	3.8	1.9	<2	1.0
00ARM03	45	4.2	17	20	4.9	2.3	<2	1.2
00ARM04	43	4.2	17	20	4.6	2.2	<2	1.1
00ARM05	44	4.3	17	20	4.4	2.2	<2	1.1
00ARM06	47	4.7	24	20	4.4	2.2	<2	1.1
00ARM07	46	4.5	20	20	4.9	2.3	<2	1.2
00ARM08	45	4.4	19	20	4.5	2.2	<2	1.1
00ARM09	44	4.3	16	20	4.4	2.1	<2	1.1
00ARM10	45	4.4	18	20	4.5	2.2	<2	1.1
00ARM11	43	4.0	17	20	4.5	2.2	<2	1.1
00ARM12	44	4.2	17	20	4.7	2.2	<2	1.1
00ARM13	42	3.9	17	20	4.3	2.1	<2	1.1
00ARM14	44	4.1	17	20	4.6	2.2	<2	1.1
00ARM15	46	4.4	17	20	4.4	2.1	<2	1.1
00ARM16	46	4.2	19	20	4.4	2.2	<2	1.1
00ARM17	48	4.3	18	20	4.4	2.2	<2	1.1
00ARM18	49	4.7	18	20	4.9	2.4	<2	1.2
00ARM19	52	5.1	19	20	4.8	2.3	<2	1.2
00ARM20	41	4.2	18	20	3.9	1.9	<2	1.0
00ARM21	42	4.2	17	20	4.4	2.1	<2	1.0
00ARM22	46	4.3	18	20	4.8	2.2	<2	1.1
00ARM23	44	4.1	17	20	4.3	2.1	<2	1.1
00ARM24	45	4.2	17	20	4.4	2.0	<2	1.1
00ARM25	41	3.9	16	20	4.1	2.0	<2	1.0
00ARM26	46	4.2	18	20	4.4	2.1	<2	1.1
00ARM27	35	3.6	14	20	3.5	1.8	<2	1.0
00ARM28	42	4.0	16	20	4.5	2.2	<2	1.1
00ARM29	42	3.9	15	20	4.4	2.1	<2	1.1
00ARM30	47	4.7	16	20	4.0	1.9	<2	1.0
Mean	44	4.2	17	19	4.4	2.1	<2	1.1
Stand. Dev. ^{##}	4	0.4	2	3	0.3	0.1	--	0.1
Field No.	ICPMS Cr, ppm	ICPMS Cs, ppm	ICP40 Cu, ppm	ICPMS Cu, ppm	ICPMS Dy, ppm	ICPMS Er, ppm	ICP40 Eu, ppm	ICPMS Eu, ppm
00ARMC1	49	4.2	16	20	4.5	2.1	<2	1.1
00ARMC2	49	4.2	18	20	4.4	2.1	<2	1.1
00ARMC3	45	4.1	18	20	4.4	2.1	<2	1.1
00ARMC4	46	4.2	16	20	4.4	2.1	<2	1.1
Mean	47	4.2	17	20	4.4	2.1	<2	1.1
Stand. Dev.	2	0.1	1	--	--	--	--	--

Table 7. Analytical results for the 2000 individual subsamples from the Arapahoe County Middle Field, Deer Trail, CO Study Area.—Continued

Field No.	ICP40 Fe, %	ICPMS Fe, %	ICP40 Ga, ppm	ICPMS Ga, ppm	ICPMS Gd, ppm	ICPMS Ge, ppm	CV-AAS*** Hg, ppm	ICP40 Ho, ppm
00ARM01	1.84	2.1	13	11	4.9	1.1	<0.02	<4
00ARM02	1.72	2.0	13	11	4.8	1.1	<0.02	<4
00ARM03	2.23	2.6	16	14	5.9	1.3	<0.02	<4
00ARM04	2.16	2.4	15	13	5.6	1.2	<0.02	<4
00ARM05	2.09	2.4	15	13	5.2	1.1	<0.02	<4
00ARM06	2.35	2.6	17	14	5.3	1.2	0.02	<4
00ARM07	2.26	2.6	15	14	6.0	1.2	0.03	<4
00ARM08	2.17	2.5	15	13	5.5	1.1	<0.02	<4
00ARM09	2.08	2.4	15	13	5.5	1.1	<0.02	<4
00ARM10	2.11	2.5	15	13	5.5	1.1	<0.02	<4
00ARM11	2.13	2.5	14	12	5.5	1.2	<0.02	<4
00ARM12	2.03	2.4	15	13	5.7	1.1	<0.02	<4
00ARM13	2.04	2.3	15	12	5.4	1.2	<0.02	<4
00ARM14	2.01	2.4	13	13	5.7	1.1	<0.02	<4
00ARM15	2.15	2.5	13	13	5.4	1.1	0.02	<4
00ARM16	2.12	2.5	15	13	5.3	1.2	0.03	<4
00ARM17	2.21	2.5	16	13	5.4	1.1	<0.02	<4
00ARM18	2.29	2.7	15	14	6.0	1.3	<0.02	<4
00ARM19	2.55	2.9	18	15	5.7	1.3	<0.02	<4
00ARM20	2.14	2.5	12	11	4.7	1.0	0.02	<4
00ARM21	2.08	2.4	14	12	5.2	1.1	<0.02	<4
00ARM22	2.16	2.5	15	13	5.6	1.1	<0.02	<4
00ARM23	1.97	2.3	14	12	5.3	1.0	<0.02	<4
00ARM24	2.19	2.5	15	12	5.5	1.2	0.02	<4
00ARM25	1.97	2.2	15	11	5.0	1.1	<0.02	<4
00ARM26	2.17	2.4	16	12	5.3	1.1	<0.02	<4
00ARM27	1.65	1.9	12	10	4.2	1.0	<0.02	<4
00ARM28	2.13	2.2	14	11	5.5	1.2	<0.02	<4
00ARM29	2.12	2.4	14	11	5.7	1.2	<0.02	<4
00ARM30	2.27	2.6	14	12	5.0	1.0	<0.02	<4
Mean	2.11	2.4	15	12	5.4	1.1	0.02	<4
Stand. Dev. ^{##}	0.17	0.2	1	1	0.4	0.1	--	--
Field No.	ICP40 Fe, %	ICPMS Fe, %	ICP40 Ga, ppm	ICPMS Ga, ppm	ICPMS Gd, ppm	ICPMS Ge, ppm	CV-AAS*** Hg, ppm	ICP40 Ho, ppm
00ARMC1	2.13	2.7	14	14	5.6	1.3	0.03	<4
00ARMC2	2.26	2.7	15	14	5.8	1.2	0.02	<4
00ARMC3	2.23	2.5	15	13	5.5	1.2	0.02	<4
00ARMC4	2.11	2.6	14	13	5.5	1.2	0.03	<4
Mean	2.18	2.6	15	14	5.6	1.2	0.03	<4
Stand. Dev.	0.07	0.1	1	1	0.1	--	0.01	--

Table 7. Analytical results for the 2000 individual subsamples from the Arapahoe County Middle Field, Deer Trail, CO Study Area.—Continued

Field No.	ICPMS Ho, ppm	ICPMS In, ppm	ICP40 K, %	ICPMS K, %	ICP40 La, ppm	ICPMS La, ppm	ICP40 Li, ppm	ICPMS Li, ppm
00ARM01	0.66	0.1	2.06	2.1	39	43	22	22
00ARM02	0.61	< 0.1	1.99	2.0	36	41	20	21
00ARM03	0.76	< 0.1	2.16	2.2	48	51	25	26
00ARM04	0.71	< 0.1	2.14	2.1	46	46	28	27
00ARM05	0.69	< 0.1	2.05	2.1	38	45	27	29
00ARM06	0.69	< 0.1	2.15	2.2	43	44	30	29
00ARM07	0.78	< 0.1	2.18	2.3	43	51	24	26
00ARM08	0.72	< 0.1	2.12	2.2	40	46	29	29
00ARM09	0.71	< 0.1	2.10	2.1	38	46	27	28
00ARM10	0.71	< 0.1	2.02	2.1	40	47	27	28
00ARM11	0.72	< 0.1	2.10	2.2	39	47	24	25
00ARM12	0.73	< 0.1	2.04	2.2	41	50	24	26
00ARM13	0.66	< 0.1	2.08	2.2	40	46	23	24
00ARM14	0.72	< 0.1	2.02	2.2	39	48	24	26
00ARM15	0.68	< 0.1	2.09	2.2	41	46	29	29
00ARM16	0.71	< 0.1	2.06	2.2	42	46	28	29
00ARM17	0.70	< 0.1	2.19	2.2	42	46	29	29
00ARM18	0.76	< 0.1	2.23	2.4	44	50	24	25
00ARM19	0.78	< 0.1	2.32	2.4	41	49	27	28
00ARM20	0.60	< 0.1	1.89	2.0	36	41	27	26
00ARM21	0.69	< 0.1	1.99	2.1	38	44	27	28
00ARM22	0.74	< 0.1	2.15	2.2	41	49	29	28
00ARM23	0.68	< 0.1	1.97	2.0	39	47	26	25
00ARM24	0.67	< 0.1	2.14	2.2	41	49	24	24
00ARM25	0.64	< 0.1	2.09	2.1	38	45	25	24
00ARM26	0.69	< 0.1	2.14	2.1	41	48	29	28
00ARM27	0.56	< 0.1	1.92	1.9	32	36	22	23
00ARM28	0.70	< 0.1	2.31	2.3	43	46	22	20
00ARM29	0.69	< 0.1	2.15	2.2	46	50	23	22
00ARM30	0.66	< 0.1	2.04	2.1	38	44	30	29
Mean	0.69	< 0.1	2.10	2.2	40	46	26	26
Stand. Dev. ^{##}	0.05	--	0.10	0.1	3	3	3	3
Field No.	ICPMS Ho, ppm	ICPMS In, ppm	ICP40 K, %	ICPMS K, %	ICP40 La, ppm	ICPMS La, ppm	ICP40 Li, ppm	ICPMS Li, ppm
00ARMC1	0.70	< 0.1	2.09	2.5	40	47	24	29
00ARMC2	0.70	< 0.1	2.17	2.5	45	47	27	29
00ARMC3	0.71	< 0.1	2.16	2.3	44	46	27	28
00ARMC4	0.67	< 0.1	2.07	2.4	39	48	24	28
Mean	0.70	< 0.1	2.12	2.4	42	47	26	29
Stand. Dev.	0.02	--	0.05	0.1	3	1	2	1

Table 7. Analytical results for the 2000 individual subsamples from the Arapahoe County Middle Field, Deer Trail, CO Study Area.—Continued

Field No.	ICP40 Mg, %	ICPMS Mg, %	ICP40 Mn, ppm	ICPMS Mn, ppm	ICP40 Mo, ppm	ICPMS Mo, ppm	ICP40 Na, %	ICPMS Na, %
00ARM01	0.58	0.68	290	300	<2	0.8	0.70	0.70
00ARM02	0.53	0.59	270	290	<2	0.7	0.73	0.71
00ARM03	0.70	0.80	369	400	<2	0.9	0.82	0.85
00ARM04	0.89	1.00	359	380	<2	0.8	0.84	0.83
00ARM05	0.85	1.00	331	370	<2	0.8	0.77	0.78
00ARM06	0.94	1.10	384	410	2	0.9	0.83	0.82
00ARM07	0.69	0.83	416	440	<2	0.9	0.77	0.82
00ARM08	0.96	1.10	353	390	<2	0.8	0.82	0.83
00ARM09	0.89	1.10	343	380	<2	0.8	0.81	0.82
00ARM10	0.87	1.10	333	370	<2	0.8	0.76	0.81
00ARM11	0.61	0.74	324	340	<2	0.8	0.72	0.76
00ARM12	0.75	0.92	322	370	<2	0.8	0.71	0.76
00ARM13	0.54	0.62	318	340	<2	0.7	0.70	0.74
00ARM14	0.78	1.00	314	380	<2	0.8	0.79	0.85
00ARM15	0.94	1.20	355	380	<2	0.8	0.79	0.83
00ARM16	0.90	1.10	344	380	<2	0.9	0.79	0.84
00ARM17	0.95	1.20	366	380	<2	0.9	0.88	0.85
00ARM18	0.65	0.83	487	540	<2	0.9	0.82	0.88
00ARM19	0.83	1.00	482	510	<2	0.9	0.78	0.83
00ARM20	0.68	0.80	278	300	<2	0.8	0.62	0.64
00ARM21	0.85	1.10	330	360	<2	0.8	0.79	0.82
00ARM22	0.88	1.10	359	390	<2	0.8	0.86	0.89
00ARM23	0.86	1.00	314	340	<2	0.8	0.73	0.75
00ARM24	0.70	0.82	318	340	<2	0.8	0.72	0.74
00ARM25	0.75	0.85	298	310	<2	0.7	0.72	0.72
00ARM26	0.95	1.10	347	370	<2	0.8	0.88	0.85
00ARM27	0.57	0.67	236	240	<2	0.7	0.63	0.64
00ARM28	0.55	0.59	466	460	<2	0.8	0.92	0.92
00ARM29	0.57	0.62	358	360	<2	0.8	0.82	0.86
00ARM30	0.70	0.81	301	310	<2	0.8	0.66	0.68
Mean	0.76	0.91	346	371	<2	0.8	0.77	0.79
Stand. Dev. ^{##}	0.14	0.19	58	61	--	0.1	0.07	0.07
Field No.	ICP40 Mg, %	ICPMS Mg, %	ICP40 Mn, ppm	ICPMS Mn, ppm	ICP40 Mo, ppm	ICPMS Mo, ppm	ICP40 Na, %	ICPMS Na, %
00ARMC1	0.76	1.10	309	420	<2	0.8	0.76	0.90
00ARMC2	0.82	1.00	359	420	<2	0.7	0.79	0.91
00ARMC3	0.81	0.96	356	390	<2	0.7	0.79	0.82
00ARMC4	0.74	0.98	315	400	<2	0.8	0.76	0.86
Mean	0.78	1.01	335	408	<2	0.8	0.77	0.87
Stand. Dev.	0.04	0.06	26	15	--	0.1	0.02	0.04

Table 7. Analytical results for the 2000 individual subsamples from the Arapahoe County Middle Field, Deer Trail, CO Study Area.—Continued

Field No.	ICP40 Nb, ppm	ICPMS Nb, ppm	ICP40 Nd, ppm	ICPMS Nd, ppm	ICP40 Ni, ppm	ICPMS Ni, ppm	ICP40 P, %	ICPMS P, %
00ARM01	11	12	37	35	14	15	0.06	0.06
00ARM02	11	12	34	34	13	14	0.05	0.05
00ARM03	14	15	42	42	17	18	0.06	0.06
00ARM04	12	15	45	40	17	18	0.07	0.07
00ARM05	12	14	36	37	17	19	0.07	0.08
00ARM06	13	15	42	37	62	20	0.07	0.08
00ARM07	12	15	41	43	18	20	0.07	0.07
00ARM08	11	14	37	38	17	19	0.07	0.08
00ARM09	10	14	38	38	17	19	0.07	0.08
00ARM10	11	15	40	39	17	19	0.07	0.08
00ARM11	12	14	37	38	16	18	0.05	0.06
00ARM12	11	15	39	42	17	19	0.07	0.08
00ARM13	12	13	38	39	16	18	0.06	0.06
00ARM14	11	15	38	41	16	19	0.07	0.08
00ARM15	11	14	39	39	19	20	0.07	0.08
00ARM16	12	15	38	38	17	19	0.08	0.09
00ARM17	7	15	39	38	18	20	0.07	0.09
00ARM18	13	15	43	42	18	19	0.07	0.08
00ARM19	14	16	39	41	20	22	0.07	0.07
00ARM20	9	12	36	33	17	19	0.07	0.08
00ARM21	12	14	35	36	17	19	0.07	0.08
00ARM22	13	16	41	40	17	19	0.07	0.08
00ARM23	11	15	39	38	19	19	0.07	0.08
00ARM24	12	15	41	40	17	20	0.06	0.07
00ARM25	11	13	36	37	16	18	0.06	0.07
00ARM26	12	15	38	39	17	19	0.07	0.08
00ARM27	8	11	32	30	13	15	0.06	0.07
00ARM28	12	15	43	39	14	16	0.06	0.07
00ARM29	13	14	43	41	16	16	0.06	0.07
00ARM30	12	14	36	36	17	20	0.05	0.06
Mean	12	14	39	38	18	19	0.06	0.07
Stand. Dev. ^{##}	2	1	3	3	8	2	0.01	0.01
Field No.	ICP40 Nb, ppm	ICPMS Nb, ppm	ICP40 Nd, ppm	ICPMS Nd, ppm	ICP40 Ni, ppm	ICPMS Ni, ppm	ICP40 P, %	ICPMS P, %
00ARMC1	11	14	38	38	15	20	0.06	0.08
00ARMC2	11	15	39	38	16	20	0.06	0.08
00ARMC3	9	14	38	38	17	18	0.06	0.07
00ARMC4	11	14	37	38	15	18	0.06	0.08
Mean	11	14	38	38	16	19	0.06	0.08
Stand. Dev.	1	1	1	--	1	1	--	--

Table 7. Analytical results for the 2000 individual subsamples from the Arapahoe County Middle Field, Deer Trail, CO Study Area.—Continued

Field No.	ICP40 Pb, ppm	ICPMS Pb, ppm	ICPMS Pr, ppm	ICPMS Rb, ppm	ICPMS Re, ppm	ICPMS Sb, ppm	ICP40 Sc, ppm	ICPMS Sc, ppm
00ARM01	18	17	8.8	85	< 0.05	0.7	7	6.8
00ARM02	17	16	8.3	82	< 0.05	0.6	7	6.5
00ARM03	21	20	10.0	95	< 0.05	0.7	9	8.2
00ARM04	21	20	9.6	92	< 0.05	0.6	9	8.1
00ARM05	19	19	9.3	91	< 0.05	0.7	8	8.2
00ARM06	21	20	9.0	96	< 0.05	0.7	9	8.7
00ARM07	21	22	10.0	97	< 0.05	0.8	9	8.6
00ARM08	21	19	9.5	92	< 0.05	0.6	9	8.5
00ARM09	19	18	9.4	90	< 0.05	0.6	8	8.2
00ARM10	19	19	9.7	92	< 0.05	0.7	8	8.5
00ARM11	19	19	9.6	90	< 0.05	0.7	8	8.0
00ARM12	18	19	10.0	91	< 0.05	0.6	8	8.2
00ARM13	18	18	9.5	89	< 0.05	0.7	8	7.6
00ARM14	18	19	10.0	91	< 0.05	0.7	8	8.2
00ARM15	20	19	9.4	90	< 0.05	0.7	8	8.4
00ARM16	19	19	9.2	90	< 0.05	0.7	8	8.3
00ARM17	22	19	9.5	91	< 0.05	0.7	9	8.5
00ARM18	21	21	10.0	99	< 0.05	0.6	9	9.0
00ARM19	21	21	10.0	100	< 0.05	0.7	10	9.8
00ARM20	20	18	8.3	80	< 0.05	0.7	7	7.6
00ARM21	19	18	9.0	86	< 0.05	0.6	8	8.0
00ARM22	22	19	9.9	90	< 0.05	0.7	8	8.6
00ARM23	19	18	9.5	84	< 0.05	0.6	8	7.9
00ARM24	18	19	9.9	91	< 0.05	0.7	8	8.2
00ARM25	18	17	9.0	84	< 0.05	0.7	8	7.6
00ARM26	21	18	9.6	89	< 0.05	0.6	9	8.3
00ARM27	16	16	7.1	77	< 0.05	0.6	6	6.8
00ARM28	22	21	9.4	89	< 0.05	0.6	8	7.8
00ARM29	20	19	10.0	87	< 0.05	0.6	8	7.5
00ARM30	21	20	8.7	88	< 0.05	0.7	8	8.4
Mean	20	19	9.4	90	< 0.05	0.7	8	8.1
Stand. Dev. ^{##}	2	1	0.7	5	--	0.1	1	0.7
Field No.	ICP40 Pb, ppm	ICPMS Pb, ppm	ICPMS Pr, ppm	ICPMS Rb, ppm	ICPMS Re, ppm	ICPMS Sb, ppm	ICP40 Sc, ppm	ICPMS Sc, ppm
00ARMC1	17	19	9.3	--	< 0.05	0.7	8	96
00ARMC2	18	20	9.6	--	< 0.05	0.8	8	96
00ARMC3	18	18	9.4	--	< 0.05	0.7	8	92
00ARMC4	16	19	9.7	--	< 0.05	0.7	8	94
Mean	17	19	9.5	--	< 0.05	0.7	8	95
Stand. Dev.	1	1	0.2	--	--	--	--	2

Table 7. Analytical results for the 2000 individual subsamples from the Arapahoe County Middle Field, Deer Trail, CO Study Area.—Continued

Field No.	ICPMS Se, ppm	HGAAS Se, ppm	ICPMS Sm, ppm	ICP40 Sn, ppm	ICPMS Sn, ppm	ICP40 Sr, ppm	ICPMS Sr, ppm	ICP40 Ta, ppm
00ARM01	< 1	0.3	5.8	<50	2	149	140	<40
00ARM02	< 1	0.3	5.7	<50	1	159	150	<40
00ARM03	< 1	0.4	7.0	<50	2	160	150	<40
00ARM04	< 1	0.3	6.6	<50	2	191	180	<40
00ARM05	< 1	0.4	6.3	<50	2	173	170	<40
00ARM06	< 1	0.3	6.2	<50	2	174	170	<40
00ARM07	< 1	0.4	7.2	<50	2	149	140	<40
00ARM08	< 1	0.4	6.6	<50	2	195	190	<40
00ARM09	< 1	0.3	6.6	<50	2	188	180	<40
00ARM10	< 1	0.3	6.6	<50	2	178	180	<40
00ARM11	< 1	0.3	6.5	<50	2	143	130	<40
00ARM12	< 1	0.4	6.8	<50	2	160	160	<40
00ARM13	< 1	0.3	6.4	<50	2	132	120	<40
00ARM14	< 1	0.5	7.0	<50	2	184	180	<40
00ARM15	< 1	0.4	6.5	<50	2	196	190	<40
00ARM16	< 1	0.3	6.3	<50	2	192	190	<40
00ARM17	< 1	0.3	6.4	<50	2	197	180	<40
00ARM18	< 1	0.4	7.1	<50	2	153	140	<40
00ARM19	< 1	0.4	6.9	<50	2	153	140	<40
00ARM20	< 1	0.5	5.7	<50	2	155	140	<40
00ARM21	< 1	0.4	6.2	<50	2	193	180	<40
00ARM22	< 1	0.3	6.9	<50	2	198	180	<40
00ARM23	< 1	0.4	6.6	<50	2	190	180	<40
00ARM24	< 1	0.4	6.8	<50	2	155	140	<40
00ARM25	< 1	0.4	6.1	<50	2	168	140	<40
00ARM26	< 1	0.3	6.6	<50	2	226	200	<40
00ARM27	< 1	0.3	5.0	<50	1	167	150	<40
00ARM28	< 1	0.3	6.6	<50	2	160	130	<40
00ARM29	< 1	0.3	6.9	<50	2	142	120	<40
00ARM30	< 1	0.4	6.0	<50	2	147	130	<40
Mean	< 1	0.4	6.5	<50	2	171	159	<40
Stand. Dev. ^{##}	--	0.1	0.5	--	--	22	24	--
Field No.	ICPMS Se, ppm	HGAAS Se, ppm	ICPMS Sm, ppm	ICP40 Sn, ppm	ICPMS Sn, ppm	ICP40 Sr, ppm	ICPMS Sr, ppm	ICP40 Ta, ppm
00ARMC1	< 1	0.4	6.4	<50	2	167	170	<40
00ARMC2	< 1	0.4	6.6	<50	2	175	170	<40
00ARMC3	< 1	0.4	6.3	<50	2	173	170	<40
00ARMC4	< 1	0.4	6.5	<50	2	165	170	<40
Mean	< 1	0.4	6.5	<50	2	170	170	<40
Stand. Dev.	--	--	0.1	--	--	5	--	--

Table 7. Analytical results for the 2000 individual subsamples from the Arapahoe County Middle Field, Deer Trail, CO Study Area.—Continued

Field No.	ICPMS Tb, ppm	ICPMS Te, ppm	ICP40 Th, ppm	ICPMS Th, ppm	ICP40 Ti, %	ICPMS Ti, %	ICPMS Tl, ppm	ICPMS Tm, ppm
00ARM01	0.66	< 0.1	13	12	0.24	0.3	1.3	0.31
00ARM02	0.59	< 0.1	12	11	0.24	0.3	0.7	0.27
00ARM03	0.76	< 0.1	17	15	0.29	0.4	0.7	0.34
00ARM04	0.68	< 0.1	16	14	0.28	0.3	0.8	0.31
00ARM05	0.67	< 0.1	11	13	0.26	0.3	0.8	0.31
00ARM06	0.69	< 0.1	14	13	0.29	0.3	0.8	0.31
00ARM07	0.76	< 0.1	15	15	0.27	0.3	0.8	0.33
00ARM08	0.69	< 0.1	11	13	0.28	0.3	0.7	0.32
00ARM09	0.68	< 0.1	12	13	0.26	0.3	0.7	0.30
00ARM10	0.70	< 0.1	12	14	0.26	0.3	0.7	0.32
00ARM11	0.70	< 0.1	12	13	0.27	0.3	0.7	0.31
00ARM12	0.73	< 0.1	13	14	0.25	0.3	0.7	0.31
00ARM13	0.67	< 0.1	12	13	0.25	0.3	0.6	0.28
00ARM14	0.71	< 0.1	13	14	0.26	0.3	0.7	0.31
00ARM15	0.68	< 0.1	14	13	0.27	0.3	0.7	0.30
00ARM16	0.67	< 0.1	12	13	0.27	0.3	0.7	0.30
00ARM17	0.67	< 0.1	13	13	0.27	0.3	0.7	0.30
00ARM18	0.74	< 0.1	15	14	0.29	0.4	0.8	0.33
00ARM19	0.74	< 0.1	14	14	0.29	0.4	0.8	0.33
00ARM20	0.60	< 0.1	11	11	0.24	0.3	0.6	0.26
00ARM21	0.65	< 0.1	10	12	0.26	0.3	0.6	0.30
00ARM22	0.70	< 0.1	13	14	0.27	0.4	0.7	0.33
00ARM23	0.67	< 0.1	12	13	0.24	0.3	0.7	0.30
00ARM24	0.68	< 0.1	13	13	0.27	0.3	0.7	0.28
00ARM25	0.64	< 0.1	12	12	0.25	0.3	0.7	0.28
00ARM26	0.67	< 0.1	12	13	0.27	0.3	0.7	0.30
00ARM27	0.53	< 0.1	7	9	0.22	0.3	0.6	0.26
00ARM28	0.69	< 0.1	14	12	0.28	0.3	0.7	0.30
00ARM29	0.70	< 0.1	15	14	0.26	0.3	0.6	0.30
00ARM30	0.62	< 0.1	11	12	0.26	0.3	0.7	0.27
Mean	0.68	< 0.1	13	13	0.26	0.3	0.7	0.30
Stand. Dev. ^{##}	0.05	--	2	1	0.02	--	0.1	0.02
Field No.	ICPMS Tb, ppm	ICPMS Te, ppm	ICP40 Th, ppm	ICPMS Th, ppm	ICP40 Ti, %	ICPMS Ti, %	ICPMS Tl, ppm	ICPMS Tm, ppm
00ARMC1	0.72	< 0.1	11	14	0.26	0.4	0.7	0.30
00ARMC2	0.72	< 0.1	11	14	0.27	0.4	0.7	0.31
00ARMC3	0.69	< 0.1	12	14	0.25	0.3	0.7	0.30
00ARMC4	0.71	< 0.1	11	14	0.26	0.3	0.7	0.29
Mean	0.71	< 0.1	11	14	0.26	0.4	0.7	0.30
Stand. Dev.	0.01	--	1	--	0.01	0.1	--	0.01

Table 7. Analytical results for the 2000 individual subsamples from the Arapahoe County Middle Field, Deer Trail, CO Study Area.—Continued

Field No.	ICP40 U, ppm	ICPMS U, ppm	ICP40 V, ppm	ICPMS V, ppm	ICPMS W, ppm	ICP40 Y, ppm	ICPMS Y, ppm	ICP40 Yb, ppm
00ARM01	<100	2.7	66	67	1.0	20	26	2
00ARM02	<100	2.6	64	66	0.8	19	26	2
00ARM03	<100	3.4	76	77	1.0	24	33	3
00ARM04	<100	3.2	76	76	1.0	23	30	3
00ARM05	<100	3.0	77	82	0.9	20	30	2
00ARM06	<100	3.0	81	83	1.0	24	30	3
00ARM07	<100	3.5	75	79	1.0	23	32	3
00ARM08	<100	3.1	80	82	1.0	22	31	3
00ARM09	<100	3.1	75	80	0.9	21	30	2
00ARM10	<100	3.1	75	82	1.0	22	30	3
00ARM11	<100	3.0	75	79	0.9	21	30	3
00ARM12	<100	3.0	73	79	1.0	21	31	2
00ARM13	<100	2.8	72	76	0.8	21	28	2
00ARM14	<100	3.3	70	80	1.0	21	30	2
00ARM15	<100	3.0	79	84	0.9	22	30	3
00ARM16	<100	3.2	77	83	0.9	22	30	3
00ARM17	<100	3.2	79	83	0.9	22	30	3
00ARM18	<100	3.4	73	80	1.0	23	33	3
00ARM19	<100	3.3	81	87	1.0	23	32	3
00ARM20	<100	2.8	77	83	0.9	19	26	2
00ARM21	<100	3.0	74	82	1.0	20	30	2
00ARM22	<100	3.4	73	78	1.0	21	31	3
00ARM23	<100	3.0	76	81	1.0	21	29	2
00ARM24	<100	2.9	74	81	0.9	22	29	3
00ARM25	<100	2.7	73	76	0.8	21	27	3
00ARM26	<100	3.0	78	79	1.0	23	29	3
00ARM27	<100	2.6	63	70	0.7	18	24	2
00ARM28	<100	3.1	67	68	0.9	23	29	3
00ARM29	<100	3.1	72	73	0.9	22	29	3
00ARM30	<100	2.7	83	90	0.9	20	27	2
Mean	<100	3.0	74	79	0.9	21	29	3
Stand. Dev. ^{##}	--	0.2	5	6	0.1	1	2	--
Field No.	ICP40 U, ppm	ICPMS U, ppm	ICP40 V, ppm	ICPMS V, ppm	ICPMS W, ppm	ICP40 Y, ppm	ICPMS Y, ppm	ICP40 Yb, ppm
00ARMC1	<100	3.1	71	85	1.0	21	31	2
00ARMC2	<100	3.1	78	85	1.1	23	31	3
00ARMC3	<100	2.9	77	79	1.0	22	30	3
00ARMC4	<100	3.0	70	81	1.0	21	30	2
Mean	<100	3.0	74	83	1.0	22	31	3
Stand. Dev.	--	0.1	4	3	0.1	1	1	1

Table 7. Analytical results for the 2000 individual subsamples from the Arapahoe County Middle Field, Deer Trail, CO Study Area.—Continued

Field No.	ICPMS Yb, ppm	ICP40 Zn, ppm	ICPMS Zn, ppm
00ARM01	1.8	53	54
00ARM02	1.9	51	52
00ARM03	2.3	64	67
00ARM04	2.1	59	63
00ARM05	2.1	56	64
00ARM06	2.2	78	72
00ARM07	2.2	68	74
00ARM08	2.1	61	65
00ARM09	2.0	143	62
00ARM10	2.1	58	64
00ARM11	2.0	59	63
00ARM12	2.2	57	63
00ARM13	1.9	56	61
00ARM14	2.1	53	61
00ARM15	2.0	59	63
00ARM16	2.1	60	65
00ARM17	2.0	63	66
00ARM18	2.3	77	75
00ARM19	2.3	77	81
00ARM20	1.8	61	64
00ARM21	2.1	56	59
00ARM22	2.2	61	65
00ARM23	2.0	54	59
00ARM24	1.9	58	62
00ARM25	1.9	53	56
00ARM26	2.0	57	60
00ARM27	1.7	48	53
00ARM28	2.0	63	64
00ARM29	2.1	62	59
00ARM30	1.8	62	66
Mean	2.0	63	63
Stand. Dev. ^{##}	0.2	17	6
Field No.	ICPMS Yb, ppm	ICP40 Zn, ppm	ICPMS Zn, ppm
00ARMC1	2.1	55	70
00ARMC2	2.0	59	70
00ARMC3	2.0	60	65
00ARMC4	2.0	56	66
Mean	2.0	58	68
Stand. Dev.	0.1	2	3

Table 8. Analytical results for the 2002 individual subsamples from the Arapahoe County Middle Field, Deer Trail, CO Study Area.

