# Results of the 1991 U.S. Bureau of Mines Colville Mining District Study

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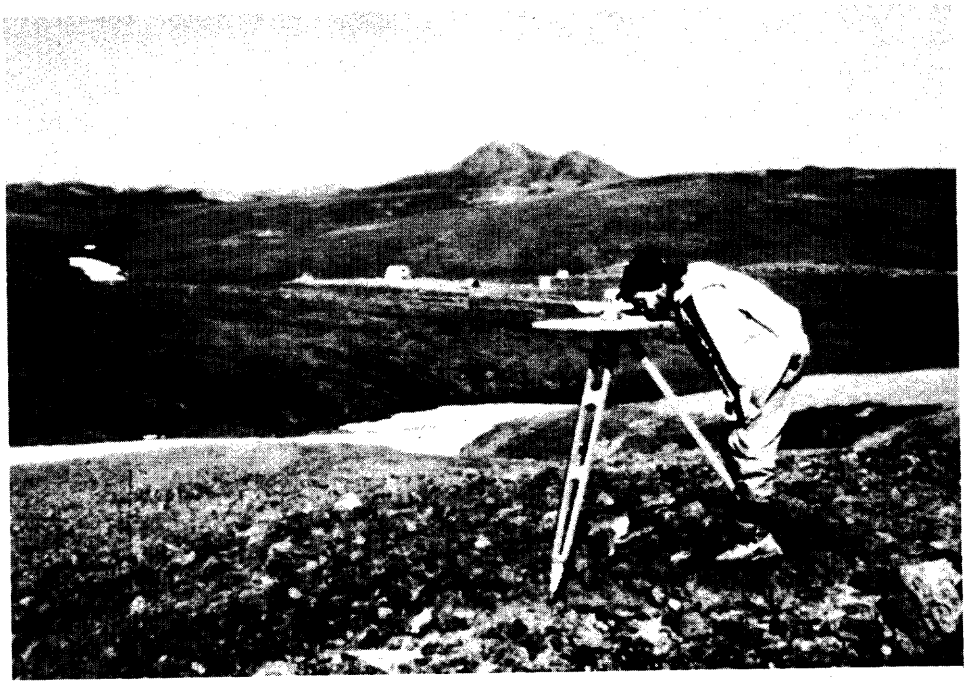

UNITED STATES DEPARTMENT OF THE INTERIOR

Manuel Lujan, Jr., Secretary

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T S Ary, Director

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## UNIT OF MEASURE ABBREVIATIONS USED IN THIS REPORT

| | |
|---|---|
| ° | degree |
| % | percent |
| F | Fahrenheit |
| oz/t | troy ounce per short ton |
| ppb | parts per billion |
| ppm | parts per million |
| t | short ton |

# Results of the 1991 U.S. Bureau of Mines Colville Mining District Study

By Mark P. Meyer[1] and Joseph M. Kurtak[2]

ABSTRACT

The U.S. Bureau of Mines is conducting a four-year study to assess the mineral resources and the mineral development potential of the Colville Mining District. This study is part of the Bureau's ongoing statewide mining district evaluation program. The mining district is in northern Alaska and includes the Colville River drainage basin and a part of the southern National Petroleum Reserve - Alaska. Section 105(c) of the Naval Petroleum Reserves Act of 1976 mandated that a mineral inventory of the petroleum reserve be completed. During 1977 and 1978, the USGS conducted preliminary regional geologic mapping and regional geochemical sampling while the Bureau conducted site-specific examinations and detailed sampling of identified mineral occurrences. This report summarizes the Bureau's 1991 field program.

During 1991, the Bureau spent 56 days studying the area between Rampart Creek and the Okokmilaga River within the southern part of the mining district. The reconnaissance section of the study concentrated on the location and identification of deposits of barium, chromium, copper, lead, manganese, silver, zinc as well as other types of mineralization. Nineteen mineral occurrences, including twelve occurrences that were previously unreported, were identified, examined, and sampled. Anomalously high concentrations of antimony, arsenic, barium, cadmium, chromium, manganese, nickel, strontium, and titanium were found in several drainages. Detailed geologic mapping along with rock and soil sampling were conducted at Drenchwater Creek, Kady, Kivliktort Mountain East, Kivliktort Mountain West, Koiyaktot Mountain East, Koiyaktot Mountain West, and Story Creek. Bulk samples collected from Drenchwater Creek, Story Creek, and western Ivotuk Hills were sent to Bureau Research Centers for chemical analyses, characterization, and beneficiation studies.

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## INTRODUCTION

In 1991, the U.S. Bureau of Mines (Bureau) initiated the four-year Colville Mining District (CMD) study in order to evaluate the mineral deposits and their development potential (fig. 1). The mining district in northern Alaska includes the Colville River drainage basin and a part of the southern National Petroleum Reserve - Alaska (NPRA). Section 105(c) of the Naval Petroleum Reserves Act of 1976 (PL 94-258) mandated that a mineral inventory of the NPRA be completed. The Bureau and the U.S. Geological Survey (USGS) were responsible for the original 105(c) mineral inventory during 1977 and 1978. The USGS conducted regional geologic mapping and regional geochemical sampling programs while the Bureau conducted site-specific examinations and detailed sampling of mineral occurrences. The 1991 study of the CMD is part of the Bureau's ongoing statewide mining district evaluation program.

The ultimate objectives of this investigation are to: 1) identify the mineral deposits of the CMD; 2) study the application of modern beneficiation technologies on known deposits, and perform a probabilistic mineral resource and economic assessment of the mining district; and 3) perform mining feasibility studies using approximate mine models. This investigation is a cooperative effort involving the Bureau and the Alaska Division of Geological and Geophysical Surveys (DGGS).

In 1991, the Bureau conducted both reconnaissance sampling of the central part of the mining district and completed detailed examinations of selected mineral occurrences. This report summarizes the work completed during the 1991 field season and is the first in a series of annual summary reports covering the Bureau's CMD field work.

## LAND STATUS

Land ownership of the CMD includes those managed by the Bureau of Land Management (BLM), U.S. National Park Service (NPS), State of Alaska, and Native regional and village corporations. The BLM manages the NPRA which is open for oil and gas exploration but unavailable for mineral exploration and development. The NPS manages the Gates of the Arctic National Park, Preserve, and Wilderness, which are closed to oil, gas, and mineral exploration and development. The State of Alaska has selected land in the area which include those that are and are not available for mineral exploration and development. Native regional and village corporations have selected lands in the area. These native lands may be available for mineral exploration and development subject to the management policies of the corporations. Small parcels of private inholdings are also located within the CMD.

## LOCATION AND ACCESS

The CMD is in northern Alaska along the northern slope of the Brooks Range (fig. 1). The area includes the northern divide drained northward by the Colville, Kokolik, Kugra, Kukpowruk, Meade, Titaluk, and Utukok Rivers into the Arctic Ocean. Three physiographic provinces cover the area and include: the Arctic Coastal Plain, the Arctic Foothills, and the Central and Eastern Brooks Range. The Arctic Coastal Plain physiographic division is characterized by a low lying smooth plain rising from the Arctic Ocean southward to an elevation