Field No.	ICP40* Ag, ppm	ICP-MS** Ag, ppm	ICP40 Al, %	ICP-MS Al, %	ICP40 As, ppm	ICP-MS As, ppm	ICP40 Au, ppm	ICP40 Ba, ppm
02ARM01	<2	<3	4.87	2.33	<10	9.5	<8	595
02ARM02	<2	<3	5.36	5.50	<10	7.4	<8	591
02ARM03	<2	<3	5.50	5.83	<10	7.1	<8	616
02ARM04	<2	<3	5.90	6.08	<10	7.8	<8	618
02ARM05	<2	<3	5.86	5.87	<10	6.8	<8	590
02ARM06	<2	<3	5.73	5.92	<10	7.7	<8	589
02ARM07	<2	<3	6.31	6.35	10	8.1	<8	620
02ARM08	<2	<3	5.86	5.78	<10	8.2	<8	589
02ARM09	<2	<3	5.83	5.78	<10	7.6	<8	600
02ARM10	<2	<3	5.89	5.92	<10	7.2	<8	615
02ARM11	<2	<3	5.67	5.65	<10	7.5	<8	621
02ARM12	<2	<3	5.44	5.53	<10	6.6	<8	588
02ARM13	<2	<3	5.34	5.58	<10	6.4	<8	617
02ARM14	<2	<3	6.39	6.23	10	7.4	<8	652
02ARM15	<2	<3	5.86	6.14	<10	7.0	<8	613
02ARM16	<2	<3	5.68	5.66	<10	7.1	<8	602
02ARM17	<2	<3	6.08	5.97	<10	7.4	<8	605
02ARM18	<2	<3	6.02	5.97	<10	7.2	<8	606
02ARM19	<2	<3	5.39	5.36	<10	5.0	<8	645
02ARM20	<2	<3	5.67	5.84	<10	6.1	<8	626
02ARM21	<2	<3	5.70	5.55	<10	6.4	<8	623
02ARM22	<2	<3	5.21	4.87	<10	6.6	<8	589
02ARM23	<2	<3	5.96	5.74	<10	6.6	<8	650
02ARM24	<2	<3	5.54	5.47	<10	7.1	<8	585
02ARM25	<2	<3	5.47	5.36	<10	7.0	<8	589
02ARM26	<2	<3	5.37	5.17	<10	7.0	<8	613
02ARM27	<2	<3	5.37	5.15	<10	6.6	<8	591
02ARM28	<2	<3	5.86	5.58	<10	6.4	<8	657
02ARM29	<2	<3	5.27	5.10	<10	6.4	<8	618
02ARM30	<2	<3	5.75	5.63	11	9.1	<8	545
Mean	<2	<3	5.67	5.56	--	7.1	<8	609
Stand. Dev. ^{##}	-- ^{###}	--	0.33	0.70	--	0.9	--	24

Field No.	ICP40* Ag,ppm	ICPMS** Ag,ppm	ICP40 Al, %	ICPMS Al, %	ICP40 As, ppm	ICPMS As, ppm	ICP40 Au, ppm	ICP40 Ba, ppm
02ARMC4	<2	0.03	5.39	5.70	<10	<3	<8	624
02ARMC5	<2	0.04	5.52	5.64	<10	<3	<8	630
02ARMC6	<2	0.05	5.57	5.60	<10	<3	<8	638
Mean	--	0.04	5.49	5.65	--	--	--	631
Stand. Dev. ^{##}	--	0.01	0.09	0.05	--	--	--	7

* - ICP-AES determination after a total, four-acid digestion

** - ICP-MS determination after a total, four-acid digestion

*** - Cold Vapor – Atomic Absorption Spectrometry

- Hydride Generation – Atomic Absorption Spectrometry

^{##} - Standard Deviation

^{###} - Not Determined

Table 8. Analytical results for the 2002 individual subsamples from the Arapahoe County Middle Field, Deer Trail, CO Study Area.—Continued

Field No.	ICP-MS Ba, ppm	ICP40 Be, ppm	ICP-MS Be, ppm	ICP40 Bi, ppm	ICP-MS Bi, ppm	ICP40 Ca, %	ICP-MS Ca, %	ICP40 Cd, ppm
02ARM01	653	2	1.6	<50	0.15	2.28	2.36	<2
02ARM02	651	2	1.7	<50	0.22	1.58	1.60	<2
02ARM03	662	2	1.8	<50	0.22	0.92	0.96	<2
02ARM04	682	2	1.8	<50	0.23	2.14	2.15	<2
02ARM05	661	2	1.8	<50	0.20	4.38	4.65	<2
02ARM06	668	2	1.8	<50	0.22	3.18	3.38	<2
02ARM07	668	2	2.0	<50	0.34	1.13	1.17	<2
02ARM08	642	2	1.9	<50	0.26	3.61	3.72	<2
02ARM09	661	2	1.9	<50	0.25	3.84	4.03	<2
02ARM10	674	2	1.8	<50	0.21	3.20	3.22	<2
02ARM11	655	2	1.9	<50	0.22	0.97	0.96	<2
02ARM12	652	2	1.9	<50	0.21	2.46	2.50	<2
02ARM13	659	2	1.7	<50	0.25	0.74	0.78	<2
02ARM14	679	2	2.0	<50	0.21	1.36	1.36	<2
02ARM15	698	2	1.8	<50	0.23	3.27	3.43	<2
02ARM16	662	2	1.8	<50	0.31	2.82	2.77	<2
02ARM17	652	2	1.9	<50	0.25	2.57	2.67	<2
02ARM18	642	2	1.8	<50	0.48	0.78	0.78	<2
02ARM19	673	2	1.7	<50	0.25	0.80	0.77	<2
02ARM20	664	2	1.8	<50	0.35	0.78	0.80	<2
02ARM21	652	2	1.8	<50	0.25	2.56	2.52	<2
02ARM22	605	2	1.6	<50	0.20	2.99	2.94	<2
02ARM23	686	2	1.8	<50	0.22	3.90	3.98	<2
02ARM24	638	2	1.6	<50	0.19	4.13	4.20	<2
02ARM25	642	2	1.7	<50	0.19	4.57	4.69	<2
02ARM26	652	2	1.6	<50	0.20	2.99	3.02	<2
02ARM27	608	2	1.6	<50	0.18	2.35	2.34	<2
02ARM28	676	2	1.7	<50	0.27	0.72	0.69	<2
02ARM29	646	2	1.7	<50	0.22	0.84	0.81	<2
02ARM30	589	2	1.8	<50	0.26	3.31	3.27	<2
Mean	655	2	1.8	<50	0.24	2.37	2.42	<2
Stand. Dev. ^{##}	23	--	0.1	--	0.06	1.24	1.29	--
Field No.	ICPMS Ba, ppm	ICP40 Be, ppm	ICPMS Be, ppm	ICP40 Bi, ppm	ICPMS Bi, ppm	ICP40 Ca, %	ICPMS Ca, %	ICP40 Cd, ppm
02ARMC4	656	2	1.9	<50	0.18	2.14	2.33	<2
02ARMC5	646	2	1.8	<50	0.19	2.14	2.28	<2
02ARMC6	648	2	1.7	<50	0.19	2.20	2.28	<2
Mean	650	2	1.8	--	0.19	2.16	2.30	--
Stand. Dev. ^{##}	5	--	0.1	--	0.01	0.04	0.03	--

Table 8. Analytical results for the 2002 individual subsamples from the Arapahoe County Middle Field, Deer Trail, CO Study Area.—Continued

Field No.	ICP-MS Cd, ppm	ICP40 Ce, ppm	ICP-MS Ce, ppm	ICP40 Co, ppm	ICP-MS Co, ppm	ICP40 Cr, ppm	ICP-MS Cr, ppm	ICP-MS Cs, ppm
02ARM01	0.22	69	77	7	7	30	30	3.2
02ARM02	0.24	85	90	7	7	10	38	3.7
02ARM03	0.23	90	97	7	8	12	39	3.9
02ARM04	0.26	86	95	7	8	12	42	4.2
02ARM05	0.27	81	87	8	9	12	42	4.3
02ARM06	0.29	79	83	7	9	12	42	4.3
02ARM07	0.30	93	99	9	9	31	45	4.5
02ARM08	0.31	81	88	7	8	13	41	4.1
02ARM09	0.29	84	92	7	8	14	42	4.2
02ARM10	0.27	87	106	8	8	14	42	4.3
02ARM11	0.22	91	97	7	7	20	40	3.8
02ARM12	0.24	93	105	7	8	15	39	3.8
02ARM13	0.21	85	89	6	7	11	35	3.7
02ARM14	0.25	95	94	8	9	16	42	4.4
02ARM15	0.27	80	93	7	9	13	43	4.4
02ARM16	0.27	87	90	7	8	14	38	3.9
02ARM17	0.28	86	99	8	8	39	41	4.3
02ARM18	0.27	88	100	8	8	16	41	4.2
02ARM19	0.23	96	98	7	7	13	34	3.5
02ARM20	0.29	82	100	8	9	14	40	4.2
02ARM21	0.25	85	90	7	7	14	37	3.7
02ARM22	0.24	68	71	6	7	10	30	3.5
02ARM23	0.24	85	96	8	8	12	39	4.1
02ARM24	0.27	74	85	7	8	12	38	4.0
02ARM25	0.26	75	90	7	8	14	38	3.8
02ARM26	0.21	72	74	7	7	10	34	3.7
02ARM27	0.21	71	86	6	7	15	33	3.7
02ARM28	0.29	89	99	8	8	19	37	4.0
02ARM29	0.22	88	99	7	7	13	33	3.6
02ARM30	0.22	75	89	8	8	16	43	4.6
Mean	0.25	83	92	7	8	16	39	4.0
Stand. Dev. ^{##}	0.03	8	8	1	1	7	4	0.3
Field No.	ICPMS Cd, ppm	ICP40 Ce, ppm	ICPMS Ce, ppm	ICP40 Co, ppm	ICPMS Co, ppm	ICP40 Cr, ppm	ICPMS Cr, ppm	ICPMS Cs, ppm
02ARMC4	0.24	83	84	6	8	34	37	4.2
02ARMC5	0.24	82	80	6	7	25	37	4.1
02ARMC6	0.24	84	84	6	7	38	36	4.1
Mean	0.24	83	83	6	7	32	37	4.1
Stand. Dev. ^{##}	--	1	2	--	--	7	1	0.1

Table 8. Analytical results for the 2002 individual subsamples from the Arapahoe County Middle Field, Deer Trail, CO Study Area.—Continued

Field No.	ICP40 Cu, ppm	ICP-MS Cu, ppm	ICP40 Eu, ppm	ICP40 Fe, %	ICP-MS Fe, %	ICP40 Ga, ppm	ICP-MS Ga, ppm	CV-AAS*** Hg, ppm
02ARM01	18	13	<2	2.20	2.25	12	11	0.02
02ARM02	19	15	<2	2.12	2.15	13	12	0.02
02ARM03	17	16	<2	2.18	2.31	14	14	0.02
02ARM04	21	18	<2	2.36	2.44	15	14	0.02
02ARM05	18	18	<2	2.29	2.41	15	14	<0.02
02ARM06	22	19	<2	2.29	2.43	15	14	0.02
02ARM07	25	23	<2	2.50	2.60	16	15	0.03
02ARM08	19	18	<2	2.28	2.34	15	14	0.03
02ARM09	22	18	<2	2.26	2.37	15	14	0.02
02ARM10	20	18	<2	2.38	2.42	15	14	0.02
02ARM11	20	16	<2	2.24	2.28	14	13	0.02
02ARM12	23	17	<2	2.21	2.31	14	13	0.02
02ARM13	18	16	<2	2.02	2.18	13	13	0.02
02ARM14	21	18	<2	2.51	2.56	16	15	0.02
02ARM15	22	18	<2	2.33	2.48	15	14	0.02
02ARM16	20	19	<2	2.22	2.25	14	13	0.02
02ARM17	22	19	<2	2.32	2.47	16	14	0.02
02ARM18	24	22	<2	2.37	2.48	15	14	0.03
02ARM19	19	16	<2	2.00	2.05	13	12	0.02
02ARM20	21	22	<2	2.21	2.35	14	14	0.03
02ARM21	22	17	<2	2.14	2.20	14	13	0.02
02ARM22	21	15	<2	1.85	1.90	13	11	0.02
02ARM23	19	17	<2	2.24	2.35	15	14	0.03
02ARM24	20	17	<2	2.12	2.24	14	13	0.02
02ARM25	18	16	<2	2.05	2.18	14	13	0.02
02ARM26	19	16	<2	2.00	2.10	14	12	0.02
02ARM27	18	16	<2	2.00	2.09	13	12	0.02
02ARM28	18	17	<2	2.14	2.21	14	13	0.02
02ARM29	19	15	<2	2.01	2.06	13	12	0.02
02ARM30	23	18	<2	2.38	2.49	15	13	0.02
Mean	20	17	<2	2.21	2.30	14	13	0.02
Stand. Dev. ^{##}	2	2	--	0.16	0.17	1	1	--

Field No.	ICP40 Cu, ppm	ICPMS Cu, ppm	ICP40 Eu, ppm	ICP40 Fe, %	ICPMS Fe, %	ICP40 Ga, ppm	ICPMS Ga, ppm	CV-AAS*** Hg, ppm
02ARMC4	17	17	<2	2.12	2.2	14	13	0.02
02ARMC5	18	15	<2	2.13	2.1	14	12	0.02
02ARMC6	17	15	<2	2.18	2.1	14	12	0.02
Mean	17	15	--	2.14	2.1	14	12	0.02
Stand. Dev. ^{##}	1	1	--	0.03	--	--	--	--

Table 8. Analytical results for the 2002 individual subsamples from the Arapahoe County Middle Field, Deer Trail, CO Study Area.—Continued

Field No.	ICP40 Ho, ppm	ICP40 K, %	ICP-MS K, %	ICP40 La, ppm	ICP-MS La, ppm	ICP40 Li, ppm	ICP-MS Li, ppm	ICP40 Mg, %
02ARM01	<4	1.92	1.96	36	41	23	20	0.55
02ARM02	<4	2.14	2.16	44	47	25	21	0.58
02ARM03	<4	2.11	2.27	46	50	26	22	0.64
02ARM04	<4	2.13	2.21	44	47	31	26	0.86
02ARM05	<4	2.03	2.03	41	45	35	29	1.04
02ARM06	<4	2.05	2.13	40	44	32	27	0.92
02ARM07	<4	2.18	2.26	48	50	27	26	0.85
02ARM08	<4	2.10	2.08	42	44	28	26	0.87
02ARM09	<4	2.04	2.05	43	47	29	28	0.92
02ARM10	<4	2.13	2.11	45	54	29	27	0.94
02ARM11	<4	2.10	2.18	47	49	24	23	0.67
02ARM12	<4	2.00	2.05	48	52	25	24	0.75
02ARM13	<4	2.07	2.16	43	45	21	21	0.55
02ARM14	<4	2.18	2.18	49	47	29	28	0.86
02ARM15	<4	2.10	2.15	41	46	30	28	0.96
02ARM16	<4	2.12	2.10	44	46	27	24	0.85
02ARM17	<4	2.10	2.14	44	50	29	27	0.91
02ARM18	<4	2.13	2.24	45	51	25	24	0.70
02ARM19	<4	2.21	2.20	48	49	20	19	0.53
02ARM20	<4	2.17	2.29	41	50	23	22	0.61
02ARM21	<4	2.15	2.12	43	45	24	21	0.76
02ARM22	<4	1.99	1.93	35	38	23	21	0.56
02ARM23	<4	2.12	2.05	44	49	29	27	0.94
02ARM24	<4	2.02	1.97	39	43	26	24	0.80
02ARM25	<4	1.98	1.93	39	44	26	24	0.85
02ARM26	<4	2.00	1.96	38	40	25	23	0.71
02ARM27	<4	1.98	1.87	36	43	25	23	0.61
02ARM28	<4	2.23	2.23	45	53	22	20	0.56
02ARM29	<4	2.12	2.12	45	49	21	20	0.52
02ARM30	<4	1.99	1.95	39	45	31	29	0.77
Mean	<4	2.09	2.10	43	47	26	24	0.75
Stand. Dev. ^{##}	--	0.08	0.11	4	4	4	3	0.15
Field No.	ICP40 Ho, ppm	ICP40 K, %	ICPMS K, %	ICP40 La, ppm	ICPMS La, ppm	ICP40 Li, ppm	ICPMS Li, ppm	ICP40 Mg, %
02ARMC4	<4	2.01	2.1	40	45	24	24	0.74
02ARMC5	<4	2.02	2.1	40	43	24	23	0.73
02ARMC6	<4	2.08	2.1	41	44	25	24	0.75
Mean	--	2.04	2.1	40	44	24	24	0.74
Stand. Dev. ^{##}	--	0.04	--	1	1	1	--	0.01

Table 8. Analytical results for the 2002 individual subsamples from the Arapahoe County Middle Field, Deer Trail, CO Study Area.—Continued

Field No.	ICP-MS Mg, %	ICP40 Mn, ppm	ICP-MS Mn, ppm	ICP40 Mo, ppm	ICP-MS Mo, ppm	ICP40 Na, %	ICP-MS Na, %	ICP40 Nb, ppm
02ARM01	0.56	341	346	<2	0.68	0.62	0.60	8
02ARM02	0.62	321	353	<2	0.67	0.76	0.75	10
02ARM03	0.69	344	377	<2	0.66	0.79	0.83	11
02ARM04	0.92	357	380	<2	0.70	0.81	0.81	12
02ARM05	1.12	333	364	<2	0.70	0.75	0.75	9
02ARM06	1.01	347	384	<2	0.71	0.75	0.76	9
02ARM07	0.92	401	420	<2	0.87	0.74	0.77	11
02ARM08	0.98	327	359	<2	0.73	0.75	0.75	10
02ARM09	1.05	331	362	<2	0.73	0.74	0.76	8
02ARM10	1.04	348	367	<2	0.67	0.81	0.83	8
02ARM11	0.74	328	348	<2	0.65	0.77	0.82	10
02ARM12	0.86	327	358	<2	0.73	0.71	0.77	11
02ARM13	0.64	320	364	<2	0.69	0.75	0.82	10
02ARM14	0.99	360	388	<2	0.73	0.81	0.85	12
02ARM15	1.09	336	376	<2	0.78	0.77	0.80	11
02ARM16	0.92	338	351	<2	0.69	0.77	0.79	8
02ARM17	1.03	373	391	<2	0.77	0.83	0.88	7
02ARM18	0.80	371	395	<2	0.87	0.77	0.85	8
02ARM19	0.60	363	384	<2	0.68	0.87	0.95	11
02ARM20	0.69	465	498	<2	0.83	0.80	0.87	8
02ARM21	0.84	332	349	<2	0.64	0.79	0.82	10
02ARM22	0.65	262	282	<2	0.57	0.61	0.62	9
02ARM23	1.09	329	369	<2	0.73	0.78	0.80	8
02ARM24	0.94	289	329	<2	0.65	0.68	0.71	9
02ARM25	1.00	296	326	<2	0.66	0.69	0.72	8
02ARM26	0.84	275	303	<2	0.60	0.67	0.72	9
02ARM27	0.75	265	279	<2	0.63	0.62	0.65	9
02ARM28	0.66	426	447	<2	0.79	0.85	0.92	12
02ARM29	0.61	334	352	<2	0.65	0.79	0.90	10
02ARM30	0.93	273	293	<2	0.73	0.62	0.67	10
Mean	0.85	337	363	<2	0.71	0.75	0.78	10
Stand. Dev. ^{##}	0.17	44	45	--	0.07	0.07	0.08	1

Field No.	ICPMS Mg, %	ICP40 Mn, ppm	ICPMS Mn, ppm	ICP40 Mo, ppm	ICPMS Mo, ppm	ICP40 Na, %	ICPMS Na, %	ICP40 Nb, ppm
02ARMC4	0.76	323	343	<2	0.79	0.73	0.77	16
02ARMC5	0.75	318	340	<2	0.83	0.73	0.76	17
02ARMC6	0.75	329	333	<2	0.75	0.75	0.76	16
Mean	0.76	323	339	--	0.79	0.74	0.76	16
Stand. Dev. ^{##}	0.01	6	5	--	0.04	0.01	0.01	1

Table 8. Analytical results for the 2002 individual subsamples from the Arapahoe County Middle Field, Deer Trail, CO Study Area.—Continued

Field No.	ICP-MS Nb, ppm	ICP40 Nd, ppm	ICP40 Ni, ppm	ICP-MS Ni, ppm	ICP40 P, %	ICP-MS P, %	ICP40 Pb, ppm	ICP-MS Pb, ppm
02ARM01	11	33	23	13	0.046	0.05	14	19
02ARM02	17	39	16	14	0.053	0.06	15	20
02ARM03	18	41	16	15	0.054	0.06	14	20
02ARM04	19	40	20	17	0.060	0.07	13	20
02ARM05	19	40	19	18	0.060	0.07	12	19
02ARM06	18	38	21	18	0.059	0.07	12	20
02ARM07	21	43	27	19	0.073	0.08	15	21
02ARM08	19	40	18	17	0.067	0.07	14	20
02ARM09	20	41	26	18	0.064	0.07	13	20
02ARM10	21	42	21	18	0.059	0.07	13	20
02ARM11	18	41	33	15	0.053	0.06	14	19
02ARM12	16	44	30	16	0.061	0.06	13	19
02ARM13	18	38	20	14	0.054	0.06	14	19
02ARM14	20	45	25	18	0.055	0.06	15	21
02ARM15	19	38	22	18	0.059	0.07	13	20
02ARM16	17	41	16	16	0.069	0.07	13	19
02ARM17	20	42	23	17	0.064	0.07	14	21
02ARM18	20	40	22	17	0.076	0.08	15	21
02ARM19	18	42	18	13	0.060	0.06	15	20
02ARM20	19	36	22	15	0.067	0.07	16	22
02ARM21	13	40	18	16	0.067	0.06	14	19
02ARM22	14	33	20	14	0.053	0.05	13	18
02ARM23	20	42	22	17	0.063	0.06	12	19
02ARM24	19	37	18	17	0.060	0.06	12	19
02ARM25	19	37	16	16	0.060	0.06	12	18
02ARM26	15	35	20	15	0.048	0.05	12	18
02ARM27	16	33	18	15	0.053	0.05	12	17
02ARM28	20	39	18	14	0.061	0.06	17	22
02ARM29	16	40	16	13	0.056	0.05	15	20
02ARM30	18	37	22	18	0.055	0.06	13	19
Mean	18	39	21	16	0.060	0.06	14	20
Stand. Dev. ^{##}	2	3	4	2	0.007	0.01	1	1

Field No.	ICPMS Nb, ppm	ICP40 Nd, ppm	ICP40 Ni, ppm	ICPMS Ni, ppm	ICP40 P, %	ICPMS P, %	ICP40 Pb, ppm	ICPMS Pb, ppm
02ARMC4	12	30	15	16	0.059	0.06	11	19
02ARMC5	12	30	16	16	0.058	0.06	12	19
02ARMC6	13	30	15	16	0.058	0.06	11	19
Mean	12	30	15	16	0.058	0.06	11	19
Stand. Dev. ^{##}	--	--	1	--	--	--	1	--

Table 8. Analytical results for the 2002 individual subsamples from the Arapahoe County Middle Field, Deer Trail, CO Study Area.—Continued

Field No.	ICP-MS Rb, ppm	ICP-MS Sb, ppm	ICP40 Sc, ppm	ICP-MS Sc, ppm	HGAAS [#] Se, ppm	ICP40 Sn, ppm	ICP40 Sr, ppm	ICP-MS Sr, ppm
02ARM01	81	0.67	5	6.4	0.2	<50	141	146
02ARM02	89	0.65	6	7.3	0.3	<50	153	155
02ARM03	93	0.66	7	8.0	0.4	<50	155	160
02ARM04	97	0.76	7	8.6	0.4	<50	174	176
02ARM05	92	0.65	7	8.7	0.4	<50	194	200
02ARM06	95	0.71	7	8.7	0.4	<50	178	186
02ARM07	101	0.75	8	8.9	0.5	<50	159	164
02ARM08	93	0.69	7	8.3	0.4	<50	175	179
02ARM09	93	0.70	7	8.4	0.4	<50	185	192
02ARM10	96	0.69	7	8.6	0.3	<50	190	195
02ARM11	94	0.68	7	7.8	0.4	<50	156	162
02ARM12	92	0.64	7	7.9	0.3	<50	167	177
02ARM13	94	0.68	6	7.3	0.4	<50	144	159
02ARM14	100	0.70	8	8.7	0.4	<50	177	181
02ARM15	98	0.71	7	8.6	0.3	<50	189	203
02ARM16	93	0.68	7	7.9	0.5	<50	175	181
02ARM17	97	0.72	7	8.5	0.3	<50	176	190
02ARM18	98	0.71	7	8.4	0.6	<50	148	158
02ARM19	93	0.59	6	7.0	0.5	<50	155	164
02ARM20	98	0.66	7	8.2	0.4	<50	149	162
02ARM21	92	0.57	7	7.5	0.4	<50	171	180
02ARM22	85	0.64	6	6.4	0.5	<50	149	156
02ARM23	94	0.67	7	8.2	0.4	<50	217	231
02ARM24	91	0.67	7	7.7	0.4	<50	173	184
02ARM25	89	0.65	7	7.8	0.5	<50	181	197
02ARM26	88	0.61	6	7.1	0.3	<50	181	194
02ARM27	87	0.66	6	7.1	0.4	<50	142	151
02ARM28	99	0.66	7	7.6	0.3	<50	154	164
02ARM29	92	0.61	6	6.7	0.4	<50	141	153
02ARM30	94	0.74	7	8.3	0.4	<50	150	162
Mean	93	0.67	7	7.9	0.4	<50	167	175
Stand. Dev. ^{##}	5	0.04	1	0.7	0.1	--	19	19
Field No.	ICPMS Rb, ppm	ICPMS Sb, ppm	ICP40 Sc, ppm	ICPMS Sc, ppm	HGAAS [#] Se, ppm	ICP40 Sn, ppm	ICP40 Sr, ppm	ICPMS Sr, ppm
02ARMC4	92	0.69	7	7.4	0.4	<50	163	162
02ARMC5	91	0.67	7	7.3	0.3	<50	162	161
02ARMC6	90	0.68	7	7.2	0.3	<50	166	162
Mean	91	0.68	7	7.3	0.3	--	164	162
Stand. Dev. ^{##}	1	0.01	--	0.1	0.1	--	2	1

Table 8. Analytical results for the 2002 individual subsamples from the Arapahoe County Middle Field, Deer Trail, CO Study Area.—Continued

Field No.	ICP40 Ta, ppm	ICP40 Th, ppm	ICP-MS Th, ppm	ICP40 Ti, %	ICP-MS Ti, %	ICP-MS Tl, ppm	ICP40 U, ppm	ICP-MS U, ppm
02ARM01	<40	11	13	0.24	0.25	0.6	<100	2.5
02ARM02	<40	14	15	0.29	0.29	0.6	<100	2.9
02ARM03	<40	15	16	0.29	0.33	0.6	<100	3.1
02ARM04	<40	15	16	0.30	0.30	0.7	<100	3.1
02ARM05	<40	14	15	0.29	0.29	0.7	<100	3.0
02ARM06	<40	13	15	0.29	0.29	0.7	<100	2.9
02ARM07	<40	16	16	0.31	0.34	0.7	<100	3.3
02ARM08	<40	14	14	0.29	0.29	0.7	<100	3.0
02ARM09	<40	14	15	0.29	0.30	0.7	<100	3.1
02ARM10	<40	15	17	0.30	0.33	0.7	<100	3.3
02ARM11	<40	15	16	0.29	0.31	0.7	<100	3.2
02ARM12	<40	15	18	0.29	0.30	0.6	<100	3.2
02ARM13	<40	13	15	0.27	0.31	0.6	<100	3.1
02ARM14	<40	16	16	0.31	0.30	0.7	<100	3.2
02ARM15	<40	14	16	0.29	0.29	0.7	<100	3.1
02ARM16	<40	15	15	0.29	0.27	0.7	<100	3.1
02ARM17	<40	14	16	0.28	0.33	0.7	<100	3.2
02ARM18	<40	15	16	0.30	0.33	0.7	<100	3.6
02ARM19	<40	15	16	0.29	0.29	0.6	<100	3.3
02ARM20	<40	13	16	0.29	0.32	0.7	<100	3.5
02ARM21	<40	14	15	0.28	0.25	0.6	<100	2.7
02ARM22	<40	11	12	0.24	0.25	0.6	<100	2.5
02ARM23	<40	15	16	0.29	0.32	0.7	<100	3.3
02ARM24	<40	13	14	0.27	0.32	0.7	<100	2.8
02ARM25	<40	13	15	0.26	0.31	0.6	<100	3.0
02ARM26	<40	12	13	0.26	0.27	0.6	<100	2.5
02ARM27	<40	12	14	0.25	0.29	0.6	<100	2.6
02ARM28	<40	14	16	0.29	0.33	0.7	<100	3.3
02ARM29	<40	15	15	0.28	0.27	0.6	<100	3.1
02ARM30	<40	13	14	0.27	0.31	0.6	<100	3.0
Mean	<40	14	15	0.28	0.30	0.7	<100	3.0
Stand. Dev. ^{##}	--	1	1	0.02	0.03	0.0	--	0.3

Field No.	ICP40 Ta, ppm	ICP40 Th, ppm	ICPMS Th, ppm	ICP40 Ti, %	ICPMS Ti, %	ICPMS Tl, ppm	ICP40 U, ppm	ICPMS U, ppm
02ARMC4	<40	13	15	0.25	0.30	0.6	<100	3.1
02ARMC5	<40	13	13	0.25	0.29	0.6	<100	3.0
02ARMC6	<40	13	15	0.26	0.30	0.6	<100	3.0
Mean	--	13	14	0.26	0.30	0.6	--	3.0
Stand. Dev. ^{##}	--	--	1	0.01	0.01	--	--	0.1

Table 8. Analytical results for the 2002 individual subsamples from the Arapahoe County Middle Field, Deer Trail, CO Study Area.—Continued

Field No.	ICP40 V, ppm	ICP-MS V, ppm	ICP40 Y, ppm	ICP-MS Y, ppm	ICP40 Yb, ppm	ICP40 Zn, ppm	ICP-MS Zn, ppm
02ARM01	65	66	19	22	2	48	54
02ARM02	65	67	21	25	2	52	62
02ARM03	69	72	22	27	2	53	65
02ARM04	74	76	22	27	2	56	67
02ARM05	75	78	22	27	2	53	64
02ARM06	75	80	21	27	2	55	68
02ARM07	78	81	24	29	3	67	80
02ARM08	78	79	22	30	2	56	66
02ARM09	76	78	22	27	2	55	66
02ARM10	74	75	22	28	2	55	66
02ARM11	70	71	22	28	2	56	63
02ARM12	71	74	22	28	2	54	61
02ARM13	64	66	20	26	2	51	61
02ARM14	79	77	24	28	2	61	68
02ARM15	74	78	21	27	2	55	64
02ARM16	73	72	21	25	2	55	62
02ARM17	78	78	22	28	2	60	65
02ARM18	75	75	22	28	2	67	71
02ARM19	61	61	22	27	2	53	55
02ARM20	68	70	22	28	2	64	68
02ARM21	71	70	22	25	2	54	56
02ARM22	67	65	19	22	2	50	52
02ARM23	76	74	22	27	2	55	60
02ARM24	72	74	20	25	2	51	55
02ARM25	72	74	20	26	2	49	55
02ARM26	68	67	19	23	2	50	53
02ARM27	69	68	19	24	2	52	55
02ARM28	67	64	23	28	2	60	63
02ARM29	65	63	21	26	2	54	55
02ARM30	83	82	20	31	2	60	67
Mean	72	72	21	27	2	55	62
Stand. Dev. ^{##}	5	6	1	2	0	5	6

Field No.	ICP40 V, ppm	ICPMS V, ppm	ICP40 Y, ppm	ICPMS Y, ppm	ICP40 Yb, ppm	ICP40 Zn, ppm	ICPMS Zn, ppm
02ARMC4	73	67	21	28	2	57	60
02ARMC5	73	66	21	25	2	62	58
02ARMC6	73	65	21	25	2	57	59
Mean	73	66	21	26	2	59	59
Stand. Dev. ^{##}	--	1	--	2	--	3	1

Table 9. Analytical results for the 1999 individual subsamples from the Elbert County Upper Field, Deer Trail, CO Study Area.

Field No.	ICP40* Ag, ppm	ICPMS** Ag, ppm	ICP40 Al, %	ICPMS Al, %	HG-AAS# As, ppm	ICP40 As, ppm	ICPMS As, ppm	ICP40 Au, ppm
99ELU01	<2	0.60	7.97	8.0	12	11	11.0	<8
99ELU02	<2	0.40	7.33	7.7	13	14	11.0	<8
99ELU03	<2	0.32	6.98	7.1	17	15	15.0	<8
99ELU04	<2	0.28	6.81	7.0	17	15	14.0	<8
99ELU05	<2	0.24	6.43	6.7	17	19	14.0	<8
99ELU06	<2	0.24	7.51	7.6	11	<10	10.0	<8
99ELU07	<2	0.26	8.04	8.2	11	13	9.9	<8
99ELU08	<2	0.24	6.66	7.0	15	14	14.0	<8
99ELU09	<2	0.23	6.97	7.4	17	14	14.0	<8
99ELU10	<2	0.25	7.24	7.6	13	14	12.0	<8
99ELU11	<2	0.23	7.17	7.7	13	11	11.0	<8
99ELU12	<2	0.26	7.54	7.4	13	14	12.0	<8
99ELU13	<2	0.24	6.64	6.7	11	13	9.1	<8
99ELU14	<2	0.23	6.92	7.4	13	14	11.0	<8
99ELU15	<2	0.23	6.97	7.2	15	16	13.0	<8
99ELU16	<2	0.25	7.15	7.4	13	11	11.0	<8
99ELU17	<2	0.18	7.31	7.5	11	13	9.9	<8
99ELU18	<2	0.21	6.89	7.2	12	14	9.9	<8
99ELU19	<2	0.22	6.78	7.1	12	12	9.8	<8
99ELU20	<2	0.20	6.41	6.6	11	14	9.9	<8
99ELU21	<2	0.23	7.61	8.2	11	10	10.0	<8
99ELU22	<2	0.24	7.03	7.4	12	12	10.0	<8
99ELU23	<2	0.20	6.70	6.5	16	15	13.0	<8
99ELU24	<2	0.22	6.93	7.1	12	12	9.7	<8
99ELU25	<2	0.23	6.89	7.1	15	16	12.0	<8
99ELU26	<2	0.22	7.04	7.6	12	10	11.0	<8
99ELU27	<2	0.22	6.80	7.0	15	14	12.0	<8
99ELU28	<2	0.23	7.38	7.5	15	13	12.0	<8
99ELU29	<2	0.24	7.26	7.5	13	15	11.0	<8
99ELU30	<2	0.21	5.95	6.5	10	13	9.0	<8
Mean	<2	0.25	7.04	7.3	13	13	11.4	<8
Stand. Dev.##	--###	0.08	0.44	0.4	2	2	1.7	--
Field No.	ICP40* Ag,ppm	ICPMS Ag,ppm	ICP40 Al, %	ICPMS Al, %	HG-AAS# As, ppm	ICP40 As, ppm	ICPMS As, ppm	ICP40 Au, ppm
99ELU01C	<2	0.14	6.87	9.3	11.5	18	12	<8
99ELU02C	<2	0.13	6.95	9.2	11.5	17	12	<8
99ELU03C	<2	0.13	6.91	9.2	10.8	13	12	<8
99ELU04C	<2	0.13	6.91	9.4	10.9	12	12	<8
Mean	<2	0.13	6.91	9.3	11.2	15	12	<8
Stand. Dev.##	--	--	0.03	0.1	0.4	3	--	--

* - ICP-AES determination after a total, four acid digestion

** - ICP-MS determination after a total, four acid digestion

*** - Cold Vapor - Atomic Absorption Spectrometry

- Hydride Generation - Atomic Absorption Spectrometry

- Standard Deviation

- Not Determined

Table 9. Analytical results for the 1999 individual subsamples from the Elbert County Upper Field, Deer Trail, CO Study Area.—Continued

Field No.	ICP40 Ba, ppm	ICPMS Ba, ppm	ICP40 Be, ppm	ICPMS Be, ppm	ICP40 Bi, ppm	ICPMS Bi, ppm	ICP40 Ca, %	ICPMS Ca, %
99ELU01	582	580	1	2.4	<50	0.4	2.09	2.1
99ELU02	632	650	1	2.5	<50	0.4	1.36	1.4
99ELU03	596	610	1	2.3	<50	0.3	1.95	2.0
99ELU04	817	840	1	1.9	<50	0.3	2.33	2.6
99ELU05	618	700	1	2.3	<50	0.3	1.97	2.1
99ELU06	595	630	1	1.9	<50	0.3	1.61	1.7
99ELU07	583	600	2	2.3	<50	0.3	1.32	1.4
99ELU08	578	620	1	2.2	<50	0.3	1.50	1.6
99ELU09	516	620	1	2.2	<50	0.3	1.19	1.3
99ELU10	582	630	1	2.0	<50	0.4	1.59	1.6
99ELU11	533	610	1	1.9	<50	0.4	1.67	1.8
99ELU12	598	650	1	2.3	<50	0.3	2.14	2.2
99ELU13	578	650	1	1.9	<50	0.2	2.71	2.8
99ELU14	604	640	1	2.1	<50	0.3	1.96	2.1
99ELU15	614	640	1	2.3	<50	0.3	2.04	2.1
99ELU16	567	620	1	2.1	<50	0.3	1.54	1.6
99ELU17	563	610	1	2.3	<50	0.3	2.64	2.8
99ELU18	546	600	1	2.0	<50	0.3	1.19	1.3
99ELU19	589	630	1	2.1	<50	0.3	0.86	0.9
99ELU20	571	600	1	2.0	<50	0.2	1.73	1.8
99ELU21	573	640	1	2.1	<50	0.3	2.11	2.3
99ELU22	574	640	1	1.9	<50	0.3	2.03	2.2
99ELU23	632	580	1	1.7	<50	0.3	5.80	6.1
99ELU24	605	650	1	2.2	<50	0.3	2.22	2.3
99ELU25	599	630	1	2.1	<50	0.3	1.92	2.0
99ELU26	578	650	1	2.1	<50	0.4	1.61	1.6
99ELU27	608	660	1	2.1	<50	0.3	1.51	1.5
99ELU28	569	620	1	2.2	<50	0.4	1.58	1.6
99ELU29	580	630	1	2.1	<50	0.3	0.86	0.9
99ELU30	469	540	1	1.9	<50	0.3	0.60	0.7
Mean	588	632	1	2.1	<50	0.3	1.85	1.9
Stand. Dev. ^{##}	54	49	--	0.2	--	0.1	0.90	0.9
Field No.	ICP40 Ba, ppm	ICPMS Ba, ppm	ICP40 Be, ppm	ICPMS Be, ppm	ICP40 Bi, ppm	ICPMS Bi, ppm	ICP40 Ca, %	ICPMS Ca, %
99ELU01C	626	630	2	2.4	<50	0.3	1.94	2.4
99ELU02C	632	620	2	2.6	<50	0.3	1.96	2.4
99ELU03C	618	600	2	2.3	<50	0.3	1.95	2.4
99ELU04C	640	640	2	2.4	<50	0.3	1.96	2.5
Mean	629	623	2	2.4	<50	0.3	1.95	2.4
Stand. Dev. ^{##}	9	17	--	0.1	--	--	0.01	0.1

Table 9. Analytical results for the 1999 individual subsamples from the Elbert County Upper Field, Deer Trail, CO Study Area.—Continued

Field No.	ICP40 Cd, ppm	ICPMS Cd, ppm	ICP40 Ce, ppm	ICPMS Ce, ppm	ICP40 Co, ppm	ICPMS Co, ppm	ICP40 Cr, ppm	ICPMS Cr, ppm
99ELU01	<2	0.2	78	74	11	12	60	68
99ELU02	<2	0.2	74	78	11	11	45	69
99ELU03	<2	0.2	74	74	11	11	44	60
99ELU04	<2	0.3	63	67	10	11	36	58
99ELU05	<2	0.2	67	68	10	10	47	54
99ELU06	<2	0.2	71	70	10	10	34	64
99ELU07	<2	0.2	78	77	11	11	61	68
99ELU08	<2	0.2	73	70	10	11	52	58
99ELU09	<2	0.2	67	76	11	12	36	63
99ELU10	<2	0.2	75	78	11	12	48	65
99ELU11	<2	0.2	71	79	11	11	31	66
99ELU12	<2	0.2	74	78	10	11	58	66
99ELU13	<2	0.2	79	83	9	10	32	53
99ELU14	<2	0.2	75	80	11	11	47	62
99ELU15	<2	0.2	77	81	12	12	23	61
99ELU16	<2	0.2	74	73	10	11	56	62
99ELU17	<2	0.2	73	72	9	11	49	64
99ELU18	<2	0.2	72	79	10	10	42	57
99ELU19	<2	0.2	74	77	10	10	50	57
99ELU20	<2	0.2	67	71	9	9	26	49
99ELU21	<2	0.2	74	73	10	11	37	69
99ELU22	<2	0.2	74	74	9	11	28	63
99ELU23	<2	0.2	61	57	9	10	31	60
99ELU24	<2	0.2	76	78	11	11	52	58
99ELU25	<2	0.2	79	74	11	12	32	60
99ELU26	<2	0.3	72	70	10	10	51	63
99ELU27	<2	0.2	79	73	10	11	39	57
99ELU28	<2	0.2	77	74	11	11	33	62
99ELU29	<2	0.2	73	72	12	10	32	62
99ELU30	<2	0.2	62	62	8	9	33	52
Mean	<2	0.2	73	74	10	11	42	61
Stand. Dev. ^{##}	--	--	5	6	1	1	11	5