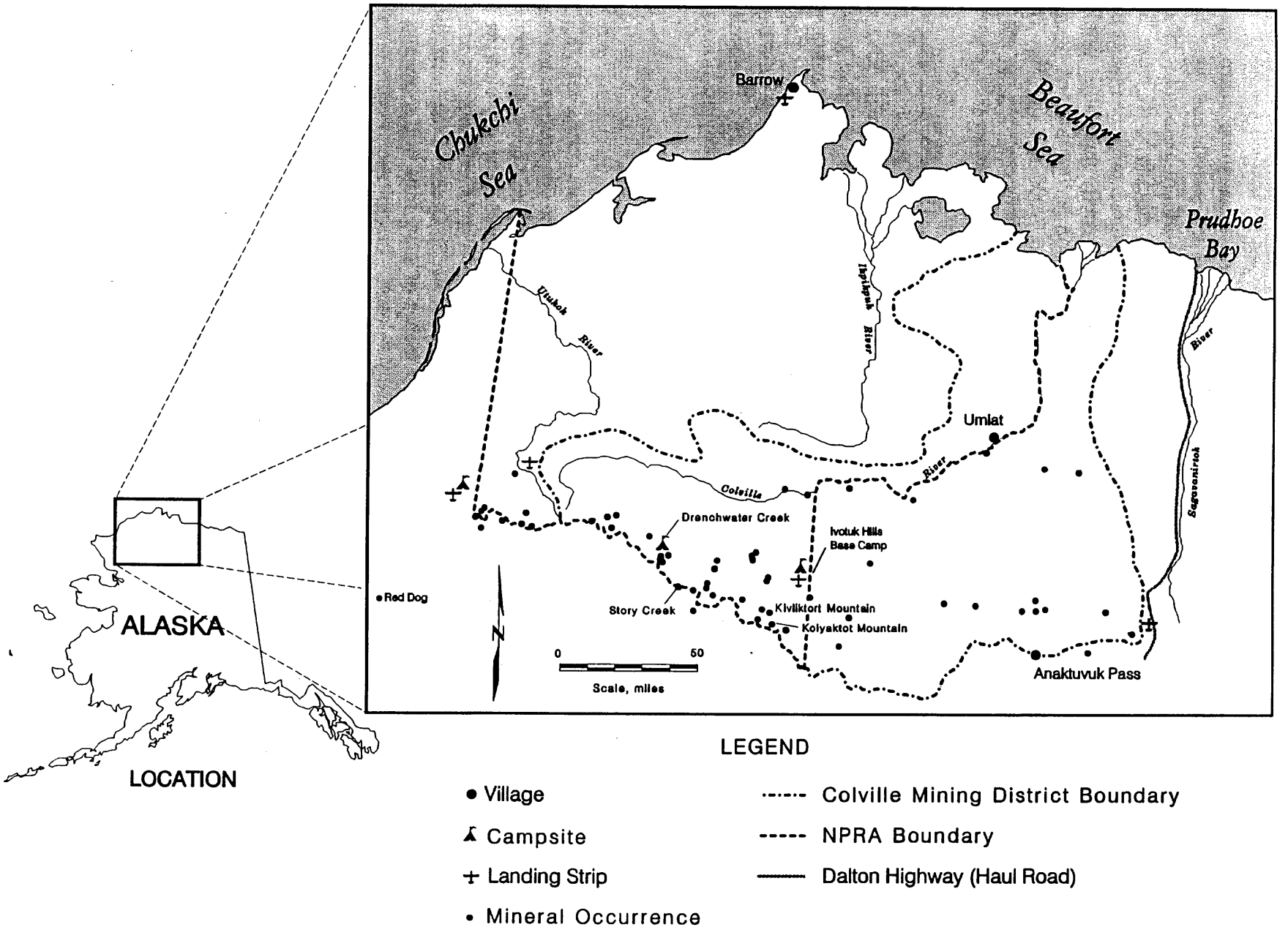


FIGURE 1. - Location Map of the CMD study area.

of 600 feet. Numerous lakes occur in the low lying areas and an occasional abrupt scarp, up to 200 feet high, separates the coastal plain from the foothills. The Arctic Foothills physiographic division consists of rolling plateaus and low linear mountains. The northern mountains, rising in elevation from 600 to 3,500 feet, have broad east-trending ridges dominated by mesa-like mountains. The southern mountains are characterized by irregular buttes, knobs, mesas, east-trending ridges ranging from 1,200 to 3,500 feet, and intervening gently undulating tundra plains. The Central and Eastern Brooks Range physiographic division is composed of rugged glaciated east-trending ridges with elevations ranging from 3,000 to 7,000 feet (372)[3]. The higher elevations in the Brooks Range are devoid of trees and have lichens covering the rocky slopes. At the lower elevations the vegetation grades into typical tundra species with stunted alder and willow along the river gravel bars.

Villages within the study area include Umiat and Anaktuvuk Pass. Umiat is located on the north bank of the Colville River 75 miles south of Harrison Bay. Anaktuvuk Pass is located on the southern boundary of the study area at the headwaters of the John and Anaktuvuk Rivers.