Field No.	ICP40 Cd, ppm	ICPMS Cd, ppm	ICP40 Ce, ppm	ICPMS Ce, ppm	ICP40 Co, ppm	ICPMS Co, ppm	ICP40 Cr, ppm	ICPMS Cr, ppm
99ELU01C	<2	0.2	77	75	11	12	42	74
99ELU02C	<2	0.2	80	72	12	12	78	74
99ELU03C	<2	0.2	76	70	12	12	51	72
99ELU04C	<2	0.2	74	77	11	13	47	74
Mean	<2	0.2	77	74	12	12	55	74
Stand. Dev. ^{##}	--	--	3	3	1	1	16	1

Table 9. Analytical results for the 1999 individual subsamples from the Elbert County Upper Field, Deer Trail, CO Study Area.—Continued

Field No.	ICPMS Cs, ppm	ICP40 Cu, ppm	ICPMS Cu, ppm	ICPMS Dy, ppm	ICPMS Er, ppm	ICP40 Eu, ppm	ICPMS Eu, ppm	ICP40 Fe, %
99ELU01	8.0	26	20	4.5	2.3	<2	1.2	3.38
99ELU02	7.5	26	20	4.5	2.4	<2	1.2	3.39
99ELU03	6.7	27	20	4.6	2.3	<2	1.2	3.80
99ELU04	6.5	25	20	4.2	2.1	<2	1.2	3.60
99ELU05	6.0	23	20	4.4	2.2	<2	1.2	3.44
99ELU06	7.4	23	20	4.3	2.3	<2	1.2	3.19
99ELU07	8.0	24	20	4.6	2.4	<2	1.2	3.35
99ELU08	6.3	27	20	4.6	2.3	<2	1.2	3.45
99ELU09	7.0	24	20	4.6	2.4	<2	1.2	3.41
99ELU10	7.3	24	20	4.6	2.4	<2	1.2	3.34
99ELU11	7.5	24	20	4.7	2.4	<2	1.2	3.10
99ELU12	7.2	24	20	4.7	2.4	<2	1.2	3.30
99ELU13	5.7	19	20	4.6	2.5	<2	1.2	2.77
99ELU14	6.9	23	20	4.5	2.3	<2	1.2	3.18
99ELU15	6.9	27	20	4.6	2.4	<2	1.2	3.37
99ELU16	7.1	23	20	4.6	2.3	<2	1.2	3.13
99ELU17	7.3	23	20	4.5	2.3	<2	1.2	2.95
99ELU18	6.7	19	20	4.6	2.3	<2	1.2	2.81
99ELU19	6.8	21	20	4.4	2.3	<2	1.2	2.98
99ELU20	5.9	18	20	4.1	2.1	<2	1.1	2.58
99ELU21	8.2	23	20	4.6	2.4	<2	1.2	3.00
99ELU22	7.1	23	20	4.6	2.4	<2	1.2	2.90
99ELU23	6.6	23	20	3.8	2.0	<2	1.0	3.22
99ELU24	6.3	21	20	4.6	2.3	<2	1.2	2.89
99ELU25	6.5	23	20	4.8	2.5	<2	1.2	3.08
99ELU26	7.3	22	20	4.5	2.3	<2	1.2	2.97
99ELU27	6.3	24	20	4.7	2.3	<2	1.2	3.06
99ELU28	7.4	23	20	4.6	2.4	<2	1.2	3.08
99ELU29	7.3	22	20	4.6	2.4	<2	1.2	2.91
99ELU30	6.3	19	20	4.0	2.0	<2	1.1	2.40
Mean	6.9	23	20	4.5	2.3	<2	1.2	3.13
Stand. Dev. ^{##}	0.6	2	--	0.2	0.1	--	--	0.30
Field No.	ICPMS Cs, ppm	ICP40 Cu, ppm	ICPMS Cu, ppm	ICPMS Dy, ppm	ICPMS Er, ppm	ICP40 Eu, ppm	ICPMS Eu, ppm	ICP40 Fe, %
99ELU01C	7.0	22	30	4.3	2.2	<2	1.2	3.22
99ELU02C	6.8	22	30	4.3	2.2	<2	1.1	3.22
99ELU03C	6.7	21	20	4.2	2.1	<2	1.1	3.19
99ELU04C	7.1	23	31	4.5	2.2	<2	1.2	3.19
Mean	6.9	22	28	4.3	2.2	<2	73.5	3.21
Stand. Dev. ^{##}	0.2	1	5	0.1	0.1	--	0.1	0.02

Table 9. Analytical results for the 1999 individual subsamples from the Elbert County Upper Field, Deer Trail, CO Study Area.—Continued

Field No.	ICPMS Fe, %	ICP40 Ga, ppm	ICPMS Ga, ppm	ICPMS Gd, ppm	ICPMS Ge, ppm	CV-AAS*** Hg, ppm	ICP40 Ho, ppm	ICPMS Ho, ppm
99ELU01	3.4	20	18	5.3	1.4	0.03	<4	0.72
99ELU02	3.5	20	17	5.4	1.4	0.03	<4	0.74
99ELU03	4.0	17	16	5.5	1.3	0.04	<4	0.78
99ELU04	3.9	18	16	5.0	1.2	0.03	<4	0.70
99ELU05	3.7	17	15	5.1	1.2	0.03	<4	0.74
99ELU06	3.3	17	17	5.2	1.4	<0.02	<4	0.70
99ELU07	3.4	20	18	5.5	1.4	0.02	<4	0.75
99ELU08	3.7	18	15	5.4	1.4	0.02	<4	0.72
99ELU09	3.7	18	16	5.6	1.4	0.03	<4	0.77
99ELU10	3.8	18	17	5.8	1.4	0.03	<4	0.75
99ELU11	3.4	17	17	5.6	1.3	0.02	<4	0.74
99ELU12	3.6	18	16	5.5	1.3	0.03	<4	0.75
99ELU13	2.9	17	15	5.6	1.2	<0.02	<4	0.75
99ELU14	3.4	17	16	5.4	1.3	0.02	<4	0.74
99ELU15	3.6	18	16	5.6	1.3	0.02	<4	0.76
99ELU16	3.4	19	16	5.4	1.3	0.02	<4	0.71
99ELU17	3.3	18	17	5.2	1.3	<0.02	<4	0.72
99ELU18	3.1	17	16	5.3	1.4	<0.02	<4	0.72
99ELU19	3.1	18	16	5.3	1.4	<0.02	<4	0.72
99ELU20	2.8	15	14	4.9	1.3	0.02	<4	0.67
99ELU21	3.5	20	18	5.4	1.3	<0.02	<4	0.77
99ELU22	3.3	18	16	5.6	1.3	0.02	<4	0.76
99ELU23	3.5	16	14	4.4	1.0	0.04	<4	0.63
99ELU24	3.1	18	15	5.4	1.3	0.02	<4	0.72
99ELU25	3.4	18	15	5.6	1.3	0.02	<4	0.77
99ELU26	3.3	18	16	5.4	1.3	0.03	<4	0.72
99ELU27	3.3	18	15	5.5	1.3	0.02	<4	0.74
99ELU28	3.4	20	16	5.6	1.2	0.02	<4	0.76
99ELU29	3.2	18	17	5.5	1.3	<0.02	<4	0.74
99ELU30	2.8	15	14	4.8	1.2	<0.02	<4	0.67
Mean	3.4	18	16	5.4	1.3	0.03	<4	0.73
Stand. Dev. ^{##}	0.3	1	1	0.3	0.1	--	--	0.03
Field No.	ICPMS Fe, %	ICP40 Ga, ppm	ICPMS Ga, ppm	ICPMS Gd, ppm	ICPMS Ge, ppm	CV-AAS*** Hg, ppm	ICP40 Ho, ppm	ICPMS Ho, ppm
99ELU01C	3.9	7	17	5.4	1.4	<0.02	<4	0.71
99ELU02C	3.8	15	17	5.2	1.4	0.03	<4	0.69
99ELU03C	3.8	12	16	5.2	1.4	0.03	<4	0.67
99ELU04C	3.9	12	18	5.5	1.4	0.03	<4	0.71
Mean	3.9	12	17	5.3	1.4	0.03	<4	0.70
Stand. Dev. ^{##}	0.1	3	1	0.1	--	--	--	0.02

Table 9. Analytical results for the 1999 individual subsamples from the Elbert County Upper Field, Deer Trail, CO Study Area.—Continued

Field No.	ICPMS In, ppm	ICP40 K, %	ICPMS K, %	ICP40 La, ppm	ICPMS La, ppm	ICP40 Li, ppm	ICPMS Li, ppm	ICP40 Mg, %
99ELU01	< 0.1	2.35	2.3	39	40	50	51	1.40
99ELU02	< 0.1	2.21	2.3	36	40	45	48	1.57
99ELU03	< 0.1	2.27	2.2	36	40	42	43	1.25
99ELU04	< 0.1	2.19	2.2	33	38	42	44	1.36
99ELU05	< 0.1	2.12	2.2	33	38	36	38	1.16
99ELU06	< 0.1	2.37	2.3	36	39	46	46	1.34
99ELU07	< 0.1	2.34	2.3	38	42	48	49	1.40
99ELU08	< 0.1	2.21	2.3	36	40	37	39	1.06
99ELU09	< 0.1	2.20	2.3	33	40	40	43	1.10
99ELU10	< 0.1	2.25	2.3	36	42	43	45	1.24
99ELU11	< 0.1	2.18	2.3	35	42	45	48	1.32
99ELU12	< 0.1	2.27	2.2	38	41	45	45	1.38
99ELU13	< 0.1	2.16	2.2	39	44	35	35	1.08
99ELU14	< 0.1	2.15	2.2	37	44	42	44	1.33
99ELU15	< 0.1	2.13	2.2	38	42	42	43	1.41
99ELU16	< 0.1	2.24	2.2	36	40	42	42	1.19
99ELU17	< 0.1	2.20	2.2	36	40	46	47	1.44
99ELU18	< 0.1	2.19	2.2	35	41	38	40	1.08
99ELU19	< 0.1	2.35	2.4	36	40	37	39	1.01
99ELU20	< 0.1	2.16	2.2	34	37	35	35	1.03
99ELU21	< 0.1	2.20	2.3	36	40	48	51	1.38
99ELU22	< 0.1	2.16	2.3	37	41	42	44	1.31
99ELU23	< 0.1	1.97	1.8	30	32	45	43	1.21
99ELU24	< 0.1	2.21	2.1	37	40	40	41	1.24
99ELU25	< 0.1	2.20	2.2	38	40	40	41	1.18
99ELU26	< 0.1	2.28	2.3	34	38	43	45	1.19
99ELU27	< 0.1	2.27	2.2	39	40	38	40	1.18
99ELU28	< 0.1	2.26	2.2	37	40	45	45	1.27
99ELU29	< 0.1	2.36	2.3	36	40	41	43	1.12
99ELU30	< 0.1	1.95	2.1	30	35	33	37	0.86
Mean	< 0.1	2.21	2.2	36	40	42	43	1.23
Stand. Dev. ^{##}	--	0.10	0.1	2	2	4	4	0.15
Field No.	ICPMS In, ppm	ICP40 K, %	ICPMS K, %	ICP40 La, ppm	ICPMS La, ppm	ICP40 Li, ppm	ICPMS Li, ppm	ICP40 Mg, %
99ELU01C	< 0.1	2.31	2.9	40	42	42	49	1.21
99ELU02C	< 0.1	2.34	2.8	40	40	43	50	1.23
99ELU03C	< 0.1	2.32	2.8	40	38	43	48	1.20
99ELU04C	< 0.1	2.31	2.8	40	42	43	50	1.23
Mean	< 0.1	2.32	2.8	40	41	43	49	1.22
Stand. Dev. ^{##}	--	0.01	--	--	2	1	1	0.02

Table 9. Analytical results for the 1999 individual subsamples from the Elbert County Upper Field, Deer Trail, CO Study Area.—Continued

Field No.	ICPMS Mg, %	ICP40 Mn, ppm	ICPMS Mn, ppm	ICP40 Mo, ppm	ICPMS Mo, ppm	ICP40 Na, %	ICPMS Na, %	ICP40 Nb, ppm
99ELU01	1.4	257	270	<2	1.1	0.61	0.58	13
99ELU02	1.6	285	290	2	1.9	0.68	0.67	13
99ELU03	1.3	312	310	2	1.5	0.67	0.66	12
99ELU04	1.5	284	350	2	1.9	0.62	0.58	11
99ELU05	1.3	293	320	<2	1.6	0.69	0.64	10
99ELU06	1.4	267	290	<2	1.4	0.69	0.67	12
99ELU07	1.4	320	330	<2	1.2	0.62	0.61	9
99ELU08	1.2	305	350	<2	1.6	0.63	0.63	11
99ELU09	1.3	282	340	2	1.8	0.63	0.64	11
99ELU10	1.4	298	330	2	1.7	0.63	0.64	13
99ELU11	1.5	275	300	<2	1.3	0.64	0.67	11
99ELU12	1.5	285	300	2	1.6	0.69	0.67	11
99ELU13	1.2	299	330	<2	1.1	0.75	0.74	11
99ELU14	1.4	282	300	<2	1.3	0.69	0.70	12
99ELU15	1.5	284	300	2	1.5	0.65	0.66	12
99ELU16	1.3	270	290	<2	1.2	0.64	0.64	10
99ELU17	1.6	246	280	<2	1.3	0.65	0.65	13
99ELU18	1.2	260	300	<2	1.0	0.60	0.61	11
99ELU19	1.1	319	350	<2	1.1	0.67	0.69	11
99ELU20	1.1	240	260	<2	0.8	0.65	0.66	10
99ELU21	1.6	241	280	<2	1.0	0.58	0.61	12
99ELU22	1.4	246	300	<2	1.3	0.64	0.67	11
99ELU23	1.3	175	230	3	2.0	0.46	0.42	9
99ELU24	1.4	284	310	<2	1.0	0.74	0.71	10
99ELU25	1.3	308	330	<2	1.2	0.70	0.70	10
99ELU26	1.4	245	280	2	1.6	0.63	0.62	12
99ELU27	1.2	285	310	<2	1.2	0.72	0.71	11
99ELU28	1.4	280	300	<2	1.0	0.66	0.64	12
99ELU29	1.2	271	300	<2	0.9	0.67	0.68	11
99ELU30	1.0	235	270	<2	0.7	0.52	0.56	10
Mean	1.3	274	303	--	1.3	0.64	0.64	11
Stand. Dev. ^{##}	0.2	30	28	--	0.3	0.06	0.06	1
Field No.	ICPMS Mg, %	ICP40 Mn, ppm	ICPMS Mn, ppm	ICP40 Mo, ppm	ICPMS Mo, ppm	ICP40 Na, %	ICPMS Na, %	ICP40 Nb, ppm
99ELU01C	1.7	263	360	<2	1.3	0.64	0.81	21
99ELU02C	1.7	273	350	<2	1.4	0.66	0.80	17
99ELU03C	1.7	262	340	<2	1.3	0.65	0.79	15
99ELU04C	1.7	265	350	<2	1.4	0.64	0.81	15
Mean	1.7	266	350	<2	1.4	0.65	0.80	17
Stand. Dev. ^{##}	--	5	8	--	0.1	0.01	0.01	3

Table 9. Analytical results for the 1999 individual subsamples from the Elbert County Upper Field, Deer Trail, CO Study Area.—Continued

Field No.	ICPMS Nb, ppm	ICP40 Nd, ppm	ICPMS Nd, ppm	ICP40 Ni, ppm	ICPMS Ni, ppm	ICP40 P, %	ICPMS P, %	ICP40 Pb, ppm
99ELU01	15	35	35	31	27	0.08	0.09	25
99ELU02	14	34	36	28	28	0.08	0.08	27
99ELU03	13	35	36	25	27	0.08	0.08	26
99ELU04	12	31	33	24	27	0.07	0.07	26
99ELU05	12	34	33	21	24	0.07	0.07	27
99ELU06	14	36	34	24	26	0.08	0.08	23
99ELU07	14	38	36	25	26	0.08	0.08	24
99ELU08	12	33	35	24	26	0.07	0.08	27
99ELU09	13	33	36	28	28	0.07	0.08	26
99ELU10	14	34	37	26	27	0.08	0.08	26
99ELU11	14	35	37	26	27	0.08	0.08	26
99ELU12	15	38	37	24	27	0.07	0.08	26
99ELU13	14	38	38	20	22	0.07	0.08	23
99ELU14	14	35	37	24	26	0.07	0.08	26
99ELU15	13	37	37	26	27	0.08	0.08	30
99ELU16	17	36	36	24	26	0.08	0.08	25
99ELU17	16	34	36	24	26	0.07	0.08	22
99ELU18	13	34	36	21	23	0.07	0.08	21
99ELU19	13	35	36	22	23	0.08	0.08	24
99ELU20	12	33	33	20	20	0.07	0.07	21
99ELU21	14	33	36	25	27	0.08	0.08	22
99ELU22	15	36	36	24	26	0.08	0.08	23
99ELU23	11	29	29	24	25	0.07	0.07	25
99ELU24	14	37	36	23	24	0.08	0.08	24
99ELU25	13	35	37	24	25	0.08	0.08	27
99ELU26	14	35	35	24	25	0.08	0.08	24
99ELU27	13	37	36	24	24	0.09	0.08	27
99ELU28	14	38	36	25	25	0.08	0.08	26
99ELU29	14	34	35	24	24	0.08	0.08	25
99ELU30	12	29	31	19	20	0.07	0.07	19
Mean	14	35	35	24	25	0.07	0.08	25
Stand. Dev. ^{##}	1	2	2	2	2	0.01	--	2
Field No.	ICPMS Nb, ppm	ICP40 Nd, ppm	ICPMS Nd, ppm	ICP40 Ni, ppm	ICPMS Ni, ppm	ICP40 P, %	ICPMS P, %	ICP40 Pb, ppm
99ELU01C	14	33	35	22	30	0.080	0.1	27
99ELU02C	13	31	33	22	29	0.075	0.1	27
99ELU03C	14	37	32	22	29	0.075	0.1	25
99ELU04C	14	33	35	23	30	0.080	0.1	25
Mean	14	34	34	22	30	0.078	0.1	26
Stand. Dev. ^{##}	1	3	2	1	1	--	--	1

Table 9. Analytical results for the 1999 individual subsamples from the Elbert County Upper Field, Deer Trail, CO Study Area.—Continued

Field No.	ICPMS Pb, ppm	ICPMS Pr, ppm	ICPMS Rb, ppm	ICPMS Re, ppm	ICPMS Sb, ppm	ICP40 Sc, ppm	ICPMS Sc, ppm	ICPMS Se, ppm
99ELU01	30	8.5	120	< 0.05	1.1	13	11	< 1
99ELU02	26	8.8	110	< 0.05	1.1	12	11	< 1
99ELU03	28	8.7	110	< 0.05	1.3	11	10	< 1
99ELU04	27	8.0	110	< 0.05	1.2	10	10	1
99ELU05	26	8.1	100	< 0.05	1.2	9	9	< 1
99ELU06	23	8.6	120	< 0.05	1.0	12	11	< 1
99ELU07	23	8.8	120	< 0.05	0.9	13	12	< 1
99ELU08	27	8.4	110	< 0.05	1.2	10	10	< 1
99ELU09	27	8.6	120	< 0.05	1.2	10	11	< 1
99ELU10	27	9.0	120	< 0.05	1.2	11	11	< 1
99ELU11	25	8.8	120	< 0.05	1.1	11	11	< 1
99ELU12	26	9.0	110	< 0.05	1.2	11	11	< 1
99ELU13	23	9.5	100	< 0.05	0.9	9	9	< 1
99ELU14	26	8.9	110	< 0.05	1.1	11	10	< 1
99ELU15	27	9.3	110	< 0.05	1.2	11	10	< 1
99ELU16	24	8.8	120	< 0.05	1.1	11	10	< 1
99ELU17	23	8.7	120	< 0.05	1.0	11	10	< 1
99ELU18	22	8.8	110	< 0.05	0.9	10	10	< 1
99ELU19	24	8.7	120	< 0.05	1.0	10	10	< 1
99ELU20	20	8.1	100	< 0.05	0.8	9	9	< 1
99ELU21	22	8.8	120	< 0.05	1.0	12	12	< 1
99ELU22	24	8.8	120	< 0.05	1.1	11	10	< 1
99ELU23	22	7.0	96	< 0.05	1.2	10	10	1
99ELU24	23	8.8	110	< 0.05	1.0	10	10	< 1
99ELU25	28	8.8	110	< 0.05	1.1	11	10	< 1
99ELU26	26	8.3	110	< 0.05	1.1	11	10	< 1
99ELU27	26	8.8	110	< 0.05	1.1	11	10	< 1
99ELU28	25	8.8	110	< 0.05	1.0	11	10	< 1
99ELU29	24	8.7	120	< 0.05	1.0	11	10	< 1
99ELU30	20	7.5	100	< 0.05	0.8	9	9	< 1
Mean	25	8.6	112	< 0.05	1.1	11	10	--
Stand. Dev. ^{##}	2	0.5	8	--	0.1	1	1	--
Field No.	ICPMS Pb, ppm	ICPMS Pr, ppm	ICPMS Rb, ppm	ICPMS Re, ppm	ICPMS Sb, ppm	ICP40 Sc, ppm	ICPMS Sc, ppm	ICPMS Se, ppm
99ELU01C	26	8.6	120	< 0.05	1.0	11	12	< 1
99ELU02C	26	8.1	110	< 0.05	1.0	11	12	< 1
99ELU03C	25	7.8	110	< 0.05	1.0	11	12	< 1
99ELU04C	26	8.6	120	< 0.05	1.1	11	12	< 1
Mean	26	8.3	115	< 0.05	1.0	11	12	< 1
Stand. Dev. ^{##}	1	0.4	6	--	0.1	--	--	--

Table 9. Analytical results for the 1999 individual subsamples from the Elbert County Upper Field, Deer Trail, CO Study Area.—Continued

Field No.	HG-AAS Se, ppm	ICPMS Sm, ppm	ICP40 Sn, ppm	ICPMS Sn, ppm	ICP40 Sr, ppm	ICPMS Sr, ppm	ICP40 Ta, ppm	ICPMS Tb, ppm
99ELU01	0.8	6.0	<50	3	171	160	<40	0.68
99ELU02	1.2	6.1	<50	2	121	110	<40	0.70
99ELU03	1.2	6.2	<50	2	126	120	<40	0.70
99ELU04	1.5	5.7	<50	2	144	140	<40	0.63
99ELU05	0.9	5.8	<50	2	125	130	<40	0.70
99ELU06	1.0	5.9	<50	2	153	150	<40	0.67
99ELU07	0.8	6.2	<50	3	149	150	<40	0.70
99ELU08	1.0	6.2	<50	2	116	110	<40	0.71
99ELU09	1.0	6.1	<50	2	113	110	<40	0.73
99ELU10	0.9	6.4	<50	2	133	140	<40	0.72
99ELU11	0.8	6.3	<50	3	124	130	<40	0.72
99ELU12	0.9	6.4	<50	2	141	140	<40	0.72
99ELU13	0.6	6.5	<50	2	168	170	<40	0.72
99ELU14	0.8	6.3	<50	2	132	140	<40	0.72
99ELU15	1.3	6.5	<50	2	129	140	<40	0.75
99ELU16	0.7	6.3	<50	2	117	110	<40	0.69
99ELU17	0.6	6.3	<50	2	190	200	<40	0.68
99ELU18	0.9	6.1	<50	2	121	130	<40	0.70
99ELU19	0.9	6.2	<50	2	119	120	<40	0.70
99ELU20	0.8	5.6	<50	2	135	140	<40	0.64
99ELU21	0.8	6.2	<50	3	167	190	<40	0.71
99ELU22	1.0	6.2	<50	3	141	150	<40	0.74
99ELU23	1.4	5.0	<50	2	517	510	<40	0.58
99ELU24	0.7	6.1	<50	2	169	170	<40	0.72
99ELU25	1.0	6.3	<50	2	156	160	<40	0.74
99ELU26	1.1	6.2	<50	2	170	170	<40	0.70
99ELU27	1.1	6.4	<50	2	146	150	<40	0.72
99ELU28	0.9	6.4	<50	2	154	160	<40	0.73
99ELU29	0.6	6.2	<50	2	124	120	<40	0.72
99ELU30	0.5	5.5	<50	2	97	97	<40	0.62
Mean	0.9	6.1	<50	2	152	154	<40	0.70
Stand. Dev. ^{##}	0.2	0.3	--	--	72	72	--	0.04
Field No.	HG-AAS Se, ppm	ICPMS Sm, ppm	ICP40 Sn, ppm	ICPMS Sn, ppm	ICP40 Sr, ppm	ICPMS Sr, ppm	ICP40 Ta, ppm	ICPMS Tb, ppm
99ELU01C	0.9	6.2	<50	3	145	150	<40	0.70
99ELU02C	0.9	5.9	<50	2	148	140	<40	0.68
99ELU03C	0.8	5.6	<50	2	146	140	<40	0.65
99ELU04C	0.9	6.0	<50	2	147	150	<40	0.70
Mean	0.9	5.9	<50	2	147	145	<40	0.68
Stand. Dev. ^{##}	0.1	0.2	--	1	1	6	--	0.02

Table 9. Analytical results for the 1999 individual subsamples from the Elbert County Upper Field, Deer Trail, CO Study Area.—Continued

Field No.	ICPMS Te, ppm	ICP40 Th, ppm	ICPMS Th, ppm	ICP40 Ti, %	ICPMS Ti, %	ICPMS Tl, ppm	ICPMS Tm, ppm	ICP40 U, ppm
99ELU01	< 0.1	12	12	0.31	0.4	0.8	0.35	<100
99ELU02	< 0.1	11	13	0.30	0.3	0.8	0.32	<100
99ELU03	< 0.1	11	12	0.28	0.3	0.7	0.32	<100
99ELU04	< 0.1	9	11	0.26	0.3	0.7	0.30	<100
99ELU05	< 0.1	9	11	0.25	0.3	0.7	0.31	<100
99ELU06	< 0.1	11	11	0.30	0.3	0.7	0.31	<100
99ELU07	< 0.1	12	12	0.31	0.3	0.8	0.34	<100
99ELU08	< 0.1	11	12	0.27	0.3	0.7	0.32	<100
99ELU09	< 0.1	10	12	0.27	0.3	0.8	0.33	<100
99ELU10	< 0.1	11	12	0.29	0.4	0.7	0.34	<100
99ELU11	< 0.1	11	12	0.30	0.4	0.8	0.33	<100
99ELU12	< 0.1	11	12	0.31	0.4	0.7	0.35	<100
99ELU13	< 0.1	12	12	0.29	0.3	0.7	0.33	<100
99ELU14	< 0.1	12	12	0.29	0.3	0.7	0.34	<100
99ELU15	< 0.1	12	12	0.29	0.3	0.7	0.33	<100
99ELU16	< 0.1	11	12	0.29	0.3	0.7	0.32	<100
99ELU17	< 0.1	10	12	0.29	0.3	0.7	0.31	<100
99ELU18	< 0.1	11	12	0.28	0.3	0.7	0.32	<100
99ELU19	< 0.1	11	11	0.29	0.3	0.7	0.32	<100
99ELU20	< 0.1	10	10	0.27	0.3	0.6	0.29	<100
99ELU21	< 0.1	12	12	0.30	0.4	0.8	0.33	<100
99ELU22	< 0.1	12	12	0.28	0.4	0.7	0.34	<100
99ELU23	< 0.1	8	10	0.26	0.3	0.6	0.28	<100
99ELU24	< 0.1	12	11	0.29	0.3	0.7	0.35	<100
99ELU25	< 0.1	12	12	0.29	0.3	0.7	0.37	<100
99ELU26	< 0.1	10	11	0.29	0.3	0.7	0.32	<100
99ELU27	< 0.1	12	11	0.29	0.3	0.6	0.35	<100
99ELU28	< 0.1	12	12	0.30	0.4	0.7	0.34	<100
99ELU29	< 0.1	12	12	0.29	0.4	0.7	0.34	<100
99ELU30	< 0.1	9	10	0.24	0.3	0.6	0.29	<100
Mean	< 0.1	11	12	0.28	0.7	0.7	0.33	<100
Stand. Dev. ^{##}	--	1	1	0.02	0.0	0.1	0.02	--
Field No.	ICPMS Te, ppm	ICP40 Th, ppm	ICPMS Th, ppm	ICP40 Ti, %	ICPMS Ti, %	ICPMS Tl, ppm	ICPMS Tm, ppm	ICP40 U, ppm
99ELU01C	< 0.1	14	12	0.34	0.4	0.8	0.3	<100
99ELU02C	< 0.1	13	12	0.36	0.4	0.8	0.3	<100
99ELU03C	< 0.1	13	12	0.34	0.4	0.7	0.3	<100
99ELU04C	< 0.1	15	12	0.35	0.4	0.8	0.3	<100
Mean	< 0.1	14	12	0.34	0.4	0.8	0.3	<100
Stand. Dev. ^{##}	--	1	--	0.01	--	0.1	0.0	--

Table 9. Analytical results for the 1999 individual subsamples from the Elbert County Upper Field, Deer Trail, CO Study Area.—Continued

Field No.	ICPMS U, ppm	ICP40 V, ppm	ICPMS V, ppm	ICPMS W, ppm	ICP40 Y, ppm	ICPMS Y, ppm	ICP40 Yb, ppm	ICPMS Yb, ppm
99ELU01	3.3	133	120	1.6	25	30	3	2.1
99ELU02	3.3	122	120	1.5	23	34	3	2.2
99ELU03	3.2	120	120	1.3	24	31	3	2.2
99ELU04	3.0	110	110	1.2	21	28	3	2.0
99ELU05	3.0	100	100	1.2	21	30	3	2.2
99ELU06	3.2	117	110	1.4	22	30	3	2.1
99ELU07	3.4	128	120	1.6	24	32	3	2.3
99ELU08	3.1	107	110	1.2	22	30	3	2.3
99ELU09	3.2	110	120	1.3	21	31	3	2.2
99ELU10	3.3	116	110	1.3	22	35	3	2.2
99ELU11	3.2	115	120	1.4	22	32	3	2.2
99ELU12	3.4	115	110	1.4	23	32	3	2.4
99ELU13	3.1	93	93	1.2	22	31	3	2.2
99ELU14	3.0	113	110	1.3	23	31	3	2.2
99ELU15	3.4	119	110	1.3	24	35	3	2.5
99ELU16	3.0	114	110	1.3	22	31	3	2.2
99ELU17	3.0	114	110	1.3	22	34	3	2.1
99ELU18	2.7	104	100	1.3	21	30	3	2.2
99ELU19	2.7	104	100	1.3	22	30	3	2.2
99ELU20	2.7	95	90	1.1	21	28	3	2.0
99ELU21	3.0	122	120	1.5	23	32	3	2.4
99ELU22	3.1	114	110	1.5	22	32	3	2.3
99ELU23	2.9	110	100	1.2	20	26	3	1.9
99ELU24	3.5	105	100	1.2	22	30	3	2.3
99ELU25	3.5	107	110	1.3	23	31	3	2.3
99ELU26	3.2	107	110	1.3	21	29	3	2.2
99ELU27	3.1	109	100	1.3	23	30	3	2.2
99ELU28	3.2	113	110	1.4	23	31	3	2.2
99ELU29	2.7	109	110	1.4	22	34	3	2.2
99ELU30	2.4	89	94	1.2	19	26	2	2.0
Mean	3.1	111	109	1.3	22	31	3	2.2
Stand. Dev. ^{##}	0.3	10	9	0.1	1	2	--	0.1
Field No.	ICPMS U, ppm	ICP40 V, ppm	ICPMS V, ppm	ICPMS W, ppm	ICP40 Y, ppm	ICPMS Y, ppm	ICP40 Yb, ppm	ICPMS Yb, ppm
99ELU01C	3.1	118	130	1.3	20	31	3	2.1
99ELU02C	3.0	119	130	1.3	21	31	3	2.0
99ELU03C	3.0	117	120	1.3	20	30	3	2.0
99ELU04C	3.1	119	130	1.3	21	32	3	2.0
Mean	3.1	118	128	1.3	21	31	3	2.0
Stand. Dev. ^{##}	0.1	1	5	--	1	1	--	0.1

Table 9. Analytical results for the 1999 individual subsamples from the Elbert County Upper Field, Deer Trail, CO Study Area.—Continued

Field No.	ICP40 Zn, ppm	ICPMS Zn, ppm
99ELU01	97	100
99ELU02	98	100
99ELU03	94	100
99ELU04	90	98
99ELU05	84	92
99ELU06	89	100
99ELU07	99	100
99ELU08	94	97
99ELU09	89	100
99ELU10	90	100
99ELU11	88	98
99ELU12	88	97
99ELU13	74	80
99ELU14	88	95
99ELU15	94	99
99ELU16	87	96
99ELU17	84	93
99ELU18	79	89
99ELU19	87	94
99ELU20	73	78
99ELU21	87	98
99ELU22	84	93
99ELU23	86	90
99ELU24	83	87
99ELU25	86	94
99ELU26	89	99
99ELU27	89	92
99ELU28	93	95
99ELU29	90	95
99ELU30	79	87
Mean	88	95
Stand. Dev. ^{##}	6	6

Field No.	ICP40 Zn, ppm	ICPMS Zn, ppm
99ELU01C	92	100
99ELU02C	88	100
99ELU03C	87	100
99ELU04C	91	110
Mean	89.50	102.50
Stand. Dev. ^{##}	2.38	5.00

Table 10. Analytical results for the 1999 individual subsamples from the Elbert County Middle Field, Deer Trail, CO Study Area.