There are no roads, highways, or railroads within the study area. A few useable gravel airstrips are within the study area and these are at Umiat, Ivotuk, Kikiktat Mountain, Anaktuvuk Pass, and Galbraith Lake. An airstrip, located 20 miles west of the study area, along Eagle Creek, is useful for access to the western part of the study area. Access to the villages and base camps within the study area is by aircraft from either Barrow, Bettles, Deadhorse, Fairbanks, or Kotzebue. The Dalton Highway, just outside the eastern boundary of the study area, makes for access to the eastern part of the study area.

## CLIMATE

The north slope of the Brooks Range lies within a zone of continuous permafrost (372). Average summer temperatures range between 29° and 44° F and winter temperatures average between -26° and -6° F in Barrow (191). Mid-day temperatures of 85° F have been experienced at the Ivotuk airstrip. Strong winds blow persistently throughout the year, generally blowing in from either the southwest or northeast. Summer afternoon rainstorms and thunderstorms arrive from the southwest while morning fog banks move in from the Arctic Ocean to the northeast.

Annual precipitation in the area is low, less than 5 inches of snow falls in Barrow and 11 inches in Anaktuvuk Pass, making the area technically a desert. Precipitation occurs mostly as snow, but scattered light rain is common during the summer months, along with occasional thunder storms during the afternoons (191).

## GEOLOGIC SETTING

The CMD consists of an intensely folded and faulted middle Paleozoic suite through lower Mesozoic sedimentary succession overlying a basement of lower Paleozoic and Precambrian sedimentary, volcanic, and plutonic rocks (134). Two major terranes are in the study area: a

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[3]Underlined numbers in parentheses refer to the references found in the bibliography preceding the appendix.

southern basement section, and a northern overlying section. The southern section is composed of Devonian black shale and chert of the Mississippian Lisburne Group, overlain by argillite and chert of the Permian Siksikpuk Formation. This in turn is overlain by lime chert, limestone, and shale of the Triasic Shublik Formation (101). This thin sequence is overlain, to the north, by a thick section of Cretaceous age coarse clastic rocks (101).

Metallic mineral deposits found within the CMD consist of sediment- and/or volcanic-hosted sulfide deposits (134). The predominant type of metallic mineral deposits are the shale-hosted Zn-Pb-(Ba) deposits. These deposits occur within thrust sheets of Mississippian shale, sandstone, and limestone (101). Also located in the area are occurrences of breccia-hosted sphalerite, and galena within upper Devonian to lower Mississippian sandstone, siltstone, shale, and limestone (101).

Other types of mineral deposits occurring in the CMD include coal, oil sands, strategic and critical minerals, and industrial minerals. Industrial minerals include phosphate, barite, and clay. Limestone of the Mississippian Lisburne Group covers a large section of the study area and sand and gravel deposits are along the river drainages.

## PREVIOUS STUDIES

The USGS started investigating Alask's Northslope for mineral and fuel resources in the early 1900's (43-44, 216, 329). Additional investigations occurred during the 1920's (336) with a lull in exploration during the 1930's followed by renewed interest during the 1940's and 1950's for oil (288). A USGS metallic mineral resource appraisal program was conducted between 1974 and 1982 (102, 231, 277, 359). Cobb published the first summary of metallic resources of Northern Alaska in 1975 (104) including mineral occurrences within the CMD study area. An update report of the metallic resources was published in 1981 (109).

Currently the USGS, with assistance from the DGGS, is conducting an Alaska Mineral Resource Appraisal Program (AMRAP) study on the Killik River quadrangle. The USGS wrote an administrative report summarizing the historical geologic, geochemical, and geophysical work that has been conducted within the Howard Pass, western Killik River, and Misheguk Mountain quadrangles (326).

Private companies and Native corporations have carried out exploration within the NPRA. Regional reconnaissance studies were conducted during the late 1950's and early 1960's, while site-specific studies were conducted at Drenchwater Creek, Story Creek, and Kivliktort Mountain during the 1980's (326).