Field No.	ICP10* Ag, ppm	ICP40** Ag, ppm	ICP40 Al, %	HG-AAS# As, ppm	ICP10 As, ppm	ICP40 As, ppm	ICP10 Au, ppm	ICP40 Au, ppm
99ELM01	<0.08	<2	6.53	12.1	8	13	<0.1	<8
99ELM02	<0.08	<2	6.29	12.2	9	13	<0.1	<8
99ELM03	<0.08	<2	8.02	9.7	8	11	<0.1	<8
99ELM04	<0.08	<2	7.17	11.7	9	15	<0.1	<8
99ELM05	<0.08	<2	6.91	13.7	11	15	<0.1	<8
99ELM06	<0.08	<2	6.25	14.9	11	13	<0.1	<8
99ELM07	<0.08	<2	6.09	17.6	11	16	<0.1	<8
99ELM08	<0.08	<2	6.51	14.3	10	14	<0.1	<8
99ELM09	<0.08	<2	6.83	14.4	9	15	<0.1	<8
99ELM10	<0.08	<2	6.87	12.8	10	14	<0.1	<8
99ELM11	<0.08	<2	6.72	14.5	11	17	<0.1	<8
99ELM12	<0.08	<2	6.51	11.8	9	16	0.1	<8
99ELM13	<0.08	<2	6.98	14.4	8	13	<0.1	<8
99ELM14	<0.08	<2	6.69	15.9	10	15	0.1	<8
99ELM15	<0.08	<2	6.37	18.1	11	12	<0.1	<8
99ELM16	<0.08	<2	5.71	18.1	10	16	<0.1	<8
99ELM17	<0.08	<2	5.75	14.8	10	15	<0.1	<8
99ELM18	<0.08	<2	6.26	12.3	8	11	<0.1	<8
99ELM19	<0.08	<2	6.12	12.1	7	12	<0.1	<8
99ELM20	<0.08	<2	7.44	14.1	6	13	<0.1	<8
99ELM21	<0.08	<2	6.47	18.7	10	17	0.1	<8
99ELM22	<0.08	<2	6.08	16.2	8	15	0.1	<8
99ELM23	<0.08	<2	4.36	24.1	15	18	<0.1	<8
99ELM24	<0.08	<2	4.52	18.1	14	12	<0.1	<8
99ELM25	<0.08	<2	3.89	26.6	22	20	<0.1	<8
99ELM26	<0.08	<2	4.38	20.6	16	16	0.1	<8
99ELM27	<0.08	<2	5.86	15.1	11	13	<0.1	<8
99ELM28	<0.08	<2	7.23	14.5	10	19	0.1	<8
99ELM29	<0.08	<2	6.75	17.9	12	19	<0.1	<8
99ELM30	<0.08	<2	6.88	12.3	8	15	<0.1	<8
99ELM31	<0.08	<2	6.72	13.7	9	14	0.1	<8
99ELM32	<0.08	<2	6.55	19.8	15	15	0.1	<8
99ELM33	<0.08	<2	6.30	18.4	15	23	<0.1	<8
99ELM34	<0.08	<2	5.99	17.9	15	16	<0.1	<8
99ELM35	<0.08	<2	5.21	17.7	14	19	<0.1	<8
99ELM36	<0.08	<2	7.04	11.9	9	13	<0.1	<8
Mean	<0.08	<2	6.28	15.6	11	15	0.1	<8
Stand. Dev.##	--###	--	0.89	3.6	3	3	--	--

Field No.	ICP10* Ag,ppm	ICP40** Ag,ppm	ICP40 Al, %	HG-AAS# As, ppm	ICP10 As, ppm	ICP40 As, ppm	ICP10 Au, ppm	ICP40 Au, ppm
99ELM01C	<0.08	<2	6.38	13.9	11	14	<0.1	<8
99ELM02C	<0.08	<2	6.21	14.1	8	16	<0.1	<8
99ELM03C	<0.08	<2	6.27	13.9	12	12	<0.1	<8
99ELM04C	<0.08	<2	6.26	14.5	12	13	<0.1	<8
Mean	<0.08	<2	6.28	14.1	11	14	<0.1	<8
Stand. Dev.	--	--	0.07	0.3	2	2	--	--

* - ICP–AES determination after a total, four-acid digestion
 ** - ICP–MS determination after a total, four-acid digestion
 *** - Cold Vapor - Atomic Absorption Spectrometry
 # - Hydride Generation – Atomic Absorption Spectrometry

- Standard Deviation
 ### - Not Determined

Table 10. Analytical results for the 1999 individual subsamples from the Elbert County Middle Field, Deer Trail, CO Study Area.—Continued

Field No.	ICP40 Ba, ppm	ICP40 Be, ppm	ICP10 Bi, ppm	ICP40 Bi, ppm	ICP40 Ca, %	ICP10 Cd, ppm	ICP40 Cd, ppm	ICP40 Ce, ppm
99ELM01	609	2	<1	<50	2.08	0.21	<2	78
99ELM02	665	2	<1	<50	1.70	0.21	<2	80
99ELM03	622	2	<1	<50	3.00	0.16	<2	75
99ELM04	759	2	<1	<50	2.92	0.16	<2	79
99ELM05	684	2	<1	<50	2.15	0.18	<2	77
99ELM06	669	2	<1	<50	2.72	0.20	<2	83
99ELM07	642	2	<1	<50	1.44	0.25	<2	83
99ELM08	638	2	<1	<50	1.50	0.21	<2	86
99ELM09	650	2	<1	<50	1.97	0.13	<2	79
99ELM10	643	2	<1	<50	2.41	0.21	<2	84
99ELM11	613	2	<1	<50	1.97	0.17	<2	86
99ELM12	606	2	<1	<50	1.59	0.16	<2	85
99ELM13	595	2	<1	<50	2.10	0.18	<2	80
99ELM14	604	2	<1	<50	2.33	0.20	<2	84
99ELM15	595	2	<1	<50	1.89	0.18	<2	79
99ELM16	616	2	<1	<50	2.28	0.19	<2	70
99ELM17	675	2	<1	<50	3.09	0.17	<2	75
99ELM18	636	2	<1	<50	2.39	0.13	<2	76
99ELM19	615	2	<1	<50	2.51	0.12	<2	77
99ELM20	576	2	<1	<50	2.47	0.24	<2	74
99ELM21	573	2	<1	<50	2.38	0.23	<2	78
99ELM22	630	2	<1	<50	1.60	0.17	<2	75
99ELM23	814	1	<1	<50	3.10	0.24	<2	63
99ELM24	999	2	<1	<50	5.06	0.25	<2	60
99ELM25	1260	1	<1	<50	4.48	0.27	<2	52
99ELM26	921	2	<1	<50	6.07	0.24	<2	55
99ELM27	633	2	<1	<50	1.73	0.22	<2	66
99ELM28	658	2	<1	<50	3.20	0.15	<2	75
99ELM29	741	2	<1	<50	2.39	0.20	<2	79
99ELM30	612	2	<1	<50	2.37	0.17	<2	72
99ELM31	642	2	<1	<50	2.11	0.19	<2	82
99ELM32	616	2	<1	<50	1.91	0.23	<2	77
99ELM33	631	2	<1	<50	1.79	0.25	<2	75
99ELM34	779	2	<1	<50	1.87	0.22	<2	69
99ELM35	678	2	<1	<50	1.77	0.22	<2	65
99ELM36	661	2	<1	<50	2.51	0.18	<2	73
Mean	682	2	<1	<50	2.47	0.20	<2	75
Stand. Dev. ^{##}	134	--	--	--	0.98	0.04	--	8
Field No.	ICP40 Ba, ppm	ICP40 Be, ppm	ICP10 Bi, ppm	ICP40 Bi, ppm	ICP40 Ca, %	ICP10 Cd, ppm	ICP40 Cd, ppm	ICP40 Ce, ppm
99ELM01C	698	2	<1	<50	2.50	0.19	<2	72
99ELM02C	688	2	<1	<50	2.45	0.22	<2	77
99ELM03C	698	2	<1	<50	2.52	0.22	<2	75
99ELM04C	711	2	<1	<50	2.49	0.21	<2	74
Mean	699	2	<1	<50	2.49	0.21	<2	75
Stand. Dev.	9	--	--	--	0.03	0.01	--	2

Table 10. Analytical results for the 1999 individual subsamples from the Elbert County Middle Field, Deer Trail, CO Study Area.—Continued

Field No.	ICP40 Co, ppm	ICP40 Cr, ppm	ICP10 Cu, ppm	ICP40 Cu, ppm	ICP40 Eu, ppm	ICP40 Fe, %	ICP40 Ga, ppm	CV-AAS*** Hg, ppm
99ELM01	11	55	18.7	21	<2	3.31	11	0.03
99ELM02	11	52	17.4	20	<2	3.19	12	0.03
99ELM03	12	76	20.6	24	<2	3.47	21	0.05
99ELM04	12	92	19.7	22	<2	3.49	16	0.06
99ELM05	13	96	19.6	22	<2	3.72	12	0.03
99ELM06	11	58	18.1	21	<2	3.42	13	0.03
99ELM07	12	79	19.6	20	<2	3.62	11	0.04
99ELM08	12	97	19.2	20	<2	3.27	15	0.03
99ELM09	12	66	17.9	20	<2	3.18	17	0.02
99ELM10	12	106	20.0	21	<2	3.31	18	0.02
99ELM11	12	68	21.5	23	<2	3.65	11	0.04
99ELM12	12	90	19.1	22	<2	3.23	12	0.02
99ELM13	12	58	19.3	21	<2	3.20	13	0.03
99ELM14	12	56	20.0	21	<2	3.62	14	0.05
99ELM15	12	61	22.1	21	<2	3.52	14	0.04
99ELM16	11	83	19.1	20	<2	3.59	11	0.04
99ELM17	11	91	17.2	19	<2	3.36	10	0.03
99ELM18	10	82	16.2	19	<2	2.81	6	0.02
99ELM19	10	72	15.7	17	<2	2.69	13	<0.02
99ELM20	10	93	21.7	24	<2	3.26	13	0.04
99ELM21	12	69	21.3	21	<2	3.68	17	0.05
99ELM22	12	74	19.3	20	<2	3.48	10	0.04
99ELM23	11	74	15.3	18	<2	3.99	7	0.05
99ELM24	11	47	16.6	18	<2	3.99	<4	0.07
99ELM25	12	39	14.4	17	<2	4.77	<4	0.09
99ELM26	10	46	12.3	17	<2	4.02	5	0.07
99ELM27	11	52	17.6	18	<2	3.32	9	0.04
99ELM28	12	66	20.7	23	<2	3.38	15	0.06
99ELM29	12	81	23.0	25	2	3.62	9	0.04
99ELM30	11	67	19.2	23	<2	3.11	16	0.03
99ELM31	11	87	19.8	24	<2	3.37	12	0.02
99ELM32	13	65	22.3	26	<2	3.92	9	0.04
99ELM33	13	50	20.8	25	<2	4.10	10	0.05
99ELM34	13	68	19.3	22	<2	4.10	13	0.05
99ELM35	11	77	15.5	17	<2	3.72	7	0.04
99ELM36	12	71	19.9	23	<2	3.37	11	0.04
Mean	12	71	18.9	21	<2	3.52	12	0.04
Stand. Dev. ^{##}	1	16	2.4	2	--	0.39	--	--

Field No.	ICP40 Co, ppm	ICP40 Cr, ppm	ICP10 Cu, ppm	ICP40 Cu, ppm	ICP40 Eu, ppm	ICP40 Fe, %	ICP40 Ga, ppm	CV-AAS*** Hg, ppm
99ELM01C	11	85	19.0	21	<2	3.62	11	0.03
99ELM02C	11	68	19.1	21	2	3.55	11	0.04
99ELM03C	13	57	19.3	21	<2	3.57	10	0.04
99ELM04C	12	60	19.7	21	<2	3.56	7	0.04
Mean	12	68	19.3	21	2	3.58	10	0.04
Stand. Dev.	1	13	0.3	--	--	0.03	2	--

Table 10. Analytical results for the 1999 individual subsamples from the Elbert County Middle Field, Deer Trail, CO Study Area.—Continued

Field No.	ICP40 Ho, ppm	ICP40 K, %	ICP40 La, ppm	ICP40 Li, ppm	ICP40 Mg, %	ICP40 Mn, ppm	ICP10 Mo, ppm	ICP40 Mo, ppm
99ELM01	<4	2.23	40	36	0.97	282	1.2	<2
99ELM02	<4	2.34	41	33	0.87	350	1.1	<2
99ELM03	<4	2.38	37	55	1.29	206	2.1	3
99ELM04	<4	2.34	40	49	1.27	260	1.3	<2
99ELM05	<4	2.38	40	42	1.37	334	1.5	<2
99ELM06	<4	2.18	42	35	0.98	327	1.7	<2
99ELM07	<4	2.29	42	31	0.84	382	1.3	<2
99ELM08	<4	2.29	43	35	0.97	343	1.2	<2
99ELM09	<4	2.28	41	39	1.14	300	1.0	<2
99ELM10	<4	2.26	43	40	1.13	306	1.0	<2
99ELM11	<4	2.24	44	40	1.11	308	1.2	<2
99ELM12	<4	2.25	44	36	1.06	299	1.0	<2
99ELM13	<4	2.20	41	43	1.22	255	1.0	<2
99ELM14	<4	2.36	42	39	1.09	318	1.1	<2
99ELM15	<4	2.16	40	36	1.01	294	1.5	3
99ELM16	<4	2.08	34	30	0.73	348	1.4	<2
99ELM17	4	2.13	39	31	0.85	329	1.4	2
99ELM18	<4	2.20	38	35	1.05	262	0.8	<2
99ELM19	<4	2.16	39	34	1.08	246	0.7	<2
99ELM20	<4	2.33	37	48	1.32	229	2.5	3
99ELM21	<4	2.17	38	38	0.99	313	1.5	<2
99ELM22	<4	2.22	38	34	0.88	326	1.1	<2
99ELM23	<4	1.97	33	17	0.50	537	1.8	<2
99ELM24	<4	1.95	31	22	1.16	588	1.8	<2
99ELM25	<4	2.04	29	14	0.82	684	2.6	<2
99ELM26	<4	1.93	31	19	0.70	683	2.2	2
99ELM27	<4	2.12	35	32	0.97	326	1.3	<2
99ELM28	<4	2.25	39	50	1.07	255	1.0	<2
99ELM29	<4	2.20	41	43	1.35	277	1.7	<2
99ELM30	<4	2.15	37	43	1.22	223	1.2	<2
99ELM31	<4	2.25	39	40	1.16	282	1.4	<2
99ELM32	<4	2.19	41	38	1.08	341	1.7	<2
99ELM33	<4	2.30	41	37	0.97	386	1.7	3
99ELM34	<4	2.27	37	34	0.92	396	1.5	2
99ELM35	<4	2.18	33	26	0.77	371	1.4	<2
99ELM36	<4	2.32	38	47	1.46	259	1.1	<2
Mean	<4	2.21	39	36	1.04	340	1.4	3
Stand. Dev. ^{##}	--	0.11	4	9	0.21	114	0.4	--
Field No.	ICP40 Ho, ppm	ICP40 K, %	ICP40 La, ppm	ICP40 Li, ppm	ICP40 Mg, %	ICP40 Mn, ppm	ICP10 Mo, ppm	ICP40 Mo, ppm
99ELM01C	<4	2.30	37	38	1.05	345	1.5	<2
99ELM02C	<4	2.23	39	37	1.02	341	1.1	<2
99ELM03C	<4	2.12	39	31	1.04	346	1.5	3
99ELM04C	<4	2.13	40	32	1.03	339	1.6	3
Mean	<4	2.20	39	35	1.04	343	1.4	3
Stand. Dev.	--	0.09	1	4	0.01	3	0.2	--

Table 10. Analytical results for the 1999 individual subsamples from the Elbert County Middle Field, Deer Trail, CO Study Area.—Continued

Field No.	ICP40 Na, %	ICP40 Nb, ppm	ICP40 Nd, ppm	ICP40 Ni, ppm	ICP40 P, %	ICP10 Pb, ppm	ICP40 Pb, ppm	ICP10 Sb, ppm
99ELM01	0.61	16	36	21	0.08	23	25	1
99ELM02	0.65	20	38	19	0.08	21	27	<1
99ELM03	0.49	19	31	26	0.07	21	24	<1
99ELM04	0.59	14	39	23	0.07	21	27	2
99ELM05	0.62	16	32	23	0.08	21	24	<1
99ELM06	0.64	16	39	19	0.07	21	26	1
99ELM07	0.68	13	39	20	0.08	25	29	2
99ELM08	0.65	17	39	21	0.08	23	28	1
99ELM09	0.66	18	36	21	0.08	19	22	<1
99ELM10	0.65	16	39	22	0.08	23	25	1
99ELM11	0.63	18	38	22	0.08	23	25	1
99ELM12	0.68	17	42	22	0.08	22	27	1
99ELM13	0.57	17	35	23	0.08	21	26	<1
99ELM14	0.59	16	37	21	0.08	23	27	1
99ELM15	0.55	17	37	22	0.08	25	24	1
99ELM16	0.54	13	31	20	0.06	21	23	1
99ELM17	0.61	15	32	18	0.07	19	25	1
99ELM18	0.67	16	35	19	0.07	18	22	<1
99ELM19	0.64	16	36	18	0.07	18	21	<1
99ELM20	0.49	16	31	26	0.08	21	22	1
99ELM21	0.52	15	35	22	0.07	24	25	1
99ELM22	0.56	13	32	20	0.07	22	23	1
99ELM23	0.59	11	27	16	0.07	19	25	<1
99ELM24	0.57	11	26	16	0.07	19	23	<1
99ELM25	0.63	8	24	14	0.07	21	26	1
99ELM26	0.59	11	25	15	0.07	17	23	1
99ELM27	0.60	14	30	19	0.07	23	24	1
99ELM28	0.50	16	33	22	0.07	22	23	1
99ELM29	0.62	13	36	22	0.07	23	26	<1
99ELM30	0.54	15	30	22	0.07	20	23	<1
99ELM31	0.63	18	35	22	0.07	21	24	1
99ELM32	0.60	17	37	23	0.07	24	27	<1
99ELM33	0.65	14	31	22	0.08	25	29	1
99ELM34	0.63	17	28	20	0.08	24	30	<1
99ELM35	0.67	14	36	17	0.07	20	29	<1
99ELM36	0.57	16	34	24	0.08	22	27	<1
Mean	0.60	15	34	21	0.07	22	25	1
Stand. Dev. ^{##}	0.05	2	4	3	--	2	2	--
Field No.	ICP40 Na, %	ICP40 Nb, ppm	ICP40 Nd, ppm	ICP40 Ni, ppm	ICP40 P, %	ICP10 Pb, ppm	ICP40 Pb, ppm	ICP10 Sb, ppm
99ELM01C	0.64	16	33	21	0.08	21	31	<1
99ELM02C	0.62	16	31	21	0.08	21	57	<1
99ELM03C	0.58	12	31	21	0.08	22	27	<1
99ELM04C	0.59	12	30	21	0.08	22	27	<1
Mean	0.61	14	31	21	0.08	22	36	<1
Stand. Dev.	0.03	2	1	--	--	1	14	--

Table 10. Analytical results for the 1999 individual subsamples from the Elbert County Middle Field, Deer Trail, CO Study Area.—Continued

Field No.	ICP40 Sc, ppm	HG-AAS Se, ppm	ICP40 Sn, ppm	ICP40 Sr, ppm	ICP40 Ta, ppm	ICP40 Th, ppm	ICP40 Ti, %	ICP40 U, ppm
99ELM01	10	0.9	<50	123	<40	14	0.33	<100
99ELM02	10	0.7	<50	119	<40	13	0.32	<100
99ELM03	13	0.9	<50	249	<40	14	0.36	<100
99ELM04	12	1.6	<50	151	<40	15	0.34	<100
99ELM05	11	0.8	<50	124	<40	12	0.36	<100
99ELM06	10	0.8	<50	154	<40	16	0.33	<100
99ELM07	10	1.0	<50	133	<40	15	0.32	<100
99ELM08	11	0.8	<50	132	<40	14	0.35	<100
99ELM09	11	0.6	<50	152	<40	13	0.34	<100
99ELM10	11	0.9	<50	161	<40	14	0.36	<100
99ELM11	11	0.9	<50	147	<40	16	0.35	<100
99ELM12	11	0.8	<50	128	<40	18	0.34	<100
99ELM13	12	0.9	<50	129	<40	15	0.36	<100
99ELM14	11	0.8	<50	115	<40	16	0.33	<100
99ELM15	10	0.9	<50	117	<40	13	0.33	<100
99ELM16	9	0.9	<50	116	<40	11	0.27	<100
99ELM17	8	0.9	<50	145	<40	14	0.29	<100
99ELM18	10	0.6	<50	158	<40	15	0.32	<100
99ELM19	10	0.5	<50	163	<40	14	0.31	<100
99ELM20	12	1.0	<50	135	<40	14	0.35	<100
99ELM21	10	0.8	<50	111	<40	14	0.31	<100
99ELM22	9	0.9	<50	114	<40	14	0.29	<100
99ELM23	6	0.9	<50	118	<40	10	0.22	<100
99ELM24	6	1.0	<50	155	<40	10	0.21	<100
99ELM25	4	1.3	<50	160	<40	7	0.15	<100
99ELM26	5	0.9	<50	187	<40	9	0.18	<100
99ELM27	9	0.9	<50	116	<40	12	0.28	<100
99ELM28	12	0.8	<50	181	<40	11	0.36	<100
99ELM29	11	1.2	<50	133	<40	12	0.33	<100
99ELM30	11	0.8	<50	150	<40	14	0.35	<100
99ELM31	11	1.0	<50	138	<40	14	0.34	<100
99ELM32	11	1.2	<50	111	<40	15	0.35	<100
99ELM33	10	1.1	<50	111	<40	13	0.31	<100
99ELM34	9	1.2	<50	124	<40	11	0.31	<100
99ELM35	7	1.2	<50	112	<40	9	0.25	<100
99ELM36	12	1.1	<50	155	<40	14	0.35	<100
Mean	10	0.9	<50	140	<40	13	0.31	<100
Stand. Dev. ^{##}	2	0.2	--	28	--	2	0.05	--

Field No.	ICP40 Sc, ppm	HG-AAS Se, ppm	ICP40 Sn, ppm	ICP40 Sr, ppm	ICP40 Ta, ppm	ICP40 Th, ppm	ICP40 Ti, %	ICP40 U, ppm
99ELM01C	10	0.9	<50	141	<40	11	0.32	<100
99ELM02C	10	0.9	<50	139	<40	13	0.33	<100
99ELM03C	10	1.0	<50	136	<40	15	0.31	<100
99ELM04C	10	1.0	<50	136	<40	15	0.31	<100
Mean	10	1.0	<50	138	<40	14	0.32	<100
Stand. Dev.	--	0.1	--	2	--	2	0.01	--

Table 10. Analytical results for the 1999 individual subsamples from the Elbert County Middle Field, Deer Trail, CO Study Area.—Continued

Field No.	ICP40 V, ppm	ICP40 Y, ppm	ICP40 Yb, ppm	ICP10 Zn, ppm	ICP40 Zn, ppm
99ELM01	112	21	3	74.8	88
99ELM02	105	21	3	75.5	80
99ELM03	138	20	3	81.7	94
99ELM04	129	21	3	77.7	88
99ELM05	124	22	3	81.0	89
99ELM06	106	21	3	73.8	79
99ELM07	104	22	3	83.6	86
99ELM08	111	22	3	82.2	89
99ELM09	113	21	3	77.3	82
99ELM10	116	22	3	78.9	85
99ELM11	119	22	3	86.0	87
99ELM12	113	22	3	78.7	85
99ELM13	120	21	3	82.0	78
99ELM14	118	22	3	80.8	83
99ELM15	112	21	3	85.7	79
99ELM16	94	20	3	77.2	74
99ELM17	93	20	2	68.9	78
99ELM18	99	20	2	64.1	75
99ELM19	97	20	2	64.9	70
99ELM20	123	20	3	80.8	86
99ELM21	115	21	3	81.9	77
99ELM22	106	20	3	77.8	81
99ELM23	69	19	2	71.2	70
99ELM24	75	18	2	69.7	65
99ELM25	58	18	2	73.4	71
99ELM26	68	20	2	63.2	63
99ELM27	99	19	2	76.9	76
99ELM28	133	21	3	81.1	91
99ELM29	121	21	3	89.6	89
99ELM30	119	20	3	79.4	79
99ELM31	118	21	3	81.2	86
99ELM32	120	22	3	86.4	87
99ELM33	114	22	3	81.3	93
99ELM34	112	19	3	80.6	89
99ELM35	86	18	2	70.9	78
99ELM36	130	21	3	82.0	93
Mean	108	21	3	77.8	82
Stand. Dev. ^{##}	19	1	--	6.3	8

Field No.	ICP40 V, ppm	ICP40 Y, ppm	ICP40 Yb, ppm	ICP10 Zn, ppm	ICP40 Zn, ppm
99ELM01C	110	20	3	77.7	88
99ELM02C	107	20	3	78.2	98
99ELM03C	110	20	3	77.2	89
99ELM04C	109	20	3	76.4	87
Mean	109	20	3	77.4	91
Stand. Dev.	1	--	--	0.8	5

Table 11. Analytical results for the 2000 individual subsamples from the Elbert County Upper Field, Deer Trail, CO Study Area.

Field No.	ICP40* Ag, ppm	ICPMS** Ag, ppm	ICP40 Al, %	ICPMS Al, %	HG-AAS# As, ppm	ICP40 As, ppm	ICPMS As, ppm	ICP40 Au, ppm
00ELU01	<2	1.50	7.25	8.0	12.3	<10	10	<8
00ELU02	<2	0.59	6.54	7.2	16.9	15	15	<8
00ELU03	<2	0.37	6.12	6.5	20.7	18	17	<8
00ELU04	<2	0.42	6.46	6.8	14.9	17	15	<8
00ELU05	<2	0.40	6.79	7.5	15.9	15	13	<8
00ELU06	<2	0.34	7.35	7.8	12.1	12	11	<8
00ELU07	<2	0.31	7.44	7.3	13.8	12	11	<8
00ELU08	<2	0.29	7.20	7.7	14.5	13	12	<8
00ELU09	<2	0.26	7.44	7.6	15.4	14	13	<8
00ELU10	<2	0.24	7.21	7.6	15.6	15	14	<8
00ELU11	<2	0.23	6.76	7.4	11.6	11	12	<8
00ELU12	<2	0.25	7.24	8.2	10.1	<10	10	<8
00ELU13	<2	0.21	5.83	6.3	9.8	16	9	<8
00ELU14	<2	0.24	7.53	7.8	10.2	13	10	<8
00ELU15	<2	0.22	7.30	8.2	10.0	11	10	<8
00ELU16	<2	0.24	7.03	7.7	11.1	11	11	<8
00ELU17	<2	0.22	7.20	7.4	12.6	17	12	<8
00ELU18	<2	0.25	6.69	7.5	10.3	13	11	<8
00ELU19	<2	0.24	7.26	7.8	11.6	13	15	<8
00ELU20	<2	0.22	7.61	7.7	22.5	18	20	<8
00ELU21	<2	0.23	6.96	7.3	10.8	<10	10	<8
00ELU22	<2	0.22	7.76	8.2	10.5	10	10	<8
00ELU23	<2	0.22	7.22	7.4	9.9	14	10	<8
00ELU24	<2	0.24	7.06	7.4	10.7	11	10	<8
00ELU25	<2	0.24	6.81	7.3	11.9	13	12	<8
00ELU26	<2	0.25	7.33	7.8	12.6	11	11	<8
00ELU27	<2	0.26	7.40	8.0	11.4	10	11	<8
00ELU28	<2	0.25	7.10	7.6	10.4	16	11	<8
00ELU29	<2	0.24	6.91	7.5	11.1	10	10	<8
00ELU30	<2	0.24	7.10	7.5	9.6	11	10	<8
Mean	<2	0.31	7.06	7.5	12.7	13	12	<8
Stand. Dev.##	--###	0.24	0.43	0.4	3.2	--	2	--
Field No.	ICP40* Ag,ppm	ICPMS** Ag,ppm	ICP40 Al, %	ICPMS Al, %	HG-AAS# As, ppm	ICP40 As, ppm	ICPMS As, ppm	ICP40 Au, ppm
00ELUC1	<2	0.22	7.32	8.4	12.9	14	11	<8
00ELUC2	<2	0.19	7.28	8.4	11.6	13	12	<8
00ELUC3	<2	0.17	7.28	8.5	12.8	14	12	<8
00ELUC4	<2	0.15	7.19	8.5	12.5	12	12	<8
Mean	<2	0.18	7.27	8.5	12.5	13	12	<8
Stand. Dev.	--	0.03	0.05	0.1	0.6	1	1	--

* - ICP–AES determination after a total, four-acid digestion

** - ICP–MS determination after a total, four-acid digestion

*** - Cold Vapor - Atomic Absorption Spectrometry

- Hydride Generation – Atomic Absorption Spectrometry

- Standard Deviation

- Not Determined

Table 11. Analytical results for the 2000 individual subsamples from the Elbert County Upper Field, Deer Trail, CO Study Area.—Continued

Field No.	ICP40 Ba, ppm	ICPMS Ba, ppm	ICP40 Be, ppm	ICPMS Be, ppm	ICP40 Bi, ppm	ICPMS Bi, ppm	ICP40 Ca, %	ICPMS Ca, %
00ELU01	563	630	1	2.3	<50	0.6	1.20	1.3
00ELU02	602	700	1	2.1	<50	0.4	1.20	1.3
00ELU03	627	670	1	2.0	<50	0.3	1.00	1.0
00ELU04	591	650	1	2.2	<50	0.3	1.18	1.2
00ELU05	598	650	1	2.2	<50	0.4	1.40	1.5
00ELU06	594	650	1	2.5	<50	0.4	1.16	1.2
00ELU07	659	690	1	2.3	<50	0.3	2.27	2.2
00ELU08	575	610	1	2.4	<50	0.4	0.63	0.7
00ELU09	567	620	1	2.3	<50	0.4	1.78	1.8
00ELU10	571	600	1	2.2	<50	0.4	1.69	1.7
00ELU11	574	630	1	2.0	<50	0.3	1.04	1.1
00ELU12	577	640	1	2.4	<50	0.3	1.23	1.4
00ELU13	545	600	1	1.6	<50	0.2	1.50	1.6
00ELU14	603	630	2	2.3	<50	0.3	0.92	0.9
00ELU15	559	630	1	2.3	<50	0.3	1.70	1.8
00ELU16	580	650	1	2.1	<50	0.4	0.86	0.9
00ELU17	581	610	1	2.0	<50	0.3	1.18	1.2
00ELU18	577	650	1	2.2	<50	0.3	1.67	1.8
00ELU19	575	640	1	2.1	<50	0.3	2.14	2.3
00ELU20	994	1000	1	2.2	<50	0.4	2.60	2.7
00ELU21	558	630	1	2.0	<50	0.3	2.55	2.7
00ELU22	565	610	1	2.4	<50	0.3	1.96	2.0
00ELU23	566	600	1	2.2	<50	0.3	1.39	1.4
00ELU24	556	600	1	2.2	<50	0.3	1.48	1.5
00ELU25	546	600	1	2.1	<50	0.3	1.40	1.5
00ELU26	595	620	1	2.5	<50	0.3	0.67	0.7
00ELU27	580	630	1	2.2	<50	0.3	1.16	1.2
00ELU28	558	630	1	2.2	<50	0.3	1.67	1.8
00ELU29	572	630	1	2.2	<50	0.3	1.45	1.5
00ELU30	567	620	1	2.3	<50	0.3	1.30	1.3
Mean	593	644	1	2.2	<50	0.3	1.44	1.5
Stand. Dev. ^{##}	79	72	--	0.2	--	0.1	0.49	0.5
Field No.	ICP40 Ba, ppm	ICPMS Ba, ppm	ICP40 Be, ppm	ICPMS Be, ppm	ICP40 Bi, ppm	ICPMS Bi, ppm	ICP40 Ca, %	ICPMS Ca, %
00ELUC1	606	620	1	2.5	<50	0.3	1.49	1.7
00ELUC2	597	610	1	2.4	<50	0.3	1.50	1.8
00ELUC3	589	600	1	2.4	<50	0.3	1.48	1.8
00ELUC4	600	610	1	2.5	<50	0.3	1.46	1.8
Mean	598	610	1	2.5	<50	0.3	1.48	1.8
Stand. Dev.	7	8	--	0.1	--	--	0.02	0.1

Table 11. Analytical results for the 2000 individual subsamples from the Elbert County Upper Field, Deer Trail, CO Study Area.—Continued

Field No.	ICP40 Cd, ppm	ICPMS Cd, ppm	ICP40 Ce, ppm	ICPMS Ce, ppm	ICP40 Co, ppm	ICPMS Co, ppm	ICP40 Cr, ppm	ICPMS Cr, ppm
00ELU01	<2	0.2	72	72	10	11	26	64
00ELU02	<2	0.2	70	71	11	11	31	58
00ELU03	<2	0.2	67	68	12	11	28	50
00ELU04	<2	0.3	68	66	10	11	34	53
00ELU05	<2	0.3	75	72	10	12	53	61
00ELU06	<2	0.2	74	72	10	11	36	65
00ELU07	<2	0.2	80	80	12	11	54	60
00ELU08	<2	0.2	80	80	10	11	35	64
00ELU09	<2	0.2	75	72	11	12	51	64
00ELU10	<2	0.2	77	79	12	12	24	62
00ELU11	<2	0.2	71	69	10	11	50	58
00ELU12	<2	0.2	75	82	10	11	53	62
00ELU13	<2	0.1	66	65	8	8	23	43
00ELU14	<2	0.2	77	73	10	11	43	61
00ELU15	<2	0.2	70	77	9	11	20	66
00ELU16	<2	0.3	77	81	10	11	35	62
00ELU17	<2	0.2	79	75	11	12	32	61
00ELU18	<2	0.2	78	82	10	11	51	59
00ELU19	<2	0.2	74	72	11	12	43	66
00ELU20	<2	0.2	73	70	13	13	41	67
00ELU21	<2	0.2	73	73	10	11	54	60
00ELU22	<2	0.2	75	71	11	11	28	66
00ELU23	<2	0.2	74	76	10	10	37	58
00ELU24	<2	0.2	77	72	10	10	19	56
00ELU25	<2	0.2	73	71	10	11	34	58
00ELU26	<2	0.2	78	71	11	11	59	62
00ELU27	<2	0.2	76	74	11	11	55	63
00ELU28	<2	0.2	72	72	10	11	39	61
00ELU29	<2	0.2	72	72	10	11	55	61
00ELU30	<2	0.3	73	68	10	10	33	63
Mean	<2	0.2	74	73	10	11	39	60
Stand. Dev. ^{##}	--	--	4	5	1	1	12	5

Field No.	ICP40 Cd, ppm	ICPMS Cd, ppm	ICP40 Ce, ppm	ICPMS Ce, ppm	ICP40 Co, ppm	ICPMS Co, ppm	ICP40 Cr, ppm	ICPMS Cr, ppm
00ELUC1	<2	0.2	83	75	12	12	55	69
00ELUC2	<2	0.2	76	73	11	12	56	69
00ELUC3	<2	0.2	77	76	10	12	46	72
00ELUC4	<2	0.2	74	75	10	12	35	70
Mean	<2	0.2	78	75	11	12	48	70
Stand. Dev.	--	--	4	1	1	--	10	1

Table 11. Analytical results for the 2000 individual subsamples from the Elbert County Upper Field, Deer Trail, CO Study Area.—Continued

Field No.	ICPMS Cs, ppm	ICP40 Cu, ppm	ICPMS Cu, ppm	ICPMS Dy, ppm	ICPMS Er, ppm	ICP40 Eu, ppm	ICPMS Eu, ppm	ICP40 Fe, %
00ELU01	7.5	22	20	4.7	2.4	<2	1.3	2.97
00ELU02	6.4	24	20	4.6	2.4	<2	1.2	3.40
00ELU03	5.3	26	20	4.7	2.2	<2	1.2	3.96
00ELU04	5.7	23	20	4.5	2.2	<2	1.2	3.52
00ELU05	6.7	26	20	4.7	2.4	2	1.2	3.38
00ELU06	7.5	24	20	4.8	2.4	<2	1.2	3.06
00ELU07	6.5	29	20	4.8	2.4	<2	1.2	3.20
00ELU08	7.1	23	20	4.9	2.4	<2	1.3	3.22
00ELU09	7.2	26	20	4.8	2.4	<2	1.2	3.41
00ELU10	6.7	26	20	4.7	2.4	<2	1.2	3.32
00ELU11	6.5	22	20	4.6	2.3	<2	1.2	3.16
00ELU12	7.3	20	20	4.7	2.4	<2	1.3	2.86
00ELU13	5.1	15	20	4.3	2.0	<2	1.1	2.22
00ELU14	7.1	24	20	4.7	2.4	<2	1.2	3.06
00ELU15	7.4	22	20	4.5	2.3	<2	1.2	2.89
00ELU16	6.8	23	20	4.7	2.4	<2	1.3	2.97
00ELU17	6.5	25	20	5.0	2.4	<2	1.2	3.28
00ELU18	6.2	22	20	4.9	2.5	<2	1.2	2.85
00ELU19	7.0	22	20	4.6	2.4	<2	1.2	3.10
00ELU20	7.4	34	30	4.9	2.5	2	1.3	4.49
00ELU21	6.6	22	20	4.5	2.3	<2	1.2	2.87
00ELU22	7.6	23	20	4.6	2.3	<2	1.2	3.06
00ELU23	6.8	22	20	4.5	2.3	<2	1.2	2.84
00ELU24	6.6	20	20	4.5	2.3	<2	1.2	2.72
00ELU25	6.6	21	20	4.7	2.4	<2	1.2	2.69
00ELU26	7.3	23	20	4.8	2.3	<2	1.2	2.98
00ELU27	7.4	22	20	5.0	2.4	<2	1.2	2.91
00ELU28	7.1	21	20	4.6	2.3	<2	1.2	2.81
00ELU29	6.7	22	20	4.6	2.3	<2	1.2	2.76
00ELU30	7.2	22	20	4.5	2.3	<2	1.2	2.72
Mean	6.8	23	20	4.7	2.3	2	1.2	3.09
Stand. Dev. ^{##}	0.6	3	2	0.2	0.1	--	--	0.42
Field No.	ICPMS Cs, ppm	ICP40 Cu, ppm	ICPMS Cu, ppm	ICPMS Dy, ppm	ICPMS Er, ppm	ICP40 Eu, ppm	ICPMS Eu, ppm	ICP40 Fe, %
00ELUC1	6.9	24	20	4.4	2.2	<2	1.2	3.21
00ELUC2	6.8	26	20	4.4	2.2	<2	1.1	3.21
00ELUC3	6.7	24	20	4.6	2.3	<2	1.1	3.26
00ELUC4	6.7	24	20	4.4	2.2	<2	1.1	3.17
Mean	6.8	25	20	4.5	2.2	<2	1.1	3.21
Stand. Dev.	0.1	1	--	0.1	0.1	--	0.1	0.04

Table 11. Analytical results for the 2000 individual subsamples from the Elbert County Upper Field, Deer Trail, CO Study Area.—Continued

Field No.	ICPMS Fe, %	ICP40 Ga, ppm	ICPMS Ga, ppm	ICPMS Gd, ppm	ICPMS Ge, ppm	CV-AAS*** Hg, ppm	ICP40 Ho, ppm	ICPMS Ho, ppm
00ELU01	3.4	17	17	5.8	1.4	<0.02	<4	0.77
00ELU02	4.0	17	16	5.6	1.4	0.03	<4	0.75
00ELU03	4.4	16	14	5.2	1.1	0.03	<4	0.71
00ELU04	4.0	17	15	5.1	1.3	0.03	<4	0.71
00ELU05	3.9	18	16	5.4	1.2	0.03	<4	0.74
00ELU06	3.4	20	17	5.7	1.3	0.02	<4	0.75
00ELU07	3.4	20	16	5.7	1.3	0.02	<4	0.76
00ELU08	3.6	18	17	5.8	1.4	0.02	<4	0.79
00ELU09	3.8	18	17	5.6	1.4	0.02	<4	0.76
00ELU10	3.8	18	16	5.7	1.3	0.02	<4	0.75
00ELU11	3.6	17	16	5.4	1.4	<0.02	<4	0.73
00ELU12	3.4	19	18	5.9	1.4	<0.02	<4	0.75
00ELU13	2.5	15	13	5.0	1.3	0.02	<4	0.66
00ELU14	3.4	19	17	5.5	1.4	<0.02	<4	0.74
00ELU15	3.5	17	18	5.6	1.4	<0.02	<4	0.73
00ELU16	3.4	19	17	5.7	1.4	0.02	<4	0.75
00ELU17	3.6	18	16	5.6	1.3	0.02	<4	0.76
00ELU18	3.4	16	16	5.8	1.4	0.02	<4	0.8
00ELU19	3.6	19	17	5.5	1.4	0.02	<4	0.74
00ELU20	5.1	18	17	5.7	1.3	0.06	<4	0.8
00ELU21	3.3	16	16	5.6	1.2	<0.02	<4	0.72
00ELU22	3.5	19	18	5.7	1.3	<0.02	<4	0.73
00ELU23	3.2	17	16	5.4	1.3	0.02	<4	0.74
00ELU24	3.1	18	16	5.4	1.4	0.02	<4	0.73
00ELU25	3.2	17	16	5.3	1.3	0.02	<4	0.74
00ELU26	3.4	19	17	5.7	1.3	<0.02	<4	0.76
00ELU27	3.4	18	17	5.6	1.4	<0.02	<4	0.76
00ELU28	3.4	18	17	5.5	1.3	<0.02	<4	0.74
00ELU29	3.3	17	16	5.6	1.4	0.02	<4	0.73
00ELU30	3.2	19	17	5.3	1.4	0.02	<4	0.72
Mean	3.5	18	16	5.5	1.3	0.02	<4	0.74
Stand. Dev.##	0.4	1	1	0.2	0.1	--	--	0.03
Field No.	ICPMS Fe, %	ICP40 Ga, ppm	ICPMS Ga, ppm	ICPMS Gd, ppm	ICPMS Ge, ppm	CV-AAS*** Hg, ppm	ICP40 Ho, ppm	ICPMS Ho, ppm
00ELUC1	3.7	19	17	5.3	1.4	0.03	<4	0.71
00ELUC2	3.6	18	16	5.4	1.3	0.04	<4	0.73
00ELUC3	3.7	17	17	5.4	1.5	0.04	<4	0.72
00ELUC4	3.7	18	16	5.4	1.4	0.03	<4	0.71
Mean	3.7	18	17	5.4	1.4	0.04	<4	0.72
Stand. Dev.	0.1	1	1	--	0.1	0.01	--	0.01

Table 11. Analytical results for the 2000 individual subsamples from the Elbert County Upper Field, Deer Trail, CO Study Area.—Continued

Field No.	ICPMS In, ppm	ICP40 K, %	ICPMS K, %	ICP40 La, ppm	ICPMS La, ppm	ICP40 Li, ppm	ICPMS Li, ppm	ICP40 Mg, %
00ELU01	0.1	2.22	2.3	36	40	42	46	1.22
00ELU02	< 0.1	2.16	2.3	35	40	37	40	1.10
00ELU03	< 0.1	2.18	2.3	35	38	33	36	0.93
00ELU04	< 0.1	2.24	2.2	34	37	35	37	0.89
00ELU05	< 0.1	2.20	2.3	36	40	40	43	1.17
00ELU06	< 0.1	2.26	2.3	37	41	45	48	1.35
00ELU07	< 0.1	2.33	2.2	40	41	44	42	1.31
00ELU08	< 0.1	2.29	2.4	38	42	42	44	1.17
00ELU09	< 0.1	2.33	2.3	37	40	45	45	1.25
00ELU10	< 0.1	2.27	2.3	39	41	43	44	1.24
00ELU11	< 0.1	2.24	2.3	36	39	37	40	1.12
00ELU12	< 0.1	2.27	2.4	38	46	42	45	1.16
00ELU13	< 0.1	2.02	2.1	33	36	30	32	0.92
00ELU14	< 0.1	2.43	2.4	39	40	42	43	1.15
00ELU15	< 0.1	2.24	2.3	35	39	45	48	1.27
00ELU16	< 0.1	2.31	2.4	37	41	39	41	0.99
00ELU17	< 0.1	2.30	2.2	39	42	41	42	1.16
00ELU18	< 0.1	2.16	2.3	38	42	36	39	1.02
00ELU19	< 0.1	2.20	2.2	38	40	45	47	1.26
00ELU20	< 0.1	2.30	2.2	37	39	48	47	1.26
00ELU21	< 0.1	2.17	2.2	37	40	42	43	1.27
00ELU22	< 0.1	2.27	2.3	37	39	48	50	1.37
00ELU23	< 0.1	2.30	2.3	36	39	42	42	1.15
00ELU24	< 0.1	2.33	2.3	37	39	40	42	1.17
00ELU25	< 0.1	2.26	2.3	36	39	39	42	1.16
00ELU26	< 0.1	2.43	2.5	38	39	41	43	1.07
00ELU27	< 0.1	2.37	2.4	37	41	43	46	1.20
00ELU28	< 0.1	2.23	2.3	35	40	42	44	1.20
00ELU29	< 0.1	2.26	2.3	35	40	41	43	1.11
00ELU30	< 0.1	2.29	2.3	35	38	42	44	1.23
Mean	< 0.1	2.26	2.3	37	40	41	43	1.16
Stand. Dev. ^{##}	--	0.08	0.1	2	2	4	4	0.12
Field No.	ICPMS In, ppm	ICP40 K, %	ICPMS K, %	ICP40 La, ppm	ICPMS La, ppm	ICP40 Li, ppm	ICPMS Li, ppm	ICP40 Mg, %
00ELUC1	< 0.1	2.38	2.6	40	42	42	45	1.25
00ELUC2	< 0.1	2.36	2.7	39	41	43	46	1.24
00ELUC3	< 0.1	2.37	2.7	38	43	43	46	1.21
00ELUC4	< 0.1	2.33	2.7	38	42	42	46	1.22
Mean	< 0.1	2.36	2.7	39	42	43	46	1.23
Stand. Dev.	--	0.02	0.1	1	1	1	1	0.02

Table 11. Analytical results for the 2000 individual subsamples from the Elbert County Upper Field, Deer Trail, CO Study Area.—Continued

Field No.	ICPMS Mg, %	ICP40 Mn, ppm	ICPMS Mn, ppm	ICP40 Mo, ppm	ICPMS Mo, ppm	ICP40 Na, %	ICPMS Na, %	ICP40 Nb, ppm
00ELU01	1.4	277	320	<2	1.3	0.63	0.68	11
00ELU02	1.3	344	420	2	1.7	0.64	0.70	10
00ELU03	1.0	420	440	2	1.7	0.66	0.71	10
00ELU04	1.0	338	420	<2	1.5	0.64	0.67	10
00ELU05	1.3	338	360	2	1.9	0.63	0.68	12
00ELU06	1.5	284	320	<2	1.1	0.68	0.72	12
00ELU07	1.4	313	330	2	1.3	0.75	0.72	9
00ELU08	1.3	318	340	<2	1.4	0.70	0.75	11
00ELU09	1.4	305	320	<2	1.6	0.65	0.64	12
00ELU10	1.4	312	340	2	1.5	0.70	0.72	12
00ELU11	1.3	307	350	<2	1.3	0.69	0.74	11
00ELU12	1.4	280	330	<2	0.9	0.62	0.68	12
00ELU13	1.1	221	260	<2	0.6	0.66	0.70	10
00ELU14	1.3	324	340	<2	1.1	0.65	0.68	13
00ELU15	1.5	253	300	<2	1.2	0.63	0.69	10
00ELU16	1.2	302	350	<2	1.2	0.69	0.74	12
00ELU17	1.3	305	330	<2	1.3	0.69	0.70	11
00ELU18	1.2	312	350	<2	1.1	0.68	0.74	11
00ELU19	1.5	277	320	<2	1.2	0.66	0.69	10
00ELU20	1.4	327	360	3	2.4	0.58	0.58	11
00ELU21	1.5	260	300	<2	1.2	0.72	0.74	12
00ELU22	1.6	252	290	<2	1.0	0.61	0.63	12
00ELU23	1.3	274	300	<2	0.9	0.67	0.68	12
00ELU24	1.3	258	290	<2	0.8	0.66	0.69	11
00ELU25	1.4	255	290	<2	0.8	0.68	0.73	12
00ELU26	1.2	333	350	<2	1.0	0.65	0.70	11
00ELU27	1.4	282	320	<2	0.9	0.65	0.69	10
00ELU28	1.4	259	300	<2	1.0	0.66	0.69	10
00ELU29	1.3	283	310	<2	1.3	0.64	0.69	12
00ELU30	1.4	251	280	<2	1.0	0.66	0.69	13
Mean	1.3	295	331	2	1.2	0.66	0.70	11
Stand. Dev. ^{##}	0.1	39	41	--	0.4	0.03	0.04	1

Field No.	ICPMS Mg, %	ICP40 Mn, ppm	ICPMS Mn, ppm	ICP40 Mo, ppm	ICPMS Mo, ppm	ICP40 Na, %	ICPMS Na, %	ICP40 Nb, ppm
00ELUC1	1.5	300	350	<2	1.2	0.69	0.75	14
00ELUC2	1.5	302	340	<2	1.2	0.69	0.74	12
00ELUC3	1.5	303	330	<2	1.1	0.69	0.75	11
00ELUC4	1.5	302	350	<2	1.2	0.68	0.76	12
Mean	1.5	302	343	<2	1.2	0.68	0.75	12
Stand. Dev.	--	1	10	--	--	0.01	0.01	1

Table 11. Analytical results for the 2000 individual subsamples from the Elbert County Upper Field, Deer Trail, CO Study Area.—Continued

Field No.	ICPMS Nb, ppm	ICP40 Nd, ppm	ICPMS Nd, ppm	ICP40 Ni, ppm	ICPMS Ni, ppm	ICP40 P, %	ICPMS P, %	ICP40 Pb, ppm
00ELU01	14	34	36	23	25	0.07	0.08	23
00ELU02	12	33	36	24	26	0.07	0.07	27
00ELU03	11	32	34	26	24	0.07	0.07	30
00ELU04	11	33	34	23	25	0.07	0.07	27
00ELU05	12	36	36	25	27	0.07	0.08	28
00ELU06	13	35	37	25	27	0.08	0.08	27
00ELU07	14	40	38	25	25	0.08	0.08	29
00ELU08	14	36	38	25	26	0.08	0.08	26
00ELU09	13	36	36	27	28	0.08	0.08	29
00ELU10	13	38	37	26	28	0.08	0.08	27
00ELU11	12	35	35	23	25	0.07	0.07	25
00ELU12	13	34	38	21	24	0.08	0.08	23
00ELU13	11	34	33	16	17	0.07	0.07	17
00ELU14	13	38	37	24	25	0.08	0.08	24
00ELU15	12	35	36	24	26	0.07	0.08	22
00ELU16	13	37	37	23	25	0.08	0.08	26
00ELU17	14	37	37	25	26	0.08	0.08	28
00ELU18	14	36	38	23	25	0.07	0.08	25
00ELU19	13	38	36	25	27	0.08	0.08	25
00ELU20	13	37	37	30	31	0.08	0.08	34
00ELU21	12	37	37	24	25	0.08	0.08	24
00ELU22	13	37	35	24	26	0.08	0.08	23
00ELU23	12	34	36	23	22	0.08	0.08	24
00ELU24	13	36	36	22	22	0.08	0.08	24
00ELU25	13	35	36	22	23	0.08	0.08	23
00ELU26	13	35	36	25	24	0.08	0.08	24
00ELU27	15	35	37	23	25	0.08	0.08	25
00ELU28	14	36	36	23	24	0.08	0.08	25
00ELU29	13	35	36	24	25	0.08	0.08	25
00ELU30	13	34	35	24	24	0.09	0.09	26
Mean	13	36	36	24	25	0.07	0.08	26
Stand. Dev. ^{##}	1	2	1	2	2	--	--	3

Field No.	ICPMS Nb, ppm	ICP40 Nd, ppm	ICPMS Nd, ppm	ICP40 Ni, ppm	ICPMS Ni, ppm	ICP40 P, %	ICPMS P, %	ICP40 Pb, ppm
00ELUC1	14	35	34	24	28	0.08	0.1	25
00ELUC2	14	35	34	24	28	0.08	0.1	25
00ELUC3	15	38	36	24	28	0.08	0.1	25
00ELUC4	14	34	35	24	28	0.08	0.1	24
Mean	14	36	35	24	28	0.08	0.1	25
Stand. Dev.	1	2	1	--	--	--	--	1

Table 11. Analytical results for the 2000 individual subsamples from the Elbert County Upper Field, Deer Trail, CO Study Area.—Continued

Field No.	ICPMS Pb, ppm	ICPMS Pr, ppm	ICPMS Rb, ppm	ICPMS Re, ppm	ICPMS Sb, ppm	ICP40 Sc, ppm	ICPMS Sc, ppm	ICPMS Se, ppm
00ELU01	24	8.7	120	< 0.05	0.9	11	11	< 1
00ELU02	28	8.7	110	< 0.05	1.2	10	9	1
00ELU03	29	8.3	110	< 0.05	1.3	9	8	1
00ELU04	32	8.2	110	< 0.05	1.2	9	9	< 1
00ELU05	28	8.7	120	< 0.05	1.2	11	10	< 1
00ELU06	26	8.9	120	< 0.05	1.1	12	11	< 1
00ELU07	26	9.1	110	< 0.05	1.1	11	10	< 1
00ELU08	27	9.2	120	< 0.05	1.2	11	10	< 1
00ELU09	28	8.7	120	< 0.05	1.2	11	10	< 1
00ELU10	28	9.0	110	< 0.05	1.2	11	10	< 1
00ELU11	25	8.6	120	< 0.05	1.0	10	10	< 1
00ELU12	23	9.2	120	< 0.05	0.9	11	11	< 1
00ELU13	19	8.0	96	< 0.05	0.7	8	8	< 1
00ELU14	24	8.8	120	< 0.05	1.0	12	10	< 1
00ELU15	24	8.8	120	< 0.05	1.0	11	11	< 1
00ELU16	27	9.0	120	< 0.05	1.1	11	10	< 1
00ELU17	27	9.0	110	< 0.05	1.2	11	10	< 1
00ELU18	26	9.3	110	< 0.05	1.0	10	10	< 1
00ELU19	25	8.6	120	< 0.05	1.1	11	11	< 1
00ELU20	34	8.7	120	< 0.05	1.6	12	11	2
00ELU21	24	8.9	110	< 0.05	1.0	10	10	< 1
00ELU22	23	8.6	120	< 0.05	0.9	12	11	< 1
00ELU23	23	8.5	110	< 0.05	0.9	11	10	< 1
00ELU24	22	8.7	110	< 0.05	0.9	11	10	< 1
00ELU25	24	8.6	120	< 0.05	1.0	10	10	< 1
00ELU26	25	8.5	120	< 0.05	1.0	12	10	< 1
00ELU27	25	8.9	120	< 0.05	1.0	11	11	< 1
00ELU28	24	8.7	120	< 0.05	1.1	11	10	< 1
00ELU29	26	8.8	110	< 0.05	1.0	11	10	< 1
00ELU30	25	8.3	120	< 0.05	1.0	11	10	< 1
Mean	26	8.7	116	< 0.05	1.1	11	10	1
Stand. Dev. ^{##}	3	0.3	6	--	0.2	1	1	--
Field No.	ICPMS Pb, ppm	ICPMS Pr, ppm	ICPMS Rb, ppm	ICPMS Re, ppm	ICPMS Sb, ppm	ICP40 Sc, ppm	ICPMS Sc, ppm	ICPMS Se, ppm
00ELUC1	25	8.4	--	< 0.05	1.0	11	11.0	< 1
00ELUC2	26	8.3	--	< 0.05	1.0	11	12.0	< 1
00ELUC3	25	8.6	--	< 0.05	1.0	11	12.0	< 1
00ELUC4	26	8.4	--	< 0.05	1.0	11	12.0	< 1
Mean	26	8.4	--	< 0.05	1.0	11	11.8	< 1
Stand. Dev.	1	0.1	--	--	--	--	0.5	--

Table 11. Analytical results for the 2000 individual subsamples from the Elbert County Upper Field, Deer Trail, CO Study Area.—Continued

Field No.	HGAAS Se, ppm	ICPMS Sm, ppm	ICP40 Sn, ppm	ICPMS Sn, ppm	ICP40 Sr, ppm	ICPMS Sr, ppm	ICP40 Ta, ppm	ICPMS Tb, ppm
00ELU01	0.9	6.3	<50	3	131	140	<40	0.76
00ELU02	1.1	6.1	<50	2	110	120	<40	0.71
00ELU03	1.3	5.9	<50	2	109	110	<40	0.68
00ELU04	1.2	5.8	<50	2	122	120	<40	0.67
00ELU05	1.1	6.3	<50	2	120	120	<40	0.72
00ELU06	0.8	6.6	<50	2	123	120	<40	0.71
00ELU07	0.9	6.4	<50	2	147	140	<40	0.74
00ELU08	0.9	6.6	<50	2	108	100	<40	0.75
00ELU09	1.1	6.4	<50	2	134	130	<40	0.73
00ELU10	0.8	6.7	<50	2	121	120	<40	0.75
00ELU11	0.9	6.2	<50	2	115	120	<40	0.73
00ELU12	0.7	6.6	<50	3	135	150	<40	0.75
00ELU13	0.4	5.8	<50	2	132	140	<40	0.64
00ELU14	1.0	6.3	<50	2	125	120	<40	0.71
00ELU15	0.9	6.4	<50	3	148	160	<40	0.73
00ELU16	0.8	6.4	<50	3	119	120	<40	0.77
00ELU17	0.9	6.5	<50	2	117	110	<40	0.75
00ELU18	0.9	6.6	<50	2	141	150	<40	0.77
00ELU19	1.0	6.3	<50	2	165	180	<40	0.72
00ELU20	1.9	6.4	<50	2	163	170	<40	0.76
00ELU21	0.9	6.3	<50	2	163	170	<40	0.71
00ELU22	0.9	6.2	<50	3	173	180	<40	0.71
00ELU23	0.7	6.1	<50	2	139	140	<40	0.71
00ELU24	0.6	6.2	<50	2	139	140	<40	0.72
00ELU25	0.6	6.1	<50	2	136	140	<40	0.70
00ELU26	0.8	6.1	<50	3	118	120	<40	0.73
00ELU27	0.7	6.5	<50	3	132	140	<40	0.74
00ELU28	0.9	6.2	<50	3	143	150	<40	0.72
00ELU29	1.0	6.3	<50	2	148	160	<40	0.71
00ELU30	0.8	6.0	<50	2	130	130	<40	0.70
Mean	0.9	6.3	<50	2	134	137	<40	0.72
Stand. Dev. ^{##}	0.3	0.2	--	--	17	21	--	0.03
Field No.	HGAAS Se, ppm	ICPMS Sm, ppm	ICP40 Sn, ppm	ICPMS Sn, ppm	ICP40 Sr, ppm	ICPMS Sr, ppm	ICP40 Ta, ppm	ICPMS Tb, ppm
00ELUC1	1	6.0	<50	2	138	130	<40	0.68
00ELUC2	1	6.0	<50	2	137	130	<40	0.67
00ELUC3	1	6.0	<50	2	137	130	<40	0.70
00ELUC4	1	6.1	<50	2	135	130	<40	0.70
Mean	1	6.0	<50	2	137	130	<40	0.69
Stand. Dev.	--	--	--	--	1	--	--	0.02

Table 11. Analytical results for the 2000 individual subsamples from the Elbert County Upper Field, Deer Trail, CO Study Area.—Continued

Field No.	ICPMS Te, ppm	ICP40 Th, ppm	ICPMS Th, ppm	ICP40 Ti, %	ICPMS Ti, %	ICPMS Tl, ppm	ICPMS Tm, ppm	ICP40 U, ppm
00ELU01	< 0.1	11	12	0.28	0.3	0.9	0.36	<100
00ELU02	< 0.1	12	11	0.25	0.3	0.7	0.33	<100
00ELU03	< 0.1	12	11	0.24	0.2	0.7	0.31	<100
00ELU04	< 0.1	10	11	0.25	0.3	0.7	0.31	<100
00ELU05	< 0.1	11	12	0.27	0.3	0.7	0.33	<100
00ELU06	< 0.1	12	12	0.29	0.3	0.7	0.34	<100
00ELU07	< 0.1	12	12	0.30	0.4	0.7	0.34	<100
00ELU08	< 0.1	13	12	0.29	0.4	0.7	0.35	<100
00ELU09	< 0.1	12	12	0.31	0.4	0.8	0.34	<100
00ELU10	< 0.1	12	12	0.30	0.3	0.7	0.33	<100
00ELU11	< 0.1	12	11	0.27	0.3	0.7	0.32	<100
00ELU12	< 0.1	12	12	0.28	0.3	0.8	0.36	<100
00ELU13	< 0.1	10	10	0.24	0.3	0.6	0.30	<100
00ELU14	< 0.1	12	12	0.30	0.4	0.7	0.33	<100
00ELU15	< 0.1	11	12	0.28	0.3	0.8	0.32	<100
00ELU16	< 0.1	12	12	0.30	0.3	0.7	0.34	<100
00ELU17	< 0.1	11	12	0.30	0.3	0.7	0.35	<100
00ELU18	< 0.1	11	13	0.28	0.3	0.7	0.35	<100
00ELU19	< 0.1	11	12	0.31	0.4	0.7	0.33	<100
00ELU20	< 0.1	12	12	0.30	0.3	0.7	0.36	<100
00ELU21	< 0.1	11	12	0.28	0.3	0.7	0.33	<100
00ELU22	< 0.1	12	12	0.31	0.3	0.8	0.32	<100
00ELU23	< 0.1	12	11	0.29	0.3	0.7	0.33	<100
00ELU24	< 0.1	12	11	0.29	0.3	0.7	0.32	<100
00ELU25	< 0.1	11	11	0.29	0.3	0.7	0.33	<100
00ELU26	< 0.1	12	12	0.29	0.3	0.8	0.33	<100
00ELU27	< 0.1	11	12	0.30	0.4	0.8	0.35	<100
00ELU28	< 0.1	11	12	0.28	0.3	0.7	0.33	<100
00ELU29	< 0.1	10	12	0.29	0.4	0.7	0.34	<100
00ELU30	< 0.1	11	11	0.29	0.3	0.7	0.32	<100
Mean	< 0.1	11	12	0.28	0.3	0.7	0.33	<100
Stand. Dev. ^{##}	--	1	1	0.02	0.0	0.1	0.02	--
Field No.	ICPMS Te, ppm	ICP40 Th, ppm	ICPMS Th, ppm	ICP40 Ti, %	ICPMS Ti, %	ICPMS Tl, ppm	ICPMS Tm, ppm	ICP40 U, ppm
00ELUC1	< 0.1	11	12	0.29	0.4	0.8	0.30	<100
00ELUC2	< 0.1	11	12	0.29	0.4	0.8	0.31	<100
00ELUC3	< 0.1	11	13	0.30	0.4	0.7	0.32	<100
00ELUC4	< 0.1	10	12	0.29	0.4	0.7	0.31	<100
Mean	<0.1	11	12	0.29	0.4	0.8	0.31	<100
Stand. Dev.	--	1	1	--	--	0.1	0.01	--

Table 11. Analytical results for the 2000 individual subsamples from the Elbert County Upper Field, Deer Trail, CO Study Area.—Continued

Field No.	ICPMS U, ppm	ICP40 V, ppm	ICPMS V, ppm	ICPMS W, ppm	ICP40 Y, ppm	ICPMS Y, ppm	ICP40 Yb, ppm	ICPMS Yb, ppm
00ELU01	3.0	113	120	1.5	22	31	3	2.3
00ELU02	3.0	106	110	1.3	22	31	3	2.1
00ELU03	3.0	102	99	1.1	22	29	2	2.1
00ELU04	2.9	100	100	1.0	21	28	3	2.0
00ELU05	3.0	111	110	1.2	22	30	3	2.2
00ELU06	3.0	119	120	1.3	23	30	3	2.2
00ELU07	3.0	114	110	1.3	24	31	3	2.2
00ELU08	3.0	116	120	1.5	23	32	3	2.4
00ELU09	3.3	118	120	1.4	23	32	3	2.3
00ELU10	3.0	117	120	1.2	24	32	3	2.2
00ELU11	2.7	107	110	1.2	23	30	3	2.0
00ELU12	2.9	112	120	1.3	22	31	3	2.2
00ELU13	2.6	81	82	1.0	20	31	2	2.0
00ELU14	2.7	117	110	1.2	24	30	3	2.2
00ELU15	3.0	112	120	1.3	21	30	3	2.1
00ELU16	3.0	108	110	1.2	22	31	3	2.2
00ELU17	3.1	115	110	1.4	24	31	3	2.3
00ELU18	3.3	100	110	1.5	22	32	3	2.4
00ELU19	3.8	115	120	1.4	22	31	3	2.2
00ELU20	3.4	127	120	1.3	25	33	3	2.4
00ELU21	3.0	105	110	1.1	22	30	3	2.1
00ELU22	2.9	121	120	1.2	23	29	3	2.1
00ELU23	2.7	108	110	1.2	22	29	3	2.1
00ELU24	2.8	104	100	1.2	23	30	3	2.1
00ELU25	2.9	101	100	1.2	22	30	3	2.3
00ELU26	2.7	114	110	1.2	23	30	3	2.2
00ELU27	2.9	112	110	1.5	23	31	3	2.3
00ELU28	3.0	107	110	1.4	22	30	3	2.2
00ELU29	3.2	105	110	1.3	21	30	3	2.2
00ELU30	3.1	108	110	1.5	21	29	3	2.1
Mean	3.0	110	111	1.3	22	30	3	2.2
Stand. Dev. ^{##}	0.2	9	9	0.1	1	1	--	0.1
Field No.	ICPMS U, ppm	ICP40 V, ppm	ICPMS V, ppm	ICPMS W, ppm	ICP40 Y, ppm	ICPMS Y, ppm	ICP40 Yb, ppm	ICPMS Yb, ppm
00ELUC1	3.0	115	120	1.3	24	31	3	2.1
00ELUC2	3.1	113	120	1.4	24	31	3	2.1
00ELUC3	3.2	112	120	1.5	23	34	3	2.2
00ELUC4	3.1	112	120	1.4	23	31	3	2.1
Mean	3.1	113	120	1.4	24	32	3	2.13
Stand. Dev.	0.1	1	--	0.1	1	2	--	0.05

Table 11. Analytical results for the 2000 individual subsamples from the Elbert County Upper Field, Deer Trail, CO Study Area.—Continued

Field No.	ICP40 Zn, ppm	ICPMS Zn, ppm
00ELU01	87	97
00ELU02	88	99
00ELU03	93	97
00ELU04	88	96
00ELU05	92	100
00ELU06	95	100
00ELU07	93	92
00ELU08	94	100
00ELU09	96	100
00ELU10	93	99
00ELU11	88	94
00ELU12	87	96
00ELU13	64	70
00ELU14	89	95
00ELU15	84	96
00ELU16	87	99
00ELU17	95	98
00ELU18	81	93
00ELU19	89	98
00ELU20	116	120
00ELU21	81	89
00ELU22	88	95
00ELU23	85	89
00ELU24	82	87
00ELU25	82	91
00ELU26	96	100
00ELU27	87	96
00ELU28	84	94
00ELU29	86	96
00ELU30	90	96
Mean	89	96
Stand. Dev. ^{##}	8	7

Field No.	ICP40 Zn, ppm	ICPMS Zn, ppm
00ELUC1	92	100
00ELUC2	92	100
00ELUC3	90	100
00ELUC4	89	100
Mean	91	100
Stand. Dev.	2	--

Table 12. Analytical results for the 2000 individual subsamples from the Elbert County Middle Field, Deer Trail, CO Study Area.

Field No.	ICP40 Ag ppm	ICPMS Ag ppm	ICP40 Al %	ICPMS Al %	As Hyd As ppm	ICP40 As ppm	ICPMS As ppm	ICP40 Au ppm
00ELM01	<2	0.17	6.61	7.4	13.3	13	12.00	<8
00ELM02	<2	0.29	6.82	7.4	11.9	14	12.00	<8
00ELM03	<2	0.39	6.16	6.7	18.3	19	17.00	<8
00ELM04	<2	0.49	6.97	8.1	13.7	13	13.00	<8
00ELM05	<2	0.52	7.31	8.2	14.5	15	14.00	<8
00ELM06	<2	0.39	6.18	6.7	15.9	18	15.00	<8
00ELM07	<2	0.31	6.32	7.1	16.3	14	15.00	<8
00ELM08	<2	0.36	6.28	7.0	17.1	16	16.00	<8
00ELM09	<2	0.36	6.59	7.4	14.1	13	13.00	<8
00ELM10	<2	0.29	6.92	7.6	13.4	13	12.00	<8
00ELM11	<2	0.25	7.08	7.9	14.2	10	12.00	<8
00ELM12	<2	0.23	6.93	7.9	14.3	13	13.00	<8
00ELM13	<2	0.36	6.78	7.8	12.7	15	11.00	<8
00ELM14	<2	1.10	5.76	6.2	21.5	19	19.00	<8
00ELM15	<2	0.79	6.24	7.2	16.9	15	16.00	<8
00ELM16	<2	0.43	6.66	7.4	16.9	17	15.00	<8
00ELM17	<2	0.41	6.43	7.5	13.5	11	12.00	<8
00ELM18	<2	0.37	6.05	6.8	16.2	18	14.00	<8
00ELM19	<2	0.29	6.05	6.9	12.8	11	12.00	<8
00ELM20	<2	0.30	6.07	7.0	19.0	15	17.00	<8
00ELM21	<2	0.32	6.86	7.9	17.6	17	16.00	<8
00ELM22	<2	0.32	5.94	6.5	19.1	17	16.00	<8
00ELM23	<2	0.51	4.43	4.6	22.6	22	21.00	<8
00ELM24	<2	0.44	4.63	4.8	24.0	22	22.00	<8
00ELM25	<2	0.34	6.77	7.3	17.6	16	15.00	<8
00ELM26	<2	0.27	5.00	5.4	22.0	18	18.00	<8
00ELM27	<2	0.25	6.82	7.3	21.6	16	16.00	<8
00ELM28	<2	0.24	5.84	6.3	26.7	21	21.00	<8
00ELM29	<2	0.24	6.27	7.1	21.7	17	18.00	<8
00ELM30	<2	0.23	6.65	7.7	15.4	15	13.00	<8
Mean	<2	0.38	6.31	7.0	17.2	16	15.20	<8
Stand. Dev.##	--	0.18	0.68	0.9	3.8	3	2.96	--

Field No.	ICP40* Ag,ppm	ICPMS** Ag,ppm	ICP40 Al, %	ICPMS Al, %	HG-AAS# As, ppm	ICP40 As, ppm	ICPMS As, ppm	ICP40 Au, ppm
00ELMC1	<2	0.16	6.13	7.0	17.6	13	15	<8
00ELMC2	<2	0.21	6.40	6.9	17.2	13	14	<8
00ELMC3	<2	0.22	6.36	7.3	16.3	16	15	<8
00ELMC4	<2	0.25	6.29	7.4	15.2	13	15	<8
Mean	<2	0.21	6.29	7.2	16.6	14	15	<8
Stand. Dev.	--	0.04	0.12	0.2	1.1	2	1	--

* - ICP-AES determination after a total, four acid digestion

** - ICP-MS determination after a total, four acid digestion

*** - Cold Vapor - Atomic Absorption Spectrometry

- Hydride Generation - Atomic Absorption Spectrometry

- Standard Deviation

- Not Determined

Table 12. Analytical results for the 2000 individual subsamples from the Elbert County Middle Field, Deer Trail, CO Study Area.—Continued

Field No.	ICPMS Au ppm	ICP40 Ba ppm	ICPMS Ba ppm	ICP40 Be ppm	ICPMS Be ppm	ICP40 Bi ppm	ICPMS Bi ppm	ICP40 Ca %	ICPMS Ca %
00ELM01	< 0.05	698	800	1	2.3	<50	0.2	4.30	4.80
00ELM02	< 0.05	607	640	1	2	<50	0.5	1.63	1.70
00ELM03	< 0.05	650	720	1	2	<50	0.4	3.29	3.50
00ELM04	< 0.05	553	620	1	2.2	<50	0.5	3.15	3.70
00ELM05	< 0.05	600	660	1	2.1	<50	0.5	2.42	2.60
00ELM06	< 0.05	675	700	1	2.1	<50	0.3	2.65	2.80
00ELM07	< 0.05	609	670	1	2.2	<50	0.3	1.57	1.70
00ELM08	< 0.05	622	710	1	2.2	<50	0.4	2.24	2.40
00ELM09	< 0.05	599	660	1	2.2	<50	0.3	1.50	1.60
00ELM10	< 0.05	617	670	1	2	<50	0.3	1.86	2.00
00ELM11	< 0.05	586	640	1	2.5	<50	0.3	1.92	2.00
00ELM12	< 0.05	597	650	1	2.6	<50	0.3	1.43	1.60
00ELM13	< 0.05	554	640	1	1.9	<50	0.5	1.51	1.60
00ELM14	< 0.05	657	690	1	2.2	<50	1.0	1.97	2.00
00ELM15	< 0.05	558	650	1	2.4	<50	0.3	1.23	1.30
00ELM16	< 0.05	654	680	1	2.4	<50	0.3	0.63	0.66
00ELM17	< 0.05	597	670	1	2.9	<50	0.4	0.92	1.00
00ELM18	< 0.05	572	660	1	2	<50	0.3	2.35	2.60
00ELM19	< 0.05	576	650	1	2.2	<50	0.3	1.41	1.50
00ELM20	< 0.05	599	690	1	2.3	<50	0.4	0.90	0.98
00ELM21	< 0.05	571	630	1	2.3	<50	0.4	2.30	2.60
00ELM22	< 0.05	632	670	1	1.8	<50	0.3	1.28	1.30
00ELM23	< 0.05	747	800	1	1.7	<50	0.8	4.19	4.40
00ELM24	< 0.05	976	1200	1	1.9	<50	0.1	3.47	3.60
00ELM25	< 0.05	624	700	1	2.2	<50	0.3	1.83	1.90
00ELM26	< 0.05	713	800	1	1.6	<50	0.2	1.77	1.90
00ELM27	< 0.05	599	660	1	2.2	<50	0.3	1.87	1.90
00ELM28	< 0.05	626	690	1	1.8	<50	0.3	2.24	2.40
00ELM29	< 0.05	592	670	1	2.1	<50	0.4	1.25	1.40
00ELM30	< 0.05	559	650	1	2.6	<50	0.3	2.17	2.40
Mean	<0.05	627	698	1	2.16	<50	0.4	2.04	2.19
Stand. Dev. ^{##}	--	81	106	--	0.28	--	0.2	0.90	0.99
Field No.	ICPMS Au, ppm	ICP40 Ba, ppm	ICPMS Ba, ppm	ICP40 Be, ppm	ICPMS Be, ppm	ICP40 Bi, ppm	ICPMS Bi, ppm	ICP40 Ca, %	ICPMS Ca, %
00ELMC1	< 0.05	644	660	1	2.1	<50	0.4	1.96	2.4
00ELMC2	< 0.05	629	680	1	2.0	<50	0.4	2.08	2.4
00ELMC3	< 0.05	628	690	1	2.4	<50	0.4	2.07	2.4
00ELMC4	< 0.05	613	660	1	2.2	<50	0.4	2.05	2.5
Mean	<0.05	629	673	1	2.2	<50	0.4	2.04	2.4
Stand. Dev.	--	13	15	--	0.2	--	--	0.05	0.1

Table 12. Analytical results for the 2000 individual subsamples from the Elbert County Middle Field, Deer Trail, CO Study Area.—Continued

Field No.	ICP40 Cd ppm	ICPMS Cd ppm	ICP40 Ce ppm	ICPMS Ce ppm	ICP40 Co ppm	ICPMS Co ppm	ICP40 Cr ppm	ICPMS Cr ppm	ICPMS Cs ppm
00ELM01	<2	0.2	73	68	9	10	23	63	6.6
00ELM02	<2	0.2	75	74	9	11	30	62	6.3
00ELM03	<2	0.2	64	67	9	11	42	53	5.5
00ELM04	<2	0.2	63	68	9	12	54	70	7.2
00ELM05	<2	0.2	70	81	10	12	55	70	7.2
00ELM06	<2	0.2	75	88	10	11	36	51	5.2
00ELM07	<2	0.2	80	78	10	12	36	56	5.5
00ELM08	<2	0.2	73	74	11	13	23	55	5.6
00ELM09	<2	0.2	77	81	10	12	25	61	6.1
00ELM10	<2	0.2	81	77	11	12	32	61	6.1
00ELM11	<2	0.2	79	83	11	13	57	66	6.6
00ELM12	<2	0.2	82	88	12	13	30	68	6.7
00ELM13	<2	0.3	81	89	11	12	36	66	6.6
00ELM14	<2	0.3	75	68	8	11	40	46	4.3
00ELM15	<2	0.2	71	76	10	12	46	60	5.9
00ELM16	<2	0.2	80	75	11	12	41	58	5.8
00ELM17	<2	0.2	73	79	9	11	35	60	6.0
00ELM18	<2	0.2	73	79	10	13	26	54	5.2
00ELM19	<2	0.2	76	77	9	11	19	53	5.2
00ELM20	<2	0.3	70	79	10	12	26	57	5.6
00ELM21	<2	0.2	71	74	11	12	31	68	6.8
00ELM22	<2	0.2	70	68	11	12	30	52	5.1
00ELM23	<2	0.3	55	54	8	11	27	28	2.8
00ELM24	<2	0.3	55	54	10	11	25	27	2.9
00ELM25	<2	0.2	75	69	11	12	36	61	6.3
00ELM26	<2	0.2	64	60	9	10	30	39	3.8
00ELM27	<2	0.2	73	75	11	12	29	61	6.6
00ELM28	<2	0.2	75	72	11	13	24	52	5.0
00ELM29	<2	0.2	68	74	10	12	28	59	5.9
00ELM30	<2	0.2	67	76	10	12	24	67	6.7
Mean	<2	0.2	72	74	10	12	33	57	5.7
Stand. Dev.##	--	--	7	9	1	1	10	11	1.1
Field No.	ICP40 Cd, ppm	ICPMS Cd, ppm	ICP40 Ce, ppm	ICPMS Ce, ppm	ICP40 Co, ppm	ICPMS Co, ppm	ICP40 Cr, ppm	ICPMS Cr, ppm	ICPMS Cs, ppm
00ELMC1	<2	0.2	69	69	10	12	42	56	5.5
00ELMC2	<2	0.2	72	68	11	12	25	56	5.5
00ELMC3	<2	0.2	67	71	10	12	23	57	5.6
00ELMC4	<2	0.3	66	71	10	12	26	59	5.5
Mean	<2	0.2	69	70	10	12	29	57	5.5
Stand. Dev.	--	--	3	2	1	--	9	1	--

Table 12. Analytical results for the 2000 individual subsamples from the Elbert County Middle Field, Deer Trail, CO Study Area.—Continued

Field No.	ICP40 Cu ppm	ICPMS Cu ppm	ICPMS Dy ppm	ICPMS Er ppm	ICP40 Eu ppm	ICPMS Eu ppm	ICP40 Fe %	ICPMS Fe %	ICP40 Ga ppm
00ELM01	21	20	4.0	2.0	<2	1.0	3.27	3.8	18
00ELM02	31	30	4.4	2.2	<2	1.1	3.16	3.5	17
00ELM03	28	30	4.1	2.0	<2	1.0	4.19	4.6	18
00ELM04	26	30	4.1	2.1	<2	1.1	3.41	3.9	18
00ELM05	30	30	4.6	2.1	<2	1.1	3.70	4.1	17
00ELM06	23	20	4.7	2.2	<2	1.2	3.71	4.0	17
00ELM07	25	20	4.5	2.2	<2	1.2	3.60	3.8	17
00ELM08	28	30	4.6	2.3	<2	1.2	3.67	4.1	16
00ELM09	24	20	4.6	2.2	<2	1.2	3.13	3.5	16
00ELM10	24	20	4.4	2.2	<2	1.1	3.38	3.6	18
00ELM11	25	20	4.5	2.3	<2	1.2	3.38	3.7	19
00ELM12	26	30	4.6	2.3	<2	1.2	3.30	3.7	17
00ELM13	25	30	4.5	2.3	<2	1.2	3.11	3.5	18
00ELM14	43	42	4.1	2.1	<2	1.1	4.23	4.7	15
00ELM15	24	30	4.4	2.1	<2	1.1	3.43	4.0	16
00ELM16	25	20	4.5	2.3	<2	1.1	3.68	4.0	17
00ELM17	24	30	4.5	2.1	<2	1.2	3.02	3.4	17
00ELM18	25	20	4.4	2.2	<2	1.1	3.24	3.5	17
00ELM19	21	20	4.2	2.1	<2	1.1	2.59	3.1	16
00ELM20	27	30	4.6	2.3	<2	1.2	3.84	4.2	17
00ELM21	27	30	4.6	2.1	<2	1.1	3.63	4.2	17
00ELM22	25	20	4.0	2.0	<2	1.1	3.77	4.1	16
00ELM23	27	30	3.4	1.8	<2	0.9	4.38	4.8	12
00ELM24	19	20	3.5	1.8	<2	1.0	4.96	5.3	13
00ELM25	25	20	4.3	2.1	<2	1.1	3.96	4.2	18
00ELM26	19	20	3.6	1.8	<2	1.0	4.07	4.5	15
00ELM27	25	30	4.3	2.2	<2	1.2	3.84	4.2	18
00ELM28	28	30	4.5	2.2	<2	1.1	4.53	4.9	16
00ELM29	28	30	4.6	2.2	<2	1.2	3.92	4.5	18
00ELM30	23	20	4.7	2.2	<2	1.2	3.09	3.6	17
Mean	26	26	4.3	2.1	<2	1.1	3.64	4.0	17
Stand. Dev. ^{##}	4	6	0.3	0.1	--	0.1	0.51	0.5	1
Field No.	ICP40 Cu, ppm	ICPMS Cu, ppm	ICPMS Dy, ppm	ICPMS Er, ppm	ICP40 Eu, ppm	ICPMS Eu, ppm	ICP40 Fe, %	ICPMS Fe, %	ICP40 Ga, ppm
00ELMC1	25	20	4.3	2.2	<2	1.1	3.62	4.3	15
00ELMC2	27	20	4.2	2.1	<2	1.1	3.6	4.2	16
00ELMC3	26	30	4.3	2.2	<2	1.1	3.6	4.3	16
00ELMC4	25	30	4.4	2.2	<2	1.1	3.65	4.4	17
Mean	26	25	4.3	2.2	<2	1.1	3.62	4.3	16
Stand. Dev.	1	6	0.1	--	--	--	0.02	0.1	1

Table 12. Analytical results for the 2000 individual subsamples from the Elbert County Middle Field, Deer Trail, CO Study Area.—Continued

Field No.	ICPMS Ga ppm	ICPMS Gd ppm	ICPMS Ge ppm	Hg CVAA Hg ppm	ICP40 Ho ppm	ICPMS Ho ppm	ICPMS In ppm	ICP40 K %	ICPMS K %
00ELM01	14	4.7	1.1	0.03	<4	0.64	< 0.1	2.18	2.3
00ELM02	14	5.1	1.3	0.03	<4	0.70	< 0.1	2.32	2.4
00ELM03	12	4.8	1.1	0.11	<4	0.67	< 0.1	2.21	2.2
00ELM04	16	4.8	1.3	0.15	<4	0.69	< 0.1	2.18	2.3
00ELM05	15	6.1	1.3	0.15	<4	0.71	< 0.1	2.33	2.4
00ELM06	12	5.8	1.2	0.04	<4	0.73	< 0.1	2.28	2.3
00ELM07	13	5.3	1.2	0.03	<4	0.73	< 0.1	2.30	2.4
00ELM08	13	5.2	1.2	0.10	<4	0.71	< 0.1	2.20	2.3
00ELM09	14	5.5	1.3	0.03	<4	0.71	< 0.1	2.24	2.4
00ELM10	14	5.3	1.2	0.02	<4	0.73	< 0.1	2.35	2.4
00ELM11	15	5.6	1.3	0.03	<4	0.73	< 0.1	2.27	2.4
00ELM12	15	5.9	1.2	0.02	<4	0.75	< 0.1	2.22	2.4
00ELM13	14	5.7	1.3	0.19	<4	0.73	< 0.1	2.17	2.3
00ELM14	11	4.8	1.1	0.54	<4	0.65	< 0.1	2.26	2.3
00ELM15	13	5.1	1.3	0.06	<4	0.70	< 0.1	2.21	2.4
00ELM16	14	5.3	1.3	0.04	<4	0.74	< 0.1	2.42	2.5
00ELM17	14	5.2	1.4	0.09	<4	0.69	< 0.1	2.27	2.5
00ELM18	12	5.3	1.2	0.04	<4	0.69	< 0.1	2.26	2.4
00ELM19	12	5.2	1.3	0.03	<4	0.69	< 0.1	2.24	2.4
00ELM20	13	5.4	1.4	0.06	<4	0.72	< 0.1	2.22	2.4
00ELM21	14	5.0	1.2	0.07	<4	0.68	< 0.1	2.25	2.4
00ELM22	12	4.7	1.2	0.05	<4	0.67	< 0.1	2.26	2.3
00ELM23	8	3.9	1.0	0.19	<4	0.55	< 0.1	2.10	2.0
00ELM24	9	3.9	1.0	0.10	<4	0.56	< 0.1	2.28	2.3
00ELM25	14	4.9	1.3	0.06	<4	0.67	< 0.1	2.31	2.4
00ELM26	10	4.2	1.1	0.06	<4	0.58	< 0.1	2.19	2.2
00ELM27	14	5.0	1.3	0.05	<4	0.69	< 0.1	2.37	2.4
00ELM28	12	5.2	1.2	0.06	<4	0.72	< 0.1	2.20	2.3
00ELM29	13	5.3	1.3	0.06	<4	0.73	< 0.1	2.18	2.3
00ELM30	14	5.2	1.3	0.02	<4	0.71	< 0.1	2.18	2.4
Mean	13	5.1	1.2	0.08	<4	0.69	< 0.1	2.25	2.3
Stand. Dev. ^{##}	2	0.5	0.1	0.10	--	0.05	--	0.07	0.1

Field No.	ICPMS Ga, ppm	ICPMS Gd, ppm	ICPMS Ge, ppm	CV-AAS*** Hg, ppm	ICP40 Ho, ppm	ICPMS Ho, ppm	ICPMS In, ppm	ICP40 K, %	ICPMS K, %
00ELMC1	14	5.1	1.4	0.04	<4	0.69	< 0.1	2.21	2.4
00ELMC2	14	5.1	1.4	0.04	<4	0.69	< 0.1	2.27	2.4
00ELMC3	14	5.2	1.3	0.05	<4	0.70	< 0.1	2.28	2.6
00ELMC4	15	5.3	1.4	0.04	<4	0.71	< 0.1	2.26	2.6
Mean	14	5.2	1.4	0.04	<4	0.70	< 0.1	2.26	2.5
Stand. Dev.	1	0.1	--	--	--	0.01	--	0.03	0.1

Table 12. Analytical results for the 2000 individual subsamples from the Elbert County Middle Field, Deer Trail, CO Study Area.—Continued

Field No.	ICP40 La ppm	ICPMS La ppm	ICP40 Li ppm	ICPMS Li ppm	ICP40 Mg %	ICPMS Mg %	ICP40 Mn ppm	ICPMS Mn ppm	ICP40 Mo ppm
00ELM01	36	38	40	40	1.09	1.4	262	270	<2
00ELM02	35	42	37	36	0.98	1.2	319	340	<2
00ELM03	35	39	33	32	0.80	0.9	473	520	3
00ELM04	32	39	47	47	1.13	1.4	277	300	<2
00ELM05	36	45	47	46	1.27	1.5	341	370	3
00ELM06	40	49	33	30	0.86	0.9	395	420	3
00ELM07	40	43	33	33	0.87	1.1	397	430	2
00ELM08	37	42	34	34	0.94	1.1	445	500	2
00ELM09	38	45	36	36	1.01	1.2	344	380	<2
00ELM10	41	43	38	37	1.10	1.3	357	390	<2
00ELM11	39	46	41	40	1.12	1.3	326	360	<2
00ELM12	41	45	39	40	1.14	1.3	335	350	<2
00ELM13	38	45	39	39	1.16	1.4	290	340	<2
00ELM14	41	39	27	25	0.68	0.7	513	560	3
00ELM15	35	42	32	34	0.84	1.1	338	410	2
00ELM16	41	42	34	33	0.82	0.9	411	410	2
00ELM17	36	44	33	35	0.88	1.1	304	350	2
00ELM18	38	44	32	32	0.90	1.1	330	370	<2
00ELM19	37	43	30	31	0.90	1.1	285	320	<2
00ELM20	36	48	30	32	0.75	0.9	400	450	3
00ELM21	37	42	41	42	1.18	1.4	325	360	2
00ELM22	36	39	30	30	0.79	0.9	447	470	2
00ELM23	30	31	16	15	0.58	0.6	608	610	3
00ELM24	31	32	17	16	0.82	0.9	720	740	3
00ELM25	36	39	40	37	1.12	1.3	451	490	2
00ELM26	34	35	21	21	0.58	0.7	449	510	3
00ELM27	38	42	40	38	1.03	1.2	394	420	2
00ELM28	39	41	30	29	0.77	0.8	459	490	3
00ELM29	36	42	34	35	0.81	0.9	375	410	3
00ELM30	35	43	40	41	1.14	1.4	271	290	2
Mean	37	42	34	34	0.93	1.1	388	421	3
Stand. Dev.##	3	4	7	7	0.18	0.2	101	101	1
Field No.	ICP40 La, ppm	ICPMS La, ppm	ICP40 Li, ppm	ICPMS Li, ppm	ICP40 Mg, %	ICPMS Mg, %	ICP40 Mn, ppm	ICPMS Mn, ppm	ICP40 Mo, ppm
00ELMC1	35	39	33	36	0.90	1.1	406	460	2
00ELMC2	37	38	34	36	0.97	1.1	379	440	2
00ELMC3	35	40	34	36	0.92	1.1	385	460	2
00ELMC4	36	40	33	37	0.89	1.2	377	460	2
Mean	36	39	34	36	0.92	1.1	387	455	2
Stand. Dev.	1	1	1	1	0.03	0.1	13	10	--

Table 12. Analytical results for the 2000 individual subsamples from the Elbert County Middle Field, Deer Trail, CO Study Area.—Continued

Field No.	ICPMS Mo ppm	ICP40 Na %	ICPMS Na %	ICP40 Nb ppm	ICPMS Nb ppm	ICP40 Nd ppm	ICPMS Nd ppm	ICP40 Ni ppm	ICPMS Ni ppm
00ELM01	1.3	0.53	0.54	11	13	38	32	22	27
00ELM02	1.6	0.68	0.68	12	13	35	35	23	26
00ELM03	2.0	0.59	0.60	11	11	32	32	23	26
00ELM04	1.6	0.53	0.57	9	14	31	32	24	30
00ELM05	2.1	0.58	0.60	11	13	32	38	26	31
00ELM06	1.9	0.69	0.70	11	13	34	41	21	25
00ELM07	1.5	0.72	0.76	10	13	38	36	22	26
00ELM08	1.7	0.67	0.71	11	12	32	34	23	28
00ELM09	1.4	0.68	0.73	12	14	35	38	22	28
00ELM10	1.3	0.73	0.75	12	14	38	36	24	27
00ELM11	1.3	0.66	0.69	10	14	37	38	25	29
00ELM12	1.3	0.65	0.70	12	14	35	38	25	29
00ELM13	1.5	0.64	0.68	12	14	37	38	23	28
00ELM14	2.5	0.69	0.69	9	12	35	31	21	26
00ELM15	1.6	0.64	0.70	11	13	35	35	23	27
00ELM16	1.6	0.68	0.72	11	13	38	36	24	26
00ELM17	1.4	0.68	0.75	11	13	34	37	21	26
00ELM18	1.4	0.69	0.73	11	13	36	36	21	28
00ELM19	1.1	0.71	0.77	10	13	34	35	19	23
00ELM20	2.1	0.65	0.71	11	14	33	37	23	28
00ELM21	1.8	0.57	0.61	11	14	33	34	25	31
00ELM22	1.6	0.67	0.69	11	11	34	32	21	26
00ELM23	2.3	0.71	0.68	11	9	27	26	17	20
00ELM24	2.2	0.79	0.76	8	8	29	26	17	22
00ELM25	1.6	0.65	0.68	11	12	32	33	29	34
00ELM26	1.9	0.69	0.72	10	10	31	29	17	21
00ELM27	1.6	0.63	0.64	12	14	34	35	24	29
00ELM28	2.2	0.65	0.67	11	13	35	34	23	28
00ELM29	2.0	0.61	0.64	11	14	33	35	23	29
00ELM30	1.6	0.62	0.67	11	15	32	36	24	29
Mean	1.7	0.65	0.68	11	13	34	35	23	27
Stand. Dev.##	0.3	0.06	0.06	1	2	3	3	3	3
Field No.	ICPMS Mo, ppm	ICP40 Na, %	ICPMS Na, %	ICP40 Nb, ppm	ICPMS Nb, ppm	ICP40 Nd, ppm	ICPMS Nd, ppm	ICP40 Ni, ppm	ICPMS Ni, ppm
00ELMC1	1.7	0.65	0.70	9	12	33	32	22	26
00ELMC2	1.7	0.65	0.68	12	13	35	31	23	26
00ELMC3	1.6	0.66	0.71	10	13	33	34	21	27
00ELMC4	1.7	0.65	0.74	10	13	32	34	21	27
Mean	1.7	0.65	0.71	10	13	33	33	22	27
Stand. Dev.	0.1	0.01	0.03	1	1	1	2	1	1

Table 12. Analytical results for the 2000 individual subsamples from the Elbert County Middle Field, Deer Trail, CO Study Area.—Continued

Field No.	ICP40 P %	ICPMS P %	ICP40 Pb ppm	ICPMS Pb ppm	ICPMS Pr ppm	ICPMS Rb ppm	ICPMS Re ppm	ICPMS Sb ppm	ICP40 Sc ppm
00ELM01	0.07	0.08	24	23	7.7	100	< 0.05	0.9	10
00ELM02	0.10	0.12	28	28	8.4	100	< 0.05	1.1	10
00ELM03	0.09	0.11	27	27	7.8	95	< 0.05	1.1	9
00ELM04	0.08	0.10	23	26	7.8	100	< 0.05	1.1	11
00ELM05	0.09	0.11	26	28	9.3	110	< 0.05	1.1	11
00ELM06	0.07	0.09	28	28	10.0	93	< 0.05	1.0	9
00ELM07	0.08	0.10	28	30	9.0	97	< 0.05	1.0	9
00ELM08	0.10	0.11	27	29	8.4	96	< 0.05	1.0	9
00ELM09	0.08	0.10	24	26	9.1	100	< 0.05	0.9	10
00ELM10	0.08	0.09	24	26	8.8	100	< 0.05	0.9	10
00ELM11	0.08	0.10	24	26	9.2	100	< 0.05	0.9	11
00ELM12	0.08	0.09	26	28	9.3	110	< 0.05	1.0	11
00ELM13	0.09	0.12	27	29	9.1	100	< 0.05	1.0	10
00ELM14	0.16	0.18	30	31	7.8	91	< 0.05	1.8	8
00ELM15	0.08	0.10	26	29	8.5	100	< 0.05	1.1	9
00ELM16	0.07	0.08	27	28	8.5	100	< 0.05	1.0	10
00ELM17	0.08	0.11	24	27	8.9	100	< 0.05	0.9	9
00ELM18	0.08	0.10	27	28	8.8	92	< 0.05	1.0	9
00ELM19	0.08	0.09	23	25	8.5	94	< 0.05	0.8	9
00ELM20	0.08	0.10	28	29	8.9	100	< 0.05	1.2	9
00ELM21	0.08	0.10	25	28	8.2	100	< 0.05	1.1	10
00ELM22	0.08	0.10	28	28	7.7	96	< 0.05	1.0	9
00ELM23	0.11	0.13	27	27	6.3	78	< 0.05	1.1	5
00ELM24	0.07	0.09	28	29	6.4	88	< 0.05	1.1	5
00ELM25	0.08	0.09	28	28	8.0	100	< 0.05	1.1	10
00ELM26	0.07	0.08	27	28	6.9	88	< 0.05	1.0	6
00ELM27	0.08	0.09	27	28	8.5	110	< 0.05	1.0	10
00ELM28	0.07	0.09	35	32	8.2	94	< 0.05	1.3	9
00ELM29	0.07	0.09	26	30	8.6	100	< 0.05	1.2	9
00ELM30	0.07	0.09	24	26	8.6	100	< 0.05	1.1	10
Mean	0.08	0.10	27	28	8.4	98	< 0.05	1.1	9
Stand. Dev. ^{##}	0.02	0.02	2	2	0.8	7	--	0.2	2

Field No.	ICP40 P, %	ICPMS P, %	ICP40 Pb, ppm	ICPMS Pb, ppm	ICPMS Pr, ppm	ICPMS Rb, ppm	ICPMS Re, ppm	ICPMS Sb, ppm	ICP40 Sc, ppm
00ELMC1	0.08	0.1	26	28	7.9	100	< 0.05	1.2	9
00ELMC2	0.09	0.1	28	28	7.7	100	< 0.05	1.2	10
00ELMC3	0.08	0.1	25	28	8.3	110	< 0.05	1.2	9
00ELMC4	0.08	0.1	25	28	8.2	110	< 0.05	1.2	9
Mean	0.08	0.1	26	28	8.0	105	< 0.05	1.2	9
Stand. Dev.	--	--	1	--	0.3	6	--	--	1

Table 12. Analytical results for the 2000 individual subsamples from the Elbert County Middle Field, Deer Trail, CO Study Area.—Continued

Field No.	ICPMS Sc ppm	ICPMS Se ppm	Se Hyd Se ppm	ICPMS Sm ppm	ICP40 Sn ppm	ICPMS Sn ppm	ICP40 Sr ppm	ICPMS Sr ppm	ICP40 Ta ppm
00ELM01	10	< 1	1.1	5.6	<50	2	138	120	<40
00ELM02	10	< 1	0.9	6.0	<50	3	132	110	<40
00ELM03	9	< 1	1.4	5.6	<50	2	137	120	<40
00ELM04	11	< 1	1.0	5.7	<50	2	265	280	<40
00ELM05	11	< 1	1.1	6.9	<50	2	143	120	<40
00ELM06	9	< 1	1.2	7.0	<50	2	146	120	<40
00ELM07	10	< 1	1.0	6.2	<50	2	141	120	<40
00ELM08	10	< 1	1.2	6.0	<50	2	151	130	<40
00ELM09	10	< 1	1.0	6.6	<50	2	139	120	<40
00ELM10	10	< 1	0.8	6.3	<50	2	151	130	<40
00ELM11	11	< 1	0.9	6.5	<50	2	147	130	<40
00ELM12	11	< 1	0.9	6.6	<50	2	135	120	<40
00ELM13	11	< 1	1.2	6.7	<50	2	125	110	<40
00ELM14	8	1	1.7	5.5	<50	3	127	110	<40
00ELM15	10	< 1	1.1	5.8	<50	2	109	98	<40
00ELM16	10	< 1	1.2	6.3	<50	2	122	100	<40
00ELM17	10	< 1	1.1	6.3	<50	2	125	120	<40
00ELM18	9	< 1	0.9	6.3	<50	2	151	130	<40
00ELM19	9	< 1	0.7	6.1	<50	2	132	120	<40
00ELM20	9	< 1	1.2	6.3	<50	2	120	110	<40
00ELM21	11	< 1	1.1	5.9	<50	2	126	110	<40
00ELM22	9	< 1	1.0	5.4	<50	2	121	100	<40
00ELM23	5	< 1	1.5	4.5	<50	2	146	120	<40
00ELM24	5	< 1	1.4	4.4	<50	1	147	130	<40
00ELM25	10	< 1	1.3	5.7	<50	2	134	120	<40
00ELM26	7	< 1	1.4	5.0	<50	1	128	110	<40
00ELM27	10	< 1	1.2	6.1	<50	2	116	100	<40
00ELM28	9	< 1	1.6	6.0	<50	2	126	110	<40
00ELM29	10	< 1	1.4	6.1	<50	2	118	110	<40
00ELM30	11	< 1	1.1	6.0	<50	2	147	140	<40
Mean	9	1.00	1.2	6.0	<50	2	138	122	<40
Stand. Dev. ^{##}	2	--	0.2	0.6	--	--	27	32	--
Field No.	ICPMS Sc, ppm	ICPMS Se, ppm	HGAAS Se, ppm	ICPMS Sm, ppm	ICP40 Sn, ppm	ICPMS Sn, ppm	ICP40 Sr, ppm	ICPMS Sr, ppm	ICP40 Ta, ppm
00ELMC1	9.3	1	1.2	5.6	<50	2	132	130	<40
00ELMC2	9.3	1	1.2	5.5	<50	2	140	130	<40
00ELMC3	9.7	< 1	1.2	5.8	<50	2	139	150	<40
00ELMC4	10.0	< 1	1.2	6.0	<50	2	141	130	<40
Mean	9.6	1	1.2	5.7	<50	2	138	135	<40
Stand. Dev.	0.3	--	--	0.2	--	--	4	10	--

Table 12. Analytical results for the 2000 individual subsamples from the Elbert County Middle Field, Deer Trail, CO Study Area.—Continued

Field No.	ICPMS Tb ppm	ICPMS Te ppm	ICP40 Th ppm	ICPMS Th ppm	ICP40 Ti %	ICPMS Ti %	ICPMS Tl ppm	ICPMS Tm ppm	ICP40 U ppm
00ELM01	0.60	< 0.1	13	10	0.26	0.3	0.7	0.28	<100
00ELM02	0.67	< 0.1	12	12	0.28	0.3	0.7	0.30	<100
00ELM03	0.62	< 0.1	7	10	0.23	0.3	0.7	0.29	<100
00ELM04	0.66	< 0.1	9	11	0.26	0.4	0.8	0.29	<100
00ELM05	0.73	< 0.1	10	14	0.29	0.4	0.8	0.31	<100
00ELM06	0.73	< 0.1	10	14	0.26	0.3	0.7	0.30	<100
00ELM07	0.69	< 0.1	12	12	0.26	0.3	0.7	0.31	<100
00ELM08	0.67	< 0.1	10	11	0.26	0.3	0.7	0.32	<100
00ELM09	0.70	< 0.1	11	13	0.28	0.4	0.7	0.30	<100
00ELM10	0.70	< 0.1	10	12	0.28	0.4	0.7	0.32	<100
00ELM11	0.77	< 0.1	13	13	0.28	0.4	0.8	0.33	<100
00ELM12	0.71	< 0.1	12	13	0.28	0.4	0.8	0.32	<100
00ELM13	0.74	< 0.1	13	12	0.28	0.4	0.8	0.32	<100
00ELM14	0.61	< 0.1	12	11	0.22	0.3	0.7	0.29	<100
00ELM15	0.66	< 0.1	10	11	0.26	0.3	0.7	0.30	<100
00ELM16	0.69	< 0.1	11	12	0.27	0.3	0.7	0.31	<100
00ELM17	0.66	< 0.1	11	12	0.27	0.4	0.7	0.33	<100
00ELM18	0.67	< 0.1	11	12	0.25	0.3	0.7	0.30	<100
00ELM19	0.64	< 0.1	11	11	0.26	0.3	0.7	0.31	<100
00ELM20	0.69	< 0.1	11	12	0.26	0.3	0.7	0.32	<100
00ELM21	0.65	< 0.1	12	11	0.27	0.4	0.8	0.30	<100
00ELM22	0.60	< 0.1	10	10	0.24	0.3	0.7	0.29	<100
00ELM23	0.50	< 0.1	<6	8	0.17	0.2	0.6	0.25	<100
00ELM24	0.52	< 0.1	9	8	0.15	0.2	0.6	0.25	<100
00ELM25	0.63	< 0.1	10	10	0.27	0.3	0.8	0.29	<100
00ELM26	0.54	< 0.1	9	9	0.19	0.2	0.6	0.26	<100
00ELM27	0.71	< 0.1	9	12	0.27	0.3	0.8	0.30	<100
00ELM28	0.67	< 0.1	12	11	0.24	0.3	0.7	0.31	<100
00ELM29	0.69	< 0.1	11	12	0.25	0.3	0.7	0.32	<100
00ELM30	0.68	< 0.1	10	12	0.26	0.4	0.7	0.31	<100
Mean	0.66	< 0.1	11	11	0.25	0.3	0.7	0.30	<100
Stand. Dev. ^{##}	0.06	--	1	2	0.03	0.1	0.1	0.02	--
Field No.	ICPMS Tb, ppm	ICPMS Te, ppm	ICP40 Th, ppm	ICPMS Th, ppm	ICP40 Ti, %	ICPMS Ti, %	ICPMS Tl, ppm	ICPMS Tm, ppm	ICP40 U, ppm
00ELMC1	0.66	< 0.1	10	12	0.24	0.3	0.7	0.30	<100
00ELMC2	0.65	< 0.1	10	12	0.27	0.3	0.7	0.29	<100
00ELMC3	0.67	< 0.1	9	12	0.26	0.3	0.7	0.30	<100
00ELMC4	0.68	< 0.1	10	12	0.24	0.3	0.7	0.31	<100
Mean	0.67	<0.1	10	12	0.25	0.3	0.7	0.30	<100
Stand. Dev.	0.01	--	1	--	0.01	--	--	0.01	--

Table 12. Analytical results for the 2000 individual subsamples from the Elbert County Middle Field, Deer Trail, CO Study Area.—Continued

Field No.	ICPMS U ppm	ICP40 V ppm	ICPMS V ppm	ICPMS W ppm	ICP40 Y ppm	ICPMS Y ppm	ICP40 Yb ppm	ICPMS Yb ppm	ICP40 Zn ppm
00ELM01	3.1	105	120	1	22	28	3	1.9	75
00ELM02	3.6	105	110	1	22	30	3	2.0	92
00ELM03	3.6	98	100	3	22	29	2	2.0	91
00ELM04	4.0	116	130	2	21	29	3	2.1	92
00ELM05	4.2	118	130	1	23	31	2	2.1	99
00ELM06	3.8	93	98	1	23	36	2	2.0	85
00ELM07	3.3	98	110	1	23	31	2	2.1	89
00ELM08	3.9	100	110	1	24	32	2	2.4	91
00ELM09	3.4	102	110	1	23	31	3	2.1	86
00ELM10	3.3	105	110	1	24	31	3	2.1	88
00ELM11	3.3	111	120	1	23	32	3	2.2	93
00ELM12	3.2	113	120	1	24	32	3	2.2	92
00ELM13	3.5	105	120	1	23	32	3	2.2	91
00ELM14	4.9	92	96	1	23	29	2	1.9	102
00ELM15	3.2	97	120	1	22	30	3	2.1	83
00ELM16	3.2	107	110	1	24	32	3	2.1	92
00ELM17	3.3	98	110	1	21	30	3	2.1	85
00ELM18	3.2	94	100	1	22	30	3	2.1	81
00ELM19	2.9	87	97	1	22	29	3	2.0	77
00ELM20	3.4	97	110	1	23	32	3	2.3	94
00ELM21	3.5	116	130	1	23	30	2	2.0	93
00ELM22	3.3	97	100	1	22	29	2	1.9	88
00ELM23	4.5	63	67	1	19	25	2	1.6	81
00ELM24	3.2	64	67	1	20	25	2	1.7	74
00ELM25	3.4	110	120	1	23	30	2	2.1	95
00ELM26	3.0	75	82	1	19	25	2	1.7	75
00ELM27	3.2	110	120	1	23	31	2	2.0	94
00ELM28	3.5	98	100	1	24	32	2	2.1	92
00ELM29	3.5	105	120	1	23	31	2	2.2	89
00ELM30	3.4	106	120	1	22	31	3	2.1	84
Mean	3.5	100	109	1	22	30	3	2.0	88
Stand. Dev. ^{##}	0.4	13	16	--	1	2	1	0.2	7

Field No.	ICPMS U, ppm	ICP40 V, ppm	ICPMS V, ppm	ICPMS W, ppm	ICP40 Y, ppm	ICPMS Y, ppm	ICP40 Yb, ppm	ICPMS Yb, ppm	ICP40 Zn, ppm
00ELMC1	3.5	97	100	1.3	23	30	2	2.1	88
00ELMC2	3.5	101	100	1.3	23	32	2	2	90
00ELMC3	3.5	98	110	1.3	23	31	2	2.2	85
00ELMC4	3.7	96	110	1.4	21	31	2	2	85
Mean	3.6	98	105	1.3	23	31	2	2.08	87
Stand. Dev.	0.1	2	6	--	1	1	--	0.10	2

Table 12. Analytical results for the 2000 individual subsamples from the Elbert County Middle Field, Deer Trail, CO Study Area.—Continued

Field No.	ICPMS Zn ppm
00ELM01	87
00ELM02	97
00ELM03	95
00ELM04	100
00ELM05	100
00ELM06	88
00ELM07	96
00ELM08	98
00ELM09	96
00ELM10	92
00ELM11	96
00ELM12	100
00ELM13	100
00ELM14	110
00ELM15	98
00ELM16	96
00ELM17	94
00ELM18	88
00ELM19	82
00ELM20	100
00ELM21	100
00ELM22	94
00ELM23	85
00ELM24	82
00ELM25	98
00ELM26	83
00ELM27	98
00ELM28	100
00ELM29	100
00ELM30	95
Mean	95
Stand. Dev. ^{##}	6

Field No.	ICPMS Zn, ppm
00ELMC1	100
00ELMC2	99
00ELMC3	100
00ELMC4	100
Mean	100
Stand. Dev.	1

Table 13. Analytical results for the 2000 individual subsamples from the Elbert County Lower Field, Deer Trail, CO Study Area.

Field No.	ICP40* Ag, ppm	ICPMS** Ag, ppm	ICP40 Al, %	ICPMS Al, %	HG-AAS# As, ppm	ICP40 As, ppm	ICPMS As, ppm	ICP40 Au, ppm
00ELL01	<2	0.27	5.78	6.0	14.2	15	12	<8
00ELL02	<2	0.22	6.02	6.2	14.9	15	13	<8
00ELL03	<2	0.20	6.02	6.1	12.1	14	11	<8
00ELL04	<2	0.17	5.88	6.0	17.1	15	15	<8
00ELL05	<2	0.16	5.26	5.4	22.5	23	19	<8
00ELL06	<2	0.20	6.32	6.3	10.1	13	9	<8
00ELL07	<2	0.16	6.07	6.0	10.0	12	8	<8
00ELL08	<2	0.17	5.94	5.6	9.0	12	8	<8
00ELL09	<2	0.15	5.79	6.1	14.5	16	14	<8
00ELL10	<2	0.16	5.77	5.9	12.4	17	12	<8
00ELL11	<2	0.13	5.24	5.4	16.1	18	15	<8
00ELL12	<2	0.17	8.32	8.6	10.7	10	10	<8
00ELL13	<2	0.15	6.49	6.8	15.2	13	14	<8
00ELL14	<2	0.14	7.33	7.6	16.5	14	16	<8
00ELL15	<2	0.14	5.23	5.5	15.1	14	14	<8
00ELL16	<2	0.13	5.32	5.5	10.7	15	10	<8
00ELL17	<2	0.12	4.79	5.1	14.9	18	17	<8
00ELL18	<2	0.12	4.92	5.3	16.5	16	16	<8
00ELL19	<2	0.14	6.19	7.0	10.2	15	10	<8
00ELL20	<2	0.12	4.71	5.0	20.3	19	18	<8
00ELL21	<2	0.12	4.94	5.6	20.8	18	18	<8
00ELL22	<2	0.13	5.81	6.3	16.9	18	15	<8
00ELL23	<2	0.14	5.13	5.7	21.3	19	17	<8
00ELL24	<2	0.15	5.50	6.0	14.4	19	13	<8
00ELL25	<2	0.14	5.80	6.6	17.8	17	16	<8
00ELL26	<2	0.14	6.82	7.6	18.2	16	16	<8
00ELL27	<2	0.11	4.33	5.1	21.6	20	19	<8
00ELL28	<2	0.11	4.90	5.3	15.1	19	12	<8
00ELL29	<2	0.14	5.78	6.7	15.5	15	13	<8
00ELL30	<2	0.13	5.30	6.6	17.7	13	16	<8
Mean	<2	0.15	5.72	6.1	15.4	16	14	<8
Stand. Dev.##	--###	0.03	0.82	0.8	3.7	3	3	--
Field No.	ICP40* Ag, ppm	ICPMS** Ag, ppm	ICP40 Al, %	ICPMS Al, %	HG-AAS# As, ppm	ICP40 As, ppm	ICPMS As, ppm	ICP40 Au, ppm
00ELLC1	<2	0.14	5.76	6.8	16.7	16	14	<8
00ELLC2	<2	0.13	5.14	6.6	17.8	15	14	<8
00ELLC3	<2	0.14	5.35	6.9	17.4	16	15	<8
00ELLC4	<2	0.13	5.57	6.4	16.7	14	14	<8
Mean	<2	0.14	5.45	6.7	17.2	15	14	<8
Stand. Dev.	--	0.01	0.27	0.2	0.5	1	1	--

* - ICP-AES determination after a total, four acid digestion

** - ICP-MS determination after a total, four acid digestion

*** - Cold Vapor - Atomic Absorption Spectrometry

- Hydride Generation - Atomic Absorption Spectrometry

- Standard Deviation

- Not Determined

¹Hg data suspect due to a Hg possible contamination problem.

Table 13. Analytical results for the 2000 individual subsamples from the Elbert County Lower Field, Deer Trail, CO Study Area.—Continued

Field No.	ICPMS Au, ppm	ICP40 Ba, ppm	ICPMS Ba, ppm	ICP40 Be, ppm	ICPMS Be, ppm	ICP40 Bi, ppm	ICPMS Bi, ppm	ICP40 Ca, %
00ELL01	< 0.05	614	660	1	1.9	<50	0.4	0.98
00ELL02	< 0.05	622	700	1	1.8	<50	0.3	0.67
00ELL03	< 0.05	597	640	1	1.8	<50	0.3	0.64
00ELL04	< 0.05	656	730	1	2.1	<50	0.2	2.08
00ELL05	< 0.05	830	940	1	1.9	<50	0.2	3.89
00ELL06	< 0.05	624	690	1	2.0	<50	0.2	2.08
00ELL07	< 0.05	601	680	1	1.7	<50	0.2	2.88
00ELL08	< 0.05	634	690	1	1.7	<50	0.2	2.80
00ELL09	< 0.05	574	640	1	1.6	<50	0.2	1.17
00ELL10	< 0.05	607	660	1	2.0	<50	0.2	2.25
00ELL11	< 0.05	758	800	1	1.9	<50	0.2	3.62
00ELL12	0.1	608	670	1	2.4	<50	0.4	1.91
00ELL13	< 0.05	644	690	1	2.2	<50	0.3	1.48
00ELL14	< 0.05	711	740	1	2.4	<50	0.3	2.24
00ELL15	< 0.05	622	660	1	1.6	<50	0.2	2.06
00ELL16	< 0.05	529	580	<1	1.9	<50	0.2	2.79
00ELL17	< 0.05	659	720	1	1.7	<50	0.2	2.11
00ELL18	< 0.05	725	810	1	1.8	<50	0.2	3.05
00ELL19	< 0.05	588	660	1	1.9	<50	0.3	0.79
00ELL20	< 0.05	674	720	1	1.6	<50	0.2	4.01
00ELL21	< 0.05	707	840	1	1.8	<50	0.2	3.50
00ELL22	< 0.05	630	680	1	2.0	<50	0.2	3.88
00ELL23	< 0.05	644	680	1	1.9	<50	0.2	2.55
00ELL24	< 0.05	656	710	1	1.8	<50	0.2	2.84
00ELL25	< 0.05	581	660	1	1.9	<50	0.3	2.03
00ELL26	< 0.05	595	660	1	2.3	<50	0.3	2.07
00ELL27	< 0.05	759	860	1	2.2	<50	0.1	4.87
00ELL28	< 0.05	729	700	1	1.5	<50	0.2	3.46
00ELL29	< 0.05	653	690	1	2.2	<50	0.2	0.80
00ELL30	< 0.05	610	670	1	1.6	<50	0.2	1.48
Mean	0.10	648	708	1	0.2	,50	0.2	2.36
Stand. Dev. ^{##}	--	65	75	--	0.2	--	0.1	1.11
Field No.	ICPMS Au, ppm	ICP40 Ba, ppm	ICPMS Ba, ppm	ICP40 Be, ppm	ICPMS Be, ppm	ICP40 Bi, ppm	ICPMS Bi, ppm	ICP40 Ca, %
00ELLC1	< 0.05	670	680	1	1.9	<50	0.2	2.35
00ELLC2	< 0.05	580	680	1	2.4	<50	0.2	2.15
00ELLC3	< 0.05	596	700	1	2.2	<50	0.2	2.26
00ELLC4	< 0.05	620	680	1	1.8	<50	0.2	2.33
Mean	<0.05	617	685	1	2.1	<50	0.2	2.27
Stand. Dev.	--	39	10	--	0.3	--	--	0.09

Table 13. Analytical results for the 2000 individual subsamples from the Elbert County Lower Field, Deer Trail, CO Study Area.—Continued

Field No.	ICPMS Ca, %	ICP40 Cd, ppm	ICPMS Cd, ppm	ICP40 Ce, ppm	ICPMS Ce, ppm	ICP40 Co, ppm	ICPMS Co, ppm	ICP40 Cr, ppm
00ELL01	1.0	<2	0.3	70	71	8	9.1	20
00ELL02	0.7	<2	0.2	73	79	9	9.8	22
00ELL03	0.7	<2	0.2	80	86	10	9.5	27
00ELL04	2.2	<2	0.2	68	66	9	11.0	41
00ELL05	4.2	<2	0.2	67	86	10	11.0	22
00ELL06	2.1	<2	0.3	87	94	9	9.4	25
00ELL07	3.0	<2	0.3	77	84	9	9.0	32
00ELL08	2.8	<2	0.2	90	87	8	8.3	23
00ELL09	1.2	<2	0.2	70	73	9	9.8	18
00ELL10	2.4	<2	0.2	84	86	9	9.1	18
00ELL11	4.0	<2	0.2	59	66	9	9.2	17
00ELL12	2.0	<2	0.2	76	74	10	11.0	24
00ELL13	1.6	<2	0.2	68	70	10	10.0	23
00ELL14	2.4	<2	0.2	73	81	12	12.0	32
00ELL15	2.3	<2	0.2	74	70	9	9.0	20
00ELL16	3.1	<2	0.1	63	65	7	8.2	15
00ELL17	2.3	<2	0.2	60	64	9	9.3	18
00ELL18	3.5	<2	0.2	54	58	9	11.0	15
00ELL19	0.9	<2	0.3	78	77	9	10.0	20
00ELL20	4.6	<2	0.3	68	85	9	9.8	18
00ELL21	4.2	<2	0.2	59	59	8	11.0	26
00ELL22	4.5	<2	0.2	69	65	9	10.0	21
00ELL23	3.0	<2	0.3	86	78	9	11.0	18
00ELL24	3.3	<2	0.2	81	79	9	10.0	18
00ELL25	2.4	<2	0.3	72	75	9	11.0	22
00ELL26	2.4	<2	0.2	72	70	11	12.0	25
00ELL27	6.5	<2	0.3	53	55	8	10.0	27
00ELL28	4.0	<2	0.2	73	54	10	8.8	19
00ELL29	0.9	<2	0.3	77	72	10	11.0	19
00ELL30	1.8	<2	0.2	68	71	9	11.0	19
Mean	2.7	<2	0.2	72	73	9	10.0	22
Stand. Dev. ^{##}	1.3	--	0.1	9	10	1	1.0	6
Field No.	ICPMS Ca, %	ICP40 Cd, ppm	ICPMS Cd, ppm	ICP40 Ce, ppm	ICPMS Ce, ppm	ICP40 Co, ppm	ICPMS Co, ppm	ICP40 Cr, ppm
00ELLC1	2.9	<2	0.2	70	73	9	11	40
00ELLC2	3.0	<2	0.2	63	68	9	11	34
00ELLC3	3.1	<2	0.2	61	78	8	11	37
00ELLC4	2.8	<2	0.2	66	68	9	10	36
Mean	3.0	<2	0.2	65	72	9	11	37
Stand. Dev.	0.1	--	--	4	5	1	1	3

Table 13. Analytical results for the 2000 individual subsamples from the Elbert County Lower Field, Deer Trail, CO Study Area.—Continued

Field No.	ICPMS Cr, ppm	ICPMS Cs, ppm	ICP40 Cu, ppm	ICPMS Cu, ppm	ICPMS Dy, ppm	ICPMS Er, ppm	ICP40 Eu, ppm	ICPMS Eu, ppm
00ELL01	45	4.9	20	20	4.2	2.2	<2	1.1
00ELL02	47	5.2	21	20	4.7	2.4	<2	1.2
00ELL03	46	5.0	20	20	4.6	2.3	<2	1.2
00ELL04	46	5.1	23	20	4.4	2.2	<2	1.2
00ELL05	37	4.3	24	20	4.5	2.3	<2	1.2
00ELL06	44	4.8	19	20	4.8	2.4	<2	1.2
00ELL07	43	4.5	19	20	4.4	2.2	<2	1.2
00ELL08	40	4.1	17	20	4.5	2.2	<2	1.1
00ELL09	45	4.9	19	20	4.3	2.2	<2	1.1
00ELL10	41	4.3	19	20	4.5	2.2	<2	1.1
00ELL11	38	4.2	19	20	4.1	2.0	<2	1.0
00ELL12	78	9.0	28	30	4.6	2.4	<2	1.2
00ELL13	54	6.1	23	20	4.4	2.2	<2	1.1
00ELL14	63	7.1	26	20	4.7	2.4	<2	1.2
00ELL15	38	4.1	18	20	4.2	2.0	<2	1.0
00ELL16	38	4.4	15	20	3.6	1.8	<2	1.0
00ELL17	32	3.6	18	20	3.8	1.9	<2	1.0
00ELL18	32	3.5	17	20	3.8	2.0	<2	1.0
00ELL19	52	5.8	23	20	4.4	2.2	<2	1.2
00ELL20	30	3.1	19	20	4.0	2.0	<2	1.0
00ELL21	35	3.7	18	20	3.8	2.0	<2	1.0
00ELL22	47	5.0	20	20	4.0	2.0	<2	1.0
00ELL23	39	3.7	21	20	4.5	2.2	<2	1.1
00ELL24	41	4.0	18	20	4.2	2.1	<2	1.1
00ELL25	50	4.9	22	20	4.5	2.2	<2	1.1
00ELL26	62	6.6	24	20	4.3	2.2	<2	1.1
00ELL27	27	2.8	16	20	3.4	1.8	<2	1.0
00ELL28	35	3.7	17	20	3.4	1.7	<2	0.9
00ELL29	45	4.6	20	20	4.2	2.1	<2	1.1
00ELL30	46	4.3	21	20	4.3	2.1	<2	1.0
Mean	44	4.7	20	20	4.2	2.1	<2	1.1
Stand. Dev. ^{##}	11	1.3	3	2	0.4	0.2	--	0.1
Field No.	ICPMS Cr, ppm	ICPMS Cs, ppm	ICP40 Cu, ppm	ICPMS Cu, ppm	ICPMS Dy, ppm	ICPMS Er, ppm	ICP40 Eu, ppm	ICPMS Eu, ppm
00ELLC1	50	4.6	21	20	4.3	2.2	<2	1.1
00ELLC2	49	4.5	18	20	4.1	2.1	<2	1.0
00ELLC3	48	4.7	19	20	4.1	2.0	<2	1.1
00ELLC4	46	4.5	19	20	4.0	2.0	<2	1.0
Mean	48	4.6	19	20	4.1	2.1	<2	1.1
Stand. Dev.	2	0.1	1	--	0.1	0.1	--	0.1

Table 13. Analytical results for the 2000 individual subsamples from the Elbert County Lower Field, Deer Trail, CO Study Area.—Continued

Field No.	ICP40 Fe, %	ICPMS Fe, %	ICP40 Ga, ppm	ICPMS Ga, ppm	ICPMS Gd, ppm	ICPMS Ge, ppm	CV-AAS***, ¹ Hg, ppm	ICP40 Ho, ppm
00ELL01	2.91	3.2	15	13	5.0	1.2	0.03	<4
00ELL02	3.12	3.3	16	13	5.5	1.3	0.03	<4
00ELL03	2.74	2.9	15	13	5.6	1.2	0.07	<4
00ELL04	3.88	4.2	15	13	5.0	1.2	0.11	<4
00ELL05	3.91	4.2	14	11	5.4	1.0	0.09	<4
00ELL06	2.57	2.7	15	14	6.0	1.2	0.05	<4
00ELL07	2.42	2.6	14	13	5.4	1.1	0.03	<4
00ELL08	2.34	2.4	15	12	5.5	1.1	0.02	<4
00ELL09	2.98	3.3	16	13	5.2	1.2	0.03	<4
00ELL10	2.77	3.0	14	12	5.6	1.1	0.02	<4
00ELL11	3.50	3.7	13	11	4.8	1.0	0.03	<4
00ELL12	3.35	3.7	20	19	5.5	1.4	0.06	<4
00ELL13	3.56	3.9	16	14	5.1	1.3	0.09	<4
00ELL14	3.90	4.2	18	16	5.7	1.4	0.17	<4
00ELL15	3.19	3.5	12	11	5.0	1.2	0.08	<4
00ELL16	2.23	2.5	14	11	4.4	1.1	0.06	<4
00ELL17	3.17	3.6	13	10	4.6	1.1	0.06	<4
00ELL18	3.90	4.4	12	11	4.3	1.0	0.05	<4
00ELL19	2.72	3.1	15	14	5.4	1.4	0.02	<4
00ELL20	3.83	4.4	12	10	5.0	1.0	0.05	<4
00ELL21	3.64	4.1	13	11	4.3	1.1	0.06	<4
00ELL22	3.22	3.7	15	13	4.6	1.2	0.04	<4
00ELL23	4.07	4.5	12	12	5.6	1.2	0.08	<4
00ELL24	3.16	3.5	14	12	5.4	1.1	0.06	<4
00ELL25	3.39	4.0	15	14	5.4	1.2	0.07	<4
00ELL26	3.73	4.3	18	16	5.3	1.3	0.06	<4
00ELL27	4.13	5.0	12	10	4.1	1.0	0.07	<4
00ELL28	2.91	3.4	11	11	4.0	1.1	0.06	<4
00ELL29	3.34	4.0	14	13	5.2	1.3	0.04	<4
00ELL30	3.28	3.9	14	13	5.0	1.2	0.05	<4
Mean	3.26	3.6	14	13	5.1	1.2	0.06	<4
Stand. Dev. ^{##}	0.53	0.7	2	2	0.5	0.1	0.03	--
Field No.	ICP40 Fe, %	ICPMS Fe, %	ICP40 Ga, ppm	ICPMS Ga, ppm	ICPMS Gd, ppm	ICPMS Ge, ppm	CV-AAS*** Hg, ppm	ICP40 Ho, ppm
00ELLC1	3.35	3.9	15	14	5.1	1.3	0.04	<4
00ELLC2	3.05	3.9	14	13	4.9	1.3	0.05	<4
00ELLC3	3.15	4.0	14	13	5.0	1.3	0.03	<4
00ELLC4	3.18	3.9	14	13	4.9	1.2	0.04	<4
Mean	3.18	3.9	14	13	5.0	1.3	0.04	<4
Stand. Dev.	0.12	--	1	1	0.1	--	0.01	--

Table 13. Analytical results for the 2000 individual subsamples from the Elbert County Lower Field, Deer Trail, CO Study Area.—Continued

Field No.	ICPMS Ho, ppm	ICPMS In, ppm	ICP40 K, %	ICPMS K, %	ICP40 La, ppm	ICPMS La, ppm	ICP40 Li, ppm	ICPMS Li, ppm
00ELL01	0.73	< 0.1	2.31	2.3	37	39	26	28
00ELL02	0.74	< 0.1	2.26	2.2	38	42	28	30
00ELL03	0.76	< 0.1	2.27	2.2	39	45	27	28
00ELL04	0.70	< 0.1	2.30	2.3	37	38	28	29
00ELL05	0.74	< 0.1	2.14	2.0	37	45	26	27
00ELL06	0.77	< 0.1	2.24	2.1	44	50	27	28
00ELL07	0.71	< 0.1	2.16	2.0	39	45	26	27
00ELL08	0.71	< 0.1	2.24	2.0	46	46	24	24
00ELL09	0.70	< 0.1	2.16	2.2	35	40	26	29
00ELL10	0.72	< 0.1	2.15	2.1	43	47	25	26
00ELL11	0.66	< 0.1	2.11	2.1	32	37	26	27
00ELL12	0.76	< 0.1	2.42	2.4	37	41	55	55
00ELL13	0.70	< 0.1	2.30	2.3	35	39	36	37
00ELL14	0.74	< 0.1	2.40	2.4	39	43	46	46
00ELL15	0.67	< 0.1	2.12	2.2	37	39	24	25
00ELL16	0.58	< 0.1	2.01	2.0	32	36	26	29
00ELL17	0.60	< 0.1	2.10	2.2	32	36	20	22
00ELL18	0.64	< 0.1	2.20	2.2	30	33	19	22
00ELL19	0.72	< 0.1	2.22	2.4	38	43	29	33
00ELL20	0.63	< 0.1	2.06	2.2	37	47	17	18
00ELL21	0.63	< 0.1	2.07	2.2	31	34	21	24
00ELL22	0.65	< 0.1	2.12	2.3	35	36	31	33
00ELL23	0.71	< 0.1	2.13	2.3	44	44	22	24
00ELL24	0.67	< 0.1	2.18	2.3	39	44	24	25
00ELL25	0.71	< 0.1	2.16	2.4	37	42	27	31
00ELL26	0.69	< 0.1	2.32	2.6	37	39	41	44
00ELL27	0.56	< 0.1	2.16	2.4	29	32	15	18
00ELL28	0.55	< 0.1	1.99	2.2	35	31	23	24
00ELL29	0.70	< 0.1	2.36	2.7	39	40	24	27
00ELL30	0.67	< 0.1	2.13	2.6	36	39	23	27
Mean	0.68	< 0.1	2.19	2.3	37	40	27	29
Stand. Dev. ^{##}	0.06	--	0.11	0.2	4	5	8	8
Field No.	ICPMS Ho, ppm	ICPMS In, ppm	ICP40 K, %	ICPMS K, %	ICP40 La, ppm	ICPMS La, ppm	ICP40 Li, ppm	ICPMS Li, ppm
00ELLC1	0.68	< 0.1	2.24	2.6	36	41	28	31
00ELLC2	0.68	< 0.1	1.97	2.5	33	38	24	30
00ELLC3	0.67	< 0.1	2.08	2.6	32	44	25	31
00ELLC4	0.64	< 0.1	2.13	2.4	35	40	27	30
Mean	0.67	< 0.1	2.11	2.5	34	41	26	31
Stand. Dev.	0.02	--	0.11	0.1	2	3	2	1

Table 13. Analytical results for the 2000 individual subsamples from the Elbert County Lower Field, Deer Trail, CO Study Area.—Continued

Field No.	ICP40 Mg, %	ICPMS Mg, %	ICP40 Mn, ppm	ICPMS Mn, ppm	ICP40 Mo, ppm	ICPMS Mo, ppm	ICP40 Na, %	ICPMS Na, %
00ELL01	0.66	0.74	350	380	<2	1.4	0.70	0.70
00ELL02	0.71	0.78	354	380	<2	1.3	0.71	0.69
00ELL03	0.70	0.75	367	400	<2	1.2	0.74	0.73
00ELL04	0.75	0.82	529	560	3	1.9	0.70	0.69
00ELL05	0.68	0.75	401	440	3	2.1	0.66	0.64
00ELL06	0.86	0.92	387	410	<2	1.0	0.87	0.82
00ELL07	0.84	0.90	337	360	<2	0.9	0.79	0.75
00ELL08	0.81	0.83	353	350	<2	0.8	0.87	0.80
00ELL09	0.68	0.79	293	350	<2	1.2	0.67	0.67
00ELL10	0.76	0.84	323	360	<2	1.1	0.76	0.74
00ELL11	0.77	0.87	344	380	2	1.5	0.65	0.64
00ELL12	1.36	1.50	222	250	2	2.1	0.53	0.51
00ELL13	0.97	1.00	331	360	3	1.9	0.64	0.64
00ELL14	1.15	1.20	335	350	3	1.9	0.61	0.60
00ELL15	0.65	0.73	361	390	2	1.2	0.66	0.67
00ELL16	0.81	0.91	213	250	<2	0.8	0.62	0.60
00ELL17	0.51	0.59	370	420	2	1.4	0.69	0.70
00ELL18	0.49	0.59	617	740	3	1.5	0.71	0.74
00ELL19	0.77	0.91	360	420	<2	1.1	0.71	0.77
00ELL20	0.48	0.56	530	620	2	1.6	0.70	0.72
00ELL21	0.57	0.73	395	490	2	1.7	0.63	0.67
00ELL22	0.77	0.91	350	400	<2	1.3	0.60	0.62
00ELL23	0.62	0.73	483	550	2	1.7	0.71	0.75
00ELL24	0.70	0.86	374	440	<2	1.3	0.76	0.78
00ELL25	0.72	0.90	345	430	2	1.8	0.66	0.72
00ELL26	0.97	1.20	331	410	2	1.8	0.65	0.69
00ELL27	0.39	0.51	618	780	3	2.0	0.69	0.78
00ELL28	0.57	0.64	384	390	2	1.3	0.63	0.64
00ELL29	0.59	0.71	523	640	<2	1.3	0.76	0.84
00ELL30	0.62	0.82	389	460	<2	1.4	0.70	0.82
Mean	0.73	0.83	386	439	2.38	1.5	0.69	0.70
Stand. Dev. ^{##}	0.20	0.20	96	124	--	0.4	0.07	0.08
Field No.	ICP40 Mg, %	ICPMS Mg, %	ICP40 Mn, ppm	ICPMS Mn, ppm	ICP40 Mo, ppm	ICPMS Mo, ppm	ICP40 Na, %	ICPMS Na, %
00ELLC1	0.73	0.95	405	470	2	1.4	0.70	0.78
00ELLC2	0.66	0.9	362	480	<2	1.5	0.63	0.74
00ELLC3	0.66	0.93	372	490	2	1.4	0.66	0.78
00ELLC4	0.70	0.89	376	440	2	1.4	0.67	0.73
Mean	0.69	0.92	379	470	2	1.4	0.66	0.76
Stand. Dev.	0.03	0.03	18	22	--	0.1	0.03	0.03

Table 13. Analytical results for the 2000 individual subsamples from the Elbert County Lower Field, Deer Trail, CO Study Area.—Continued

Field No.	ICP40 Nb, ppm	ICPMS Nb, ppm	ICP40 Nd, ppm	ICPMS Nd, ppm	ICP40 Ni, ppm	ICPMS Ni, ppm	ICP40 P, %	ICPMS P, %
00ELL01	10	12	34	34	17	20	0.07	0.08
00ELL02	11	14	34	36	19	21	0.07	0.07
00ELL03	10	14	35	39	18	19	0.08	0.08
00ELL04	12	12	33	32	21	23	0.07	0.08
00ELL05	8	10	33	40	19	22	0.07	0.08
00ELL06	11	16	41	44	18	19	0.07	0.07
00ELL07	11	14	35	38	18	19	0.07	0.07
00ELL08	10	14	43	39	16	17	0.07	0.07
00ELL09	9	12	33	35	18	20	0.07	0.07
00ELL10	12	13	38	39	17	19	0.07	0.07
00ELL11	10	10	29	32	17	19	0.07	0.08
00ELL12	15	16	35	35	28	31	0.07	0.08
00ELL13	10	13	31	34	23	24	0.07	0.08
00ELL14	12	13	34	38	25	27	0.07	0.08
00ELL15	9	11	35	33	16	18	0.07	0.07
00ELL16	8	10	27	30	15	17	0.06	0.07
00ELL17	9	10	28	31	15	18	0.07	0.07
00ELL18	9	9	27	28	17	20	0.07	0.09
00ELL19	11	14	35	36	18	21	0.07	0.08
00ELL20	9	10	32	37	16	19	0.07	0.09
00ELL21	8	10	29	28	17	20	0.06	0.08
00ELL22	9	12	31	30	19	22	0.07	0.08
00ELL23	11	13	40	37	18	21	0.07	0.08
00ELL24	10	14	39	36	17	20	0.07	0.08
00ELL25	11	13	35	36	19	23	0.07	0.08
00ELL26	10	12	35	33	23	27	0.07	0.09
00ELL27	8	8	27	26	15	19	0.07	0.10
00ELL28	8	8	34	26	17	18	0.06	0.07
00ELL29	10	13	34	34	17	20	0.07	0.09
00ELL30	9	12	32	33	17	22	0.07	0.09
Mean	10	12	34	34	18	21	0.07	0.08
Stand. Dev. ^{##}	2	2	4	4	3	3	--	0.01
Field No.	ICP40 Nb, ppm	ICPMS Nb, ppm	ICP40 Nd, ppm	ICPMS Nd, ppm	ICP40 Ni, ppm	ICPMS Ni, ppm	ICP40 P, %	ICPMS P, %
00ELLC1	11	13	32	34	18	23	0.07	0.09
00ELLC2	9	13	31	32	16	22	0.06	0.08
00ELLC3	10	12	29	35	17	23	0.06	0.09
00ELLC4	15	12	33	32	18	22	0.07	0.08
Mean	11	13	31	33	17	23	0.06	0.09
Stand. Dev.	3	1	2	2	1	1	--	0.01

Table 13. Analytical results for the 2000 individual subsamples from the Elbert County Lower Field, Deer Trail, CO Study Area.—Continued

Field No.	ICP40 Pb, ppm	ICPMS Pb, ppm	ICPMS Pr, ppm	ICPMS Rb, ppm	ICPMS Re, ppm	ICPMS Sb, ppm	ICP40 Sc, ppm	ICPMS Sc, ppm
00ELL01	23	26	8.4	100	< 0.05	1.0	8	7.7
00ELL02	22	25	8.8	100	< 0.05	1.0	9	7.9
00ELL03	22	24	9.6	98	< 0.05	1.0	9	8.0
00ELL04	25	27	7.8	100	< 0.05	1.2	8	7.8
00ELL05	27	28	9.8	92	< 0.05	1.2	7	6.7
00ELL06	21	23	11.0	100	< 0.05	0.9	9	7.9
00ELL07	20	21	9.4	95	< 0.05	0.8	8	7.6
00ELL08	20	21	9.7	92	< 0.05	0.8	8	7.1
00ELL09	22	25	8.6	99	< 0.05	1.0	8	7.7
00ELL10	23	23	9.8	94	< 0.05	0.9	8	7.3
00ELL11	22	24	7.8	91	< 0.05	1.0	7	6.8
00ELL12	23	25	8.6	120	< 0.05	1.2	13	12.0
00ELL13	26	27	8.3	110	< 0.05	1.2	10	9.0
00ELL14	27	28	9.2	110	< 0.05	1.3	11	10.0
00ELL15	23	24	8.3	91	< 0.05	1.0	7	6.7
00ELL16	19	21	7.4	85	< 0.05	7.3	7	6.8
00ELL17	24	25	7.5	88	< 0.05	1.1	6	5.8
00ELL18	23	24	6.8	92	< 0.05	1.1	6	6.0
00ELL19	23	26	8.9	110	< 0.05	0.9	9	9.1
00ELL20	23	25	9.3	86	< 0.05	1.1	6	5.8
00ELL21	24	25	6.8	89	< 0.05	1.1	6	6.5
00ELL22	24	24	7.6	98	< 0.05	1.0	8	8.1
00ELL23	25	27	9.0	91	< 0.05	1.2	7	7.1
00ELL24	23	24	9.1	93	< 0.05	1.0	7	7.4
00ELL25	24	28	8.8	100	< 0.05	1.2	8	8.6
00ELL26	28	29	8.1	110	< 0.05	1.3	10	10.0
00ELL27	23	27	6.4	88	< 0.05	1.1	5	5.4
00ELL28	23	22	6.3	88	< 0.05	0.9	6	6.3
00ELL29	25	26	8.2	100	< 0.05	1.0	8	8.2
00ELL30	25	28	8.2	99	< 0.05	1.1	7	8.2
Mean	23	25	8.5	97	< 0.05	1.3	8	7.7
Stand. Dev. ^{##}	2	2	1.1	8	--	1.1	2	1.4
Field No.	ICP40 Pb, ppm	ICPMS Pb, ppm	ICPMS Pr, ppm	ICPMS Rb, ppm	ICPMS Re, ppm	ICPMS Sb, ppm	ICP40 Sc, ppm	ICPMS Sc, ppm
00ELLC1	26	25	8.2	98	< 0.05	1.0	8	8.8
00ELLC2	23	25	7.8	98	< 0.05	1.0	7	8.6
00ELLC3	22	25	8.7	100	< 0.05	1.0	7	8.7
00ELLC4	22	25	7.9	97	< 0.05	1.0	8	8.2
Mean	23	25	8.2	98	< 0.05	1.0	8	8.6
Stand. Dev.	2	--	0.4	1	--	--	1	0.3

Table 13. Analytical results for the 2000 individual subsamples from the Elbert County Lower Field, Deer Trail, CO Study Area.—Continued

Field No.	ICPMS Se, ppm	HGAAS Se, ppm	ICPMS Sm, ppm	ICP40 Sn, ppm	ICPMS Sn, ppm	ICP40 Sr, ppm	ICPMS Sr, ppm	ICP40 Ta, ppm
00ELL01	0.9	< 1	5.8	<50	2	121	120	<40
00ELL02	0.8	< 1	6.2	<50	2	119	110	<40
00ELL03	0.7	< 1	6.7	<50	2	124	120	<40
00ELL04	1.1	< 1	5.6	<50	2	132	130	<40
00ELL05	1.2	< 1	6.5	<50	2	183	180	<40
00ELL06	0.5	< 1	7.1	<50	2	179	170	<40
00ELL07	0.6	< 1	6.4	<50	2	167	160	<40
00ELL08	0.6	< 1	6.7	<50	2	173	160	<40
00ELL09	0.8	< 1	5.9	<50	2	120	120	<40
00ELL10	0.6	< 1	6.6	<50	2	150	140	<40
00ELL11	0.9	< 1	5.5	<50	1	149	140	<40
00ELL12	0.8	< 1	6.2	<50	3	176	180	<40
00ELL13	1.0	< 1	5.8	<50	2	130	120	<40
00ELL14	1.1	< 1	6.3	<50	2	155	150	<40
00ELL15	0.7	< 1	5.9	<50	2	130	120	<40
00ELL16	0.6	< 1	5.0	<50	18	161	160	<40
00ELL17	1.0	< 1	5.3	<50	2	143	140	<40
00ELL18	1.0	< 1	4.8	<50	1	139	140	<40
00ELL19	0.8	< 1	6.2	<50	2	129	130	<40
00ELL20	1.2	< 1	5.9	<50	1	141	130	<40
00ELL21	1.1	< 1	4.9	<50	1	146	150	<40
00ELL22	0.9	< 1	5.3	<50	2	164	160	<40
00ELL23	1.2	< 1	6.2	<50	2	137	130	<40
00ELL24	0.9	< 1	6.2	<50	2	169	160	<40
00ELL25	1.3	< 1	5.9	<50	2	137	130	<40
00ELL26	1.1	< 1	5.8	<50	2	179	180	<40
00ELL27	1.3	< 1	4.5	<50	1	149	160	<40
00ELL28	1.0	< 1	4.5	<50	1	145	140	<40
00ELL29	1.0	< 1	5.8	<50	2	125	120	<40
00ELL30	1.2	< 1	5.7	<50	2	125	120	<40
Mean	0.9	< 1	5.8	<50	2	147	142	<40
Stand. Dev. ^{##}	0.2	--	0.7	--	3	20	21	--
Field No.	ICPMS Se, ppm	HGAAS Se, ppm	ICPMS Sm, ppm	ICP40 Sn, ppm	ICPMS Sn, ppm	ICP40 Sr, ppm	ICPMS Sr, ppm	ICP40 Ta, ppm
00ELLC1	< 1	1	5.9	<50	2	148	140	<40
00ELLC2	< 1	1	5.4	<50	2	132	140	<40
00ELLC3	< 1	1	5.7	<50	2	139	140	<40
00ELLC4	< 1	1	5.4	<50	2	142	140	<40
Mean	<1	1	5.6	<50	2	140	140	<40
Stand. Dev.	--	--	0.2	--	--	7	--	--

Table 13. Analytical results for the 2000 individual subsamples from the Elbert County Lower Field, Deer Trail, CO Study Area.—Continued

Field No.	ICPMS Tb, ppm	ICPMS Te, ppm	ICP40 Th, ppm	ICPMS Th, ppm	ICP40 Ti, %	ICPMS Ti, %	ICPMS Tl, ppm	ICPMS Tm, ppm
00ELL01	0.70	< 0.1	10	11	0.25	0.3	0.7	0.34
00ELL02	0.71	< 0.1	10	12	0.26	0.3	0.7	0.33
00ELL03	0.72	< 0.1	11	12	0.27	0.3	0.7	0.33
00ELL04	0.66	< 0.1	11	10	0.23	0.3	0.7	0.31
00ELL05	0.70	< 0.1	10	12	0.20	0.2	0.6	0.31
00ELL06	0.79	< 0.1	13	14	0.27	0.3	0.7	0.33
00ELL07	0.70	< 0.1	11	12	0.27	0.3	0.7	0.31
00ELL08	0.70	< 0.1	14	12	0.27	0.3	0.7	0.32
00ELL09	0.67	< 0.1	10	11	0.25	0.3	0.6	0.32
00ELL10	0.71	< 0.1	11	13	0.27	0.3	0.6	0.31
00ELL11	0.63	< 0.1	7	10	0.21	0.2	0.6	0.28
00ELL12	0.72	< 0.1	12	12	0.33	0.4	0.8	0.34
00ELL13	0.67	< 0.1	10	11	0.25	0.3	0.7	0.31
00ELL14	0.74	< 0.1	10	13	0.27	0.3	0.8	0.33
00ELL15	0.66	< 0.1	11	10	0.22	0.3	0.6	0.29
00ELL16	0.58	< 0.1	8	10	0.23	0.2	0.6	0.26
00ELL17	0.59	< 0.1	8	10	0.19	0.2	0.6	0.27
00ELL18	0.58	< 0.1	<6	9	0.18	0.2	0.6	0.28
00ELL19	0.69	< 0.1	12	11	0.27	0.3	0.7	0.30
00ELL20	0.63	< 0.1	9	12	0.19	0.2	0.6	0.27
00ELL21	0.58	< 0.1	7	9	0.18	0.2	0.6	0.28
00ELL22	0.61	< 0.1	10	10	0.23	0.3	0.6	0.29
00ELL23	0.70	< 0.1	14	13	0.24	0.3	0.6	0.32
00ELL24	0.69	< 0.1	12	13	0.25	0.3	0.6	0.28
00ELL25	0.70	< 0.1	11	12	0.25	0.3	0.7	0.30
00ELL26	0.66	< 0.1	11	12	0.26	0.3	0.8	0.30
00ELL27	0.52	< 0.1	7	9	0.15	0.2	0.6	0.25
00ELL28	0.52	< 0.1	13	9	0.18	0.2	0.6	0.24
00ELL29	0.67	< 0.1	10	11	0.24	0.3	0.7	0.30
00ELL30	0.65	< 0.1	10	11	0.23	0.3	0.6	0.29
Mean	0.66	< 0.1	10	11	0.23	0.3	0.7	0.30
Stand. Dev. ^{##}	0.06	--	--	1	0.04	0.1	0.1	0.03
Field No.	ICPMS Tb, ppm	ICPMS Te, ppm	ICP40 Th, ppm	ICPMS Th, ppm	ICP40 Ti, %	ICPMS Ti, %	ICPMS Tl, ppm	ICPMS Tm, ppm
00ELLC1	0.67	< 0.1	10	11	0.23	0.4	0.7	0.30
00ELLC2	0.68	< 0.1	9	11	0.21	0.3	0.7	0.31
00ELLC3	0.64	< 0.1	9	12	0.22	0.3	0.7	0.28
00ELLC4	0.62	< 0.1	9	11	0.23	0.3	0.6	0.28
Mean	0.65	<0.1	9	11	0.22	0.3	0.7	0.29
Stand. Dev.	0.03	--	1	1	0.01	--	0.1	0.02

Table 13. Analytical results for the 2000 individual subsamples from the Elbert County Lower Field, Deer Trail, CO Study Area.—Continued

Field No.	ICP40 U, ppm	ICPMS U, ppm	ICP40 V, ppm	ICPMS V, ppm	ICPMS W, ppm	ICP40 Y, ppm	ICPMS Y, ppm	ICP40 Yb, ppm
00ELL01	<100	3.0	83	82	2.0	21	29	3
00ELL02	<100	3.0	88	87	1.3	22	31	3
00ELL03	<100	3.0	84	82	1.4	22	31	3
00ELL04	<100	3.2	89	87	1.2	22	30	2
00ELL05	<100	3.4	78	76	1.4	22	32	2
00ELL06	<100	3.1	81	77	1.3	23	32	3
00ELL07	<100	2.8	79	77	1.1	22	30	3
00ELL08	<100	2.8	76	71	1.0	23	30	3
00ELL09	<100	3.0	81	84	1.1	21	29	3
00ELL10	<100	3.0	79	77	1.0	22	30	3
00ELL11	<100	3.8	74	73	1.0	21	28	2
00ELL12	<100	4.3	133	140	1.8	23	32	3
00ELL13	<100	3.5	101	99	1.5	22	30	2
00ELL14	<100	3.8	119	120	1.6	23	32	2
00ELL15	<100	3.0	77	75	1.1	21	28	3
00ELL16	<100	2.6	73	73	0.9	19	26	2
00ELL17	<100	2.8	65	67	1.1	19	26	2
00ELL18	<100	3.1	64	69	2.6	20	27	2
00ELL19	<100	2.9	87	91	1.5	22	30	3
00ELL20	<100	3.2	67	68	2.8	21	28	2
00ELL21	<100	2.8	67	72	1.0	19	28	2
00ELL22	<100	2.8	84	87	1.2	21	28	3
00ELL23	<100	3.5	82	83	1.5	24	31	2
00ELL24	<100	3.1	76	80	1.1	21	29	3
00ELL25	<100	3.2	87	97	1.3	21	31	3
00ELL26	<100	3.7	108	120	1.3	22	30	2
00ELL27	<100	3.3	58	64	2.9	19	26	2
00ELL28	<100	2.7	69	69	1.0	21	24	2
00ELL29	<100	3.0	78	84	1.2	23	31	3
00ELL30	<100	3.0	77	88	1.2	21	30	3
Mean	<100	3.1	82	84	1.4	21	29	3
Stand. Dev. ^{##}	--	0.4	16	17	0.5	1	2	1
Field No.	ICP40 U, ppm	ICPMS U, ppm	ICP40 V, ppm	ICPMS V, ppm	ICPMS W, ppm	ICP40 Y, ppm	ICPMS Y, ppm	ICP40 Yb, ppm
00ELLC1	<100	3.3	84	94	1.4	21	30	3
00ELLC2	<100	3.3	75	91	2.1	19	30	2
00ELLC3	<100	3.2	76	92	3.2	20	30	2
00ELLC4	<100	3.3	80	88	1.4	20	29	3
Mean	<100	3.3	79	91	2.0	20	30	3
Stand. Dev.	--	--	4	3	0.9	1	1	1

Table 13. Analytical results for the 2000 individual subsamples from the Elbert County Lower Field, Deer Trail, CO Study Area.—Continued

Field No.	ICPMS Yb, ppm	ICP40 Zn, ppm	ICPMS Zn, ppm
00ELL01	2.1	75	84
00ELL02	2.3	84	85
00ELL03	2.2	76	82
00ELL04	2.1	83	89
00ELL05	2.2	81	87
00ELL06	2.3	66	74
00ELL07	2.1	62	69
00ELL08	2.1	59	64
00ELL09	2.1	75	82
00ELL10	2.2	67	72
00ELL11	2.0	70	76
00ELL12	2.3	95	110
00ELL13	2.1	91	99
00ELL14	2.2	95	100
00ELL15	1.9	69	74
00ELL16	1.8	58	66
00ELL17	1.8	66	75
00ELL18	1.8	66	76
00ELL19	2.0	79	92
00ELL20	1.8	67	76
00ELL21	1.9	68	81
00ELL22	2.0	73	83
00ELL23	2.2	74	85
00ELL24	2.0	69	79
00ELL25	2.1	75	91
00ELL26	2.0	91	110
00ELL27	1.7	65	77
00ELL28	1.6	64	72
00ELL29	2.0	79	91
00ELL30	2.0	73	91
Mean	2.0	74	83
Stand. Dev. ^{##}	0.2	10	12
Field No.	ICPMS Yb, ppm	ICP40 Zn, ppm	ICPMS Zn, ppm
00ELLC1	2	78	89
00ELLC2	2.1	70	87
00ELLC3	2	71	89
00ELLC4	1.9	73	86
Mean	2.00	73	88
Stand. Dev.	0.08	4	2

Table 14. Analytical results for the 2002 individual subsamples from the Elbert County Middle Field, Deer Trail, CO Study Area.

Field No.	ICP40* Ag, ppm	ICPMS** Ag, ppm	ICP40 Al, %	ICPMS Al, %	HG-AAS# As, ppm	ICP40 As, ppm	ICPMS As, ppm	ICP40 Au, ppm
02ELM01	<2	<3	5.38	5.13	10.7	10	13	<8
02ELM02	<2	<3	6.17	6.21	13.2	15	16	<8
02ELM03	3	<3	5.20	5.36	19.7	21	21	<8
02ELM04	<2	<3	6.10	5.98	16.1	16	19	<8
02ELM05	<2	<3	6.40	6.76	14.5	13	16	<8
02ELM06	<2	<3	6.41	6.69	14.5	17	17	<8
02ELM07	<2	<3	6.05	6.26	17.7	17	18	<8
02ELM08	<2	<3	6.14	6.40	13.8	15	14	<8
02ELM09	<2	<3	6.18	6.64	16.4	14	17	<8
02ELM10	<2	<3	6.05	6.41	11.9	13	15	<8
02ELM11	<2	<3	6.27	6.74	12.7	14	14	<8
02ELM12	<2	<3	6.35	6.60	12.1	12	12	<8
02ELM13	<2	<3	6.43	6.84	12.4	17	13	<8
02ELM14	<2	<3	6.36	6.59	13.0	15	14	<8
02ELM15	<2	<3	5.71	6.09	16.2	15	6	<8
02ELM16	<2	<3	6.14	6.30	11.3	14	13	<8
02ELM17	<2	<3	6.00	6.29	17.2	15	16	<8
02ELM18	<2	<3	6.08	6.45	13.1	14	13	<8
02ELM19	<2	<3	5.69	5.72	11.1	12	11	<8
02ELM20	<2	<3	5.71	6.01	17.4	19	17	<8
02ELM21	<2	<3	6.17	6.54	16.9	19	17	<8
02ELM22	<2	<3	6.07	6.34	17.9	18	17	<8
02ELM23	<2	<3	4.36	4.41	21.2	21	20	<8
02ELM24	<2	<3	6.05	6.30	15.0	16	15	<8
02ELM25	<2	<3	6.71	7.06	12.1	15	14	<8
02ELM26	<2	<3	5.20	5.04	21.4	19	20	<8
02ELM27	<2	<3	6.45	6.87	15.8	14	16	<8
02ELM28	<2	<3	5.69	6.00	20.9	20	18	<8
02ELM29	<2	<3	6.42	6.57	19.3	18	18	<8
02ELM30	<2	<3	6.22	6.48	16.6	19	15	<8
Mean	<2	<3	6.01	6.24	15.4	16	16	<8
Stand. Dev. ##	-- ###	--	0.48	0.59	3.1	3	3	--
Field No.	ICP40* Ag, ppm	ICPMS** Ag, ppm	ICP40 Al, %	ICPMS Al, %	HG-AAS# As, ppm	ICP40 As, ppm	ICPMS As, ppm	ICP40 Au, ppm
02ELMC4	<2	0.06	5.93	6.40	--	15	9.0	<8
02ELMC5	<2	0.09	6.09	6.25	--	17	8.0	<8
02ELMC6	<2	0.09	6.08	6.19	--	16	8.0	<8
Mean	--	0.08	6.03	6.28	--	16	8.3	--
Stand. Dev.	--	0.02	0.09	0.11	--	1	0.6	--

* - ICP-AES determination after a total, four-acid digestion

** - ICP-MS determination after a total, four-acid digestion

*** - Cold Vapor - Atomic Absorption Spectrometry

- Hydride Generation - Atomic Absorption Spectrometry

- Standard Deviation

- Not Determined

Table 14. Analytical results for the 2002 individual subsamples from the Elbert County Middle Field, Deer Trail, CO Study Area.—Continued

Field No.	ICP40 Ba, ppm	ICPMS Ba, ppm	ICP40 Be, ppm	ICPMS Be, ppm	ICP40 Bi, ppm	ICPMS Bi, ppm	ICP40 Ca, %	ICPMS Ca, %
02ELM01	157	616	2	1.5	<50	0.28	6.54	6.29
02ELM02	566	612	2	2.0	<50	0.42	2.34	2.31
02ELM03	667	723	2	2.0	<50	1.03	3.01	3.06
02ELM04	687	749	2	2.0	<50	0.64	3.36	3.26
02ELM05	532	612	2	2.0	<50	0.52	3.70	3.83
02ELM06	595	652	2	2.1	<50	0.51	2.05	2.05
02ELM07	623	668	2	1.9	<50	0.37	1.67	1.72
02ELM08	609	652	2	2.1	<50	0.46	1.39	1.41
02ELM09	614	700	2	2.1	<50	0.38	1.66	1.75
02ELM10	621	690	2	2.0	<50	0.37	1.82	1.85
02ELM11	692	659	2	2.0	<50	0.34	2.21	2.23
02ELM12	590	655	2	1.9	<50	0.33	2.46	2.49
02ELM13	614	658	2	2.0	<50	0.42	0.94	0.95
02ELM14	595	642	2	1.9	<50	0.54	2.41	2.40
02ELM15	639	654	2	2.0	<50	0.32	1.85	1.81
02ELM16	608	664	2	1.7	<50	0.43	2.54	2.56
02ELM17	625	661	2	1.9	<50	0.41	1.43	1.40
02ELM18	591	664	2	2.0	<50	0.37	1.39	1.41
02ELM19	602	636	2	1.7	<50	0.37	1.94	1.90
02ELM20	647	682	2	1.9	<50	0.37	0.74	0.77
02ELM21	621	678	2	2.1	<50	0.4	2.00	2.07
02ELM22	625	667	2	2.0	<50	0.42	0.80	0.78
02ELM23	733	796	2	1.5	<50	0.32	3.09	3.07
02ELM24	728	798	2	2.0	<50	0.29	2.71	2.73
02ELM25	583	658	2	2.0	<50	0.34	2.24	2.24
02ELM26	875	965	2	1.7	<50	0.24	2.53	2.43
02ELM27	583	656	2	2.2	<50	0.46	2.12	2.16
02ELM28	643	721	2	2.0	<50	0.43	2.31	2.30
02ELM29	641	674	2	2.1	<50	0.52	0.85	0.85
02ELM30	600	660	2	2.0	<50	0.38	1.53	1.52
Mean	617	684	2	1.9	<50	0.42	2.19	2.19
Stand. Dev. ^{##}	107	70	--	0.2	--	0.14	1.10	1.07
Field No.	ICP40 Ba, ppm	ICPMS Ba, ppm	ICP40 Be, ppm	ICPMS Be, ppm	ICP40 Bi, ppm	ICPMS Bi, ppm	ICP40 Ca, %	ICPMS Ca, %
02ELMC4	616	664	2	2.1	<50	0.42	2.07	2.15
02ELMC5	628	652	2	2.1	<50	0.42	2.09	2.10
02ELMC6	622	656	2	1.9	<50	0.40	2.09	2.08
Mean	622	657	2	2.0	<50	0.41	2.08	2.11
Stand. Dev.	6	6	--	0.1	--	0.01	0.01	0.04

Table 14. Analytical results for the 2002 individual subsamples from the Elbert County Middle Field, Deer Trail, CO Study Area.—Continued

Field No.	ICP40 Cd, ppm	ICPMS Cd, ppm	ICP40 Ce, ppm	ICPMS Ce, ppm	ICP40 Co, ppm	ICPMS Co, ppm	ICP40 Cr, ppm	ICPMS Cr, ppm
02ELM01	<2	0.12	53	52	8	8	25	48
02ELM02	<2	0.22	68	72	9	10	26	57
02ELM03	<2	0.34	59	60	10	11	24	93
02ELM04	<2	0.24	64	80	10	10	42	49
02ELM05	<2	0.18	60	62	9	10	28	62
02ELM06	<2	0.24	66	73	10	10	19	61
02ELM07	<2	0.22	78	82	11	12	20	58
02ELM08	<2	0.24	75	77	10	10	24	52
02ELM09	<2	0.2	74	87	11	12	24	56
02ELM10	<2	0.22	72	78	10	10	18	54
02ELM11	<2	0.19	78	82	10	11	17	56
02ELM12	<2	0.22	76	77	9	10	22	53
02ELM13	<2	0.24	80	81	11	11	23	58
02ELM14	<2	0.19	76	81	10	11	18	56
02ELM15	<2	0.21	70	76	9	9	16	42
02ELM16	<2	0.18	73	75	9	10	18	50
02ELM17	<2	0.23	81	85	11	10	22	51
02ELM18	<2	0.24	77	81	10	10	23	51
02ELM19	<2	0.15	74	73	8	8	23	44
02ELM20	<2	0.24	71	74	10	10	20	47
02ELM21	<2	0.24	73	70	11	11	23	55
02ELM22	<2	0.27	83	74	11	10	26	50
02ELM23	<2	0.28	61	60	9	10	15	27
02ELM24	<2	0.18	63	65	10	11	20	51
02ELM25	<2	0.17	65	69	10	10	20	60
02ELM26	<2	0.26	58	56	10	9	21	36
02ELM27	<2	0.23	77	74	11	11	24	57
02ELM28	<2	0.26	71	70	11	10	22	48
02ELM29	<2	0.28	74	75	11	11	20	55
02ELM30	<2	0.25	67	71	10	10	28	53
Mean	<2	0.22	71	73	10	10	22	53
Stand. Dev. ^{##}	--	0.04	8	8	1	1	5	10
Field No.	ICP40 Cd, ppm	ICPMS Cd, ppm	ICP40 Ce, ppm	ICPMS Ce, ppm	ICP40 Co, ppm	ICPMS Co, ppm	ICP40 Cr, ppm	ICPMS Cr, ppm
02ELMC4	<2	0.21	73	74	9	10	45	48
02ELMC5	<2	0.21	70	69	9	10	29	47
02ELMC6	<2	0.21	72	70	9	10	36	47
Mean	<2	0.21	72	71	9	10	37	47
Stand. Dev.	--	--	2	2	--	--	8	1

Table 14. Analytical results for the 2002 individual subsamples from the Elbert County Middle Field, Deer Trail, CO Study Area.—Continued

Field No.	ICPMS Cs, ppm	ICP40 Cu, ppm	ICPMS Cu, ppm	ICP40 Eu, ppm	ICP40 Fe, %	ICPMS Fe, %	ICP40 Ga, ppm	ICPMS Ga, ppm
02ELM01	5.8	18	17	<2	2.73	2.7	15	13
02ELM02	6.2	25	25	<2	3.45	3.6	16	15
02ELM03	4.4	40	40	<2	4.53	4.6	14	13
02ELM04	5.7	28	28	<2	3.90	4.2	16	14
02ELM05	7	24	27	<2	3.23	3.5	17	16
02ELM06	6.8	28	27	<2	3.41	3.6	16	16
02ELM07	5.8	26	24	<2	3.70	3.9	16	15
02ELM08	5.9	25	25	<2	3.17	3.2	16	15
02ELM09	6.3	24	25	<2	3.63	3.8	16	16
02ELM10	5.9	23	23	<2	3.24	3.5	16	15
02ELM11	6.2	22	23	<2	3.10	3.2	16	15
02ELM12	6	21	22	<2	2.92	3.1	16	15
02ELM13	6.6	22	24	<2	3.22	3.4	16	16
02ELM14	6.2	26	27	<2	3.26	3.4	16	15
02ELM15	5.2	22	19	<2	3.19	3.1	15	13
02ELM16	5.7	23	23	<2	2.96	3.1	16	14
02ELM17	5.6	25	25	<2	3.46	3.6	16	14
02ELM18	5.8	22	23	<2	2.99	3.2	16	15
02ELM19	4.9	19	19	<2	2.48	2.6	14	13
02ELM20	5.2	24	24	<2	3.77	3.9	14	14
02ELM21	6.2	28	26	<2	3.83	4.1	16	15
02ELM22	5.8	25	25	2	4.13	4.2	15	15
02ELM23	3	23	21	<2	4.02	4.3	11	10
02ELM24	5.8	20	21	<2	3.77	4.0	16	14
02ELM25	7.1	26	22	<2	3.47	3.7	17	16
02ELM26	4.2	20	20	<2	4.18	4.5	13	12
02ELM27	6.9	28	26	<2	3.62	3.9	17	16
02ELM28	5.6	28	26	2	4.15	4.3	15	14
02ELM29	6.1	32	29	2	4.04	4.3	16	15
02ELM30	6.1	24	24	<2	3.44	3.7	16	15
Mean	5.8	25	24	--	3.50	3.7	16	14
Stand. Dev. ^{##}	0.9	4	4	--	0.48	0.5	1	1
Field No.	ICPMS Cs, ppm	ICP40 Cu, ppm	ICPMS Cu, ppm	ICP40 Eu, ppm	ICP40 Fe, %	ICPMS Fe, %	ICP40 Ga, ppm	ICPMS Ga, ppm
02ELMC4	6.0	27	23	<2	3.50	3.5	15	14
02ELMC5	5.9	25	23	<2	3.52	3.5	15	14
02ELMC6	5.9	25	22	<2	3.57	3.4	15	14
Mean	5.9	26	23	--	3.53	3.5	15	14
Stand. Dev.	0.1	1	--	--	0.04	--	--	--

Table 14. Analytical results for the 2002 individual subsamples from the Elbert County Middle Field, Deer Trail, CO Study Area.—Continued

Field No.	CV-AAS*** Hg, ppm	ICP40 Ho, ppm	ICP40 K, %	ICPMS K, %	ICP40 La, ppm	ICPMS La, ppm	ICP40 Li, ppm	ICPMS Li, ppm
02ELM01	0.04	<4	1.68	1.65	27	30	37	36
02ELM02	0.03	<4	2.02	2.13	35	41	38	37
02ELM03	0.11	<4	2.02	2.12	31	33	26	27
02ELM04	0.07	<4	2.09	2.20	33	48	37	35
02ELM05	0.05	<4	1.89	2.08	31	34	46	46
02ELM06	0.04	<4	2.03	2.25	34	38	42	42
02ELM07	0.03	<4	2.06	2.26	39	41	35	34
02ELM08	0.04	<4	2.08	2.27	38	41	36	35
02ELM09	0.03	<4	2.00	2.26	37	45	37	37
02ELM10	0.04	<4	2.05	2.28	36	42	35	34
02ELM11	0.03	<4	2.01	2.22	39	43	39	38
02ELM12	0.02	<4	2.03	2.22	38	42	38	36
02ELM13	0.03	<4	2.07	2.33	40	45	39	37
02ELM14	0.03	<4	2.02	2.18	38	43	39	37
02ELM15	0.03	<4	2.03	2.19	36	40	30	29
02ELM16	0.03	<4	2.03	2.20	37	40	37	35
02ELM17	0.04	<4	2.14	2.30	41	43	35	32
02ELM18	0.03	<4	2.01	2.29	38	43	34	33
02ELM19	0.04	<4	2.06	2.21	37	41	31	29
02ELM20	0.04	<4	2.06	2.32	36	40	28	28
02ELM21	0.06	<4	2.07	2.31	38	39	37	35
02ELM22	0.04	<4	2.15	2.36	42	40	35	33
02ELM23	0.08	<4	1.92	2.12	33	33	18	17
02ELM24	0.05	<4	2.08	2.23	33	35	39	36
02ELM25	0.05	<4	2.14	2.34	33	37	45	43
02ELM26	0.06	<4	1.98	2.12	30	31	27	25
02ELM27	0.05	<4	2.14	2.37	39	40	42	40
02ELM28	0.06	<4	2.03	2.26	37	38	34	32
02ELM29	0.04	<4	2.15	2.35	38	41	36	34
02ELM30	0.03	<4	2.17	2.39	35	38	38	35
Mean	0.04	<4	2.04	2.23	36	39	36	34
Stand. Dev. ^{##}	0.02	--	0.09	0.14	3	4	6	6
Field No.	CV-AAS*** Hg, ppm	ICP40 Ho, ppm	ICP40 K, %	ICPMS K, %	ICP40 La, ppm	ICPMS La, ppm	ICP40 Li, ppm	ICPMS Li, ppm
02ELMC4	0.04	<4	2.11	2.2	35	41	35	34
02ELMC5	0.04	<4	2.14	2.2	34	37	35	33
02ELMC6	0.04	<4	2.17	2.1	35	37	36	33
Mean	0.04	<4	2.14	2.2	35	38	35	34
Stand. Dev.	0.00	--	0.03	--	1	2	1	1

Table 14. Analytical results for the 2002 individual subsamples from the Elbert County Middle Field, Deer Trail, CO Study Area.—Continued

Field No.	ICP40 Mg, %	ICPMS Mg, %	ICP40 Mn, ppm	ICPMS Mn, ppm	ICP40 Mo, ppm	ICPMS Mo, ppm	ICP40 Na, %	ICPMS Na, %
02ELM01	0.96	0.94	233	209	<2	1.1	0.39	0.38
02ELM02	1.10	1.06	285	314	<2	1.7	0.55	0.55
02ELM03	0.71	0.72	617	632	3	2.8	0.59	0.58
02ELM04	0.90	0.87	405	414	2	1.9	0.51	0.51
02ELM05	1.14	1.15	224	261	<2	1.6	0.45	0.47
02ELM06	1.13	1.10	285	300	2	2.0	0.51	0.53
02ELM07	0.97	0.97	384	430	<2	1.5	0.59	0.61
02ELM08	0.96	0.96	348	356	<2	1.2	0.61	0.63
02ELM09	1.03	1.06	358	378	<2	1.6	0.57	0.60
02ELM10	0.95	0.97	342	378	<2	1.3	0.59	0.62
02ELM11	1.12	1.16	289	323	<2	1.0	0.62	0.64
02ELM12	1.08	1.11	311	330	<2	0.9	0.61	0.62
02ELM13	1.08	1.08	316	329	<2	1.2	0.62	0.64
02ELM14	1.21	1.18	292	312	<2	1.3	0.60	0.60
02ELM15	0.88	0.93	350	350	<2	1.4	0.61	0.69
02ELM16	1.06	1.08	312	313	<2	1.2	0.61	0.62
02ELM17	0.88	0.88	340	365	<2	1.4	0.63	0.62
02ELM18	0.92	0.93	351	376	<2	1.2	0.61	0.63
02ELM19	0.95	0.95	252	273	<2	0.8	0.67	0.66
02ELM20	0.70	0.72	384	417	2	1.7	0.58	0.60
02ELM21	0.93	0.92	340	369	<2	1.8	0.50	0.51
02ELM22	0.86	0.87	437	446	2	1.8	0.60	0.61
02ELM23	0.51	0.49	520	584	2	1.9	0.58	0.62
02ELM24	1.25	1.25	357	396	<2	1.6	0.60	0.60
02ELM25	1.35	1.37	294	312	<2	1.4	0.56	0.56
02ELM26	0.75	0.74	441	457	2	2.0	0.59	0.61
02ELM27	1.10	1.11	330	358	2	1.4	0.54	0.55
02ELM28	0.85	0.87	391	403	2	2.0	0.56	0.57
02ELM29	0.88	0.88	356	391	2	1.9	0.58	0.59
02ELM30	1.04	1.01	315	343	<2	1.6	0.62	0.63
Mean	0.97	0.98	349	371	--	1.5	0.57	0.59
Stand. Dev. ^{##}	0.18	0.18	80	85	0	0.4	0.06	0.06
Field No.	ICP40 Mg, %	ICPMS Mg, %	ICP40 Mn, ppm	ICPMS Mn, ppm	ICP40 Mo, ppm	ICPMS Mo, ppm	ICP40 Na, %	ICPMS Na, %
02ELMC4	0.96	1.02	337	356	2	1.7	0.61	0.65
02ELMC5	0.99	1.00	341	360	2	1.7	0.61	0.63
02ELMC6	0.99	0.99	353	353	2	1.6	0.62	0.63
Mean	0.98	1.00	344	356	2	1.7	0.61	0.63
Stand. Dev.	0.02	0.02	8	4	--	--	0.01	0.01

Table 14. Analytical results for the 2002 individual subsamples from the Elbert County Middle Field, Deer Trail, CO Study Area.—Continued

Field No.	ICP40 Nb, ppm	ICPMS Nb, ppm	ICP40 Nd, ppm	ICP40 Ni, ppm	ICPMS Ni, ppm	ICP40 P, %	ICPMS P, %	ICP40 Pb, ppm
02ELM01	8	15	30	21	18	0.06	0.06	14
02ELM02	7	17	33	24	23	0.08	0.08	21
02ELM03	<4	14	30	26	42	0.16	0.16	25
02ELM04	6	16	32	25	23	0.10	0.10	20
02ELM05	9	16	30	25	25	0.08	0.09	17
02ELM06	9	17	30	26	25	0.09	0.09	22
02ELM07	9	17	36	31	24	0.08	0.08	26
02ELM08	7	18	35	24	22	0.09	0.10	22
02ELM09	8	22	33	26	25	0.08	0.08	23
02ELM10	9	18	32	23	22	0.08	0.09	21
02ELM11	10	20	36	25	23	0.08	0.08	19
02ELM12	8	19	36	22	21	0.08	0.08	17
02ELM13	10	18	35	25	23	0.08	0.09	22
02ELM14	9	18	35	26	24	0.10	0.10	22
02ELM15	8	12	33	21	21	0.08	0.08	21
02ELM16	8	17	35	23	21	0.08	0.09	19
02ELM17	9	17	36	24	22	0.09	0.09	24
02ELM18	10	18	36	23	22	0.08	0.09	21
02ELM19	7	16	35	18	18	0.09	0.09	17
02ELM20	7	18	32	24	22	0.07	0.08	25
02ELM21	8	18	34	27	25	0.08	0.08	23
02ELM22	8	18	36	24	23	0.08	0.08	25
02ELM23	6	12	32	20	18	0.09	0.09	24
02ELM24	7	22	31	23	23	0.08	0.08	21
02ELM25	9	18	31	27	24	0.07	0.08	19
02ELM26	7	15	29	22	19	0.07	0.07	23
02ELM27	9	19	35	27	24	0.09	0.09	24
02ELM28	7	18	35	28	23	0.08	0.09	25
02ELM29	7	17	33	27	25	0.08	0.09	27
02ELM30	8	18	31	25	23	0.08	0.08	22
Mean	8	17	33	24	23	0.08	0.09	22
Stand. Dev. ^{##}	1	2	2	3	4	0.02	0.02	3
Field No.	ICP40 Nb, ppm	ICPMS Nb, ppm	ICP40 Nd, ppm	ICP40 Ni, ppm	ICPMS Ni, ppm	ICP40 P, %	ICPMS P, %	ICP40 Pb, ppm
02ELMC4	15	12	28	22	23	0.08	0.09	18
02ELMC5	16	12	27	24	23	0.08	0.09	18
02ELMC6	15	12	28	23	23	0.08	0.08	18
Mean	15	12	28	23	23	0.08	0.09	18
Stand. Dev.	1	--	1	1	--	--	--	--

Table 14. Analytical results for the 2002 individual subsamples from the Elbert County Middle Field, Deer Trail, CO Study Area.—Continued

Field No.	ICPMS Pb, ppm	ICPMS Rb, ppm	ICPMS Sb, ppm	ICP40 Sc, ppm	ICPMS Sc, ppm	HGAAS Se, ppm	ICP40 Sn, ppm	ICP40 Sr, ppm
02ELM01	21	87	0.8	7	8.3	0.9	<50	205
02ELM02	28	103	1.1	8	9.8	0.9	<50	137
02ELM03	29	94	1.3	6	7.7	1.7	<50	142
02ELM04	27	103	1.1	8	9.0	1.0	<50	136
02ELM05	25	103	1.0	9	10.9	0.9	<50	243
02ELM06	29	108	1.2	9	10.5	0.9	<50	131
02ELM07	30	103	1.1	8	9.4	0.9	<50	136
02ELM08	27	103	1.0	8	9.6	0.8	<50	133
02ELM09	29	106	1.1	9	10.2	1.0	<50	140
02ELM10	26	105	1.0	8	9.6	0.6	<50	145
02ELM11	26	104	1.0	9	10.3	0.8	<50	166
02ELM12	24	104	0.9	8	9.7	0.8	<50	153
02ELM13	29	109	1.0	9	10.3	0.9	<50	116
02ELM14	27	104	1.0	9	10.0	0.9	<50	150
02ELM15	25	100	1.0	7	9.0	1.0	<50	132
02ELM16	25	100	0.9	8	9.2	0.6	<50	170
02ELM17	30	102	1.1	8	9.2	1.1	<50	127
02ELM18	28	102	1.0	8	9.4	0.8	<50	132
02ELM19	22	93	0.8	7	7.7	0.5	<50	148
02ELM20	30	102	1.2	7	8.5	1.0	<50	111
02ELM21	28	109	1.2	8	9.8	1.1	<50	118
02ELM22	31	108	1.2	8	9.1	1.2	<50	107
02ELM23	29	86	1.1	5	5.4	1.2	<50	124
02ELM24	27	103	1.1	8	9.4	1.0	<50	171
02ELM25	27	112	1.1	9	10.7	0.9	<50	157
02ELM26	29	91	1.2	6	6.8	1.3	<50	137
02ELM27	28	113	1.2	9	10.3	1.0	<50	110
02ELM28	31	102	1.3	8	8.8	1.3	<50	126
02ELM29	31	107	1.3	9	9.6	1.1	<50	113
02ELM30	29	109	1.2	8	9.2	0.9	<50	129
Mean	27	102	1.1	7.93	9.2	1.0	<50	142
Stand. Dev. ^{##}	3	7	0.1	1.01	1.2	0.2	--	29
Field No.	ICPMS Pb, ppm	ICPMS Rb, ppm	ICPMS Sb, ppm	ICP40 Sc, ppm	ICPMS Sc, ppm	HGAAS Se, ppm	ICP40 Sn, ppm	ICP40 Sr, ppm
02ELMC4	28	104	1.1	8	8.9	1.0	<50	144
02ELMC5	28	102	1.1	8	8.8	1.0	<50	145
02ELMC6	27	103	1.1	8	8.6	1.0	<50	147
Mean	28	103	1.1	8	8.8	1.0	<50	145
Stand. Dev.	1	1	0.0	--	0.1	--	--	2

Table 14. Analytical results for the 2002 individual subsamples from the Elbert County Middle Field, Deer Trail, CO Study Area.—Continued

Field No.	ICPMS Sr, ppm	ICP40 Ta, ppm	ICP40 Th, ppm	ICPMS Th, ppm	ICP40 Ti, %	ICPMS Ti, %	ICPMS Tl, ppm	ICP40 U, ppm
02ELM01	211	<40	9	11	0.24	0.28	0.56	<100
02ELM02	142	<40	11	13	0.28	0.31	0.67	<100
02ELM03	151	<40	10	11	0.21	0.24	0.62	<100
02ELM04	140	<40	11	12	0.25	0.26	0.67	<100
02ELM05	265	<40	10	12	0.28	0.32	0.71	<100
02ELM06	139	<40	11	13	0.29	0.33	0.71	<100
02ELM07	147	<40	13	13	0.28	0.32	0.67	<100
02ELM08	142	<40	12	13	0.29	0.33	0.66	<100
02ELM09	155	<40	12	15	0.28	0.36	0.67	<100
02ELM10	159	<40	12	14	0.27	0.37	0.68	<100
02ELM11	171	<40	13	14	0.30	0.39	0.69	<100
02ELM12	162	<40	12	13	0.29	0.34	0.68	<100
02ELM13	124	<40	13	14	0.30	0.34	0.69	<100
02ELM14	159	<40	13	14	0.30	0.33	0.65	<100
02ELM15	141	<40	12	13	0.26	0.31	0.63	<100
02ELM16	180	<40	12	13	0.29	0.31	0.64	<100
02ELM17	134	<40	14	14	0.29	0.32	0.65	<100
02ELM18	143	<40	12	14	0.28	0.33	0.66	<100
02ELM19	155	<40	11	12	0.27	0.31	0.60	<100
02ELM20	122	<40	12	13	0.25	0.34	0.63	<100
02ELM21	129	<40	13	13	0.27	0.33	0.68	<100
02ELM22	107	<40	14	13	0.28	0.28	0.68	<100
02ELM23	138	<40	10	10	0.19	0.18	0.55	<100
02ELM24	185	<40	11	12	0.26	0.30	0.65	<100
02ELM25	169	<40	11	13	0.29	0.34	0.70	<100
02ELM26	148	<40	9	10	0.22	0.23	0.58	<100
02ELM27	123	<40	13	14	0.28	0.35	0.72	<100
02ELM28	137	<40	12	12	0.26	0.27	0.65	<100
02ELM29	120	<40	12	14	0.29	0.34	0.67	<100
02ELM30	140	<40	11	12	0.27	0.34	0.69	<100
Mean	151	<40	12	13	0.27	0.31	0.66	<100
Stand. Dev. ^{##}	30	--	1	1	0.03	0.04	0.04	--
Field No.	ICPMS Sr, ppm	ICP40 Ta, ppm	ICP40 Th, ppm	ICPMS Th, ppm	ICP40 Ti, %	ICPMS Ti, %	ICPMS Tl, ppm	ICP40 U, ppm
02ELMC4	150	<40	11	13	0.26	0.29	0.64	<100
02ELMC5	147	<40	11	13	0.26	0.31	0.64	<100
02ELMC6	147	<40	11	13	0.26	0.29	0.63	<100
Mean	148	<40	11	13	0.26	0.30	0.64	<100
Stand. Dev.	2	--	--	--	--	0.01	--	--

Table 14. Analytical results for the 2002 individual subsamples from the Elbert County Middle Field, Deer Trail, CO Study Area.—Continued

Field No.	ICPMS U, ppm	ICP40 V, ppm	ICPMS V, ppm	ICP40 Y, ppm	ICPMS Y, ppm	ICP40 Yb, ppm	ICP40 Zn, ppm	ICPMS Zn, ppm
02ELM01	2.8	94	95	16	20	2	70	72
02ELM02	3.3	103	107	20	25	2	92	94
02ELM03	4.4	82	86	21	25	2	109	110
02ELM04	3.7	99	99	20	24	2	94	99
02ELM05	3.6	114	120	19	23	2	90	99
02ELM06	3.8	108	114	20	27	2	95	101
02ELM07	3.4	105	105	23	27	3	98	100
02ELM08	3.3	98	99	22	30	2	94	97
02ELM09	3.5	107	110	22	27	2	97	103
02ELM10	3.3	98	101	21	27	2	89	94
02ELM11	3.4	102	105	22	27	2	83	91
02ELM12	2.8	98	100	21	26	2	82	87
02ELM13	3.0	107	107	23	27	2	97	101
02ELM14	3.4	108	105	23	26	2	92	98
02ELM15	3.5	89	81	21	27	2	84	81
02ELM16	3.2	97	96	21	25	2	84	87
02ELM17	3.3	100	99	23	27	3	94	96
02ELM18	3.1	96	97	22	26	2	88	93
02ELM19	3.0	83	82	21	24	2	75	75
02ELM20	3.4	94	94	21	27	2	95	97
02ELM21	3.3	104	106	22	27	2	89	101
02ELM22	3.3	103	101	23	31	3	100	102
02ELM23	3.5	64	63	20	22	2	84	85
02ELM24	3.0	104	105	20	28	2	90	115
02ELM25	3.3	115	117	21	25	2	95	101
02ELM26	3.2	85	82	20	23	2	86	88
02ELM27	3.3	111	113	22	26	2	97	101
02ELM28	3.2	99	97	22	26	2	96	100
02ELM29	3.5	113	110	23	31	3	105	110
02ELM30	3.2	104	104	21	26	2	97	99
Mean	3.3	99	100	21	26	2	91	96
Stand. Dev. ^{##}	0.3	11	12	1	2	--	8	10
Field No.	ICPMS U, ppm	ICP40 V, ppm	ICPMS V, ppm	ICP40 Y, ppm	ICPMS Y, ppm	ICP40 Yb, ppm	ICP40 Zn, ppm	ICPMS Zn, ppm
02ELMC4	3.7	100	93	22	27	2	83	94
02ELMC5	3.5	103	91	22	26	2	85	92
02ELMC6	3.6	101	90	22	27	2	85	91
Mean	3.6	101	91	22	27	2	84	92
Stand. Dev.	0.1	2	1	--	--	--	1	2

Table 15. Analytical results for gross alpha and beta and plutonium isotopes for the 1999, 2000, and 2002 composite soil samples.

Sample*	Gross Alpha pCi/g	Gross Beta pCi/g	Pu 238 pCi/g	Pu 239+240 pCi/g
99ARL	13±9	22±7	0.01±0.02	0.00±0.01
99ARM	15±16	27±8	0.00±0.01	0.00±0.01
99ARU	16±12	28±8	0.00±0.01	0.02±0.02
99ELL	14±14	24±7	0.01±0.02	0.00±0.01
99ELM	17±12	28±7	0.01±0.03	0.00±0.01
99ELU	13±11	31±9	0.01±0.02	0.00±0.01
00ELL	24.3±7.0	26.1±5.3	0.000±0.014	0.000±0.011
00ELM	22.8±6.9	26.1±5.4	0.004±0.011	0.018±0.019
00ELU	21.6±6.8	25.8±5.3	-0.002±0.016	0.018±0.020
00ARL	19.2±5.9	24.9±5.1	-0.009±0.018	0.002±0.013
00ARM	30.4±7.9	20.4±4.6	0.006±0.015	0.002±0.013
00ARU	25.1±7.0	24.7±5.1	-0.010±0.019	0.005±0.015
02ELU	14.7±1.9	25.7±2.7	0.0000±0.0018	-0.0018±0.0027
02ELM	15.6±2.0	27.4±2.9	0.0000±0.0010	0.0018±0.0028
02ELL	18.6±2.3	24.3±2.6	0.0000±0.0036	0.0106±0.0070
02ARU	5.5±1.0	20.8±2.3	0.0000±0.0040	0.0040±0.0040
02ARM	18.9±2.4	28.4±3.0	0.0000±0.0042	0.0041±0.0080
02ARL	11.6±1.6	23.3±2.5	-0.0037±0.0037	0.0000±0.0027
Blank	0.05±0.06	0.14±.09	-0.0066±0.0065	0.0000±0.0065
Reporting Limit	<1	<5	<0.06	<0.06

* First two digits are the last two digits of the sampling year; AR is for Arapaho County; EL is for Elbert County; L is for the lower field; M is for the middle field; and, U is for the upper field.