The Bureau and the USGS appraised the mineral resources of the southern part of the NPRA during 1977 and 1978. During the field investigations, the USGS conducted regional geological mapping to determine the geological setting of the NPRA and mapped in detail zones of mineral potential. Regional geochemical surveys (359-360) were conducted by the USGS; the analytical results and preliminary interpretation were used in selecting areas of anomalous concentrations of specific elements for further detailed sampling and investigations. Eighty drainages with anomalous mineral concentrations were identified from the USGS geochemical surveys. The Bureau's field work consisted of traversing those drainages containing the geochemical anomalies in search of the source rock. Stream sediments and select rock samples were collected from the drainages to define and identify further zones of mineralization. Due

to time constraints, the Bureau examined only 25 of the drainages with lead-zinc anomalies during the two years of field work (189-193). The drainages containing geochemical anomalies are within a 120-mile long east southeast - west - northwest trending mineral belt that may be an eastern extension of the mineralized terrain that hosts the world-class Red Dog lead-zinc-silver mine, located southwest of the NPRA.

Additional sulfide mineralization was identified and sampled, by the Bureau, in widely scattered areas along the geochemical trends delineating the regions east-west geological structure. Barium, chromium, fluorite, phosphate, rare earth elements (e.g. lanthanum, scandium, and yttrium), and vanadium were also noted within the NPRA (189-193).

The Bureau conducted an 8-day program during 1990 to get an orientation and overview of the area and its known mineralization. Nine mineralized occurrences were visited including: Drenchwater Creek, Isiktut Mountain, Kivliktort Mountain East, Kivliktort Mountain West, Koiyaktot Mountain West, Lisburne Ridge, Otuk Creek, Safari Creek, and Story Creek (237).

## 1991 FIELD PROGRAM

The Bureau started a four-year field study program of the CMD during 1991. The study area covers approximately 10 million acres from a combination of 16.64 million acres within the Colville River drainage and 23 million acres within the NPRA. Two separate crews were working in the area: one crew carried out a regional reconnaissance of the study area, a second crew worked on site-specific investigations which included detailed geologic mapping and rock and soil sampling at Drenchwater Creek, Kady, Kivliktort Mountain East, Kivliktort Mountain West, Koiyaktot Mountain East, Koiyaktot Mountain West, and Story Creek.

The part of the study area between Rampart Creek, to the west, and the Okokmilaga River, to the east, was investigated during 1991 for lead, zinc, copper, silver, barium, manganese, chromium, as well as other types of mineralization. Approximately 97% of the identified USGS geochemical stream sediment anomalies were followed up during the 56-day field season. A total of 202 rock and placer samples were collected during the regional reconnaissance portion of the study; 534 samples were collected during the site-specific portion of the study (Appendix). Sample locations are plotted on a set of 1:250,000 scale base maps (figs. 2-4). Site-specific sample locations are also plotted on figures 5 and 6.

Bulk samples were taken for characterization and testing at three locations. Two bulk samples, one from Story Creek and the other from Ivotuk Hills, were sent to the Bureau's Research Center in Albany, Oregon, while the third bulk sample, from Drenchwater Creek, was sent to the Bureau's Research Center in Salt Lake City, Utah. Chemical analyses of the Story Creek bulk sample are listed in Table 1 and the chemical analyses of the Ivotuk Hills bulk sample are listed in Table 2. Chemical analyses for the Drenchwater Creek bulk sample are not available at this time. Characterization and beneficiation studies of the bulk samples have not yet been started by either of the Research Centers.

TABLE 1. - Chemical analyses of the Story Creek bulk sample

| Analyses (%) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Co | Cu | Fe | Mn | Ni | Pb | S | $SiO_2$ | Zn |
| 0.017 | 0.014 | 3.76 | 0.085 | 0.028 | 2.11 | 3.18 | 71.2 | 5.37 |

TABLE 2. - Chemical analyses of the Ivotuk Hills bulk sample

| Analyses (%) | | | | | | |
|---|---|---|---|---|---|---|
| C | TOC | CaO | MgO | Mn | $P_2O_5$ | S |
| 3.47 | 2.93 | 45.9 | 0.71 | 0.004 | 36.61 | 0.671 |

| Analyses (%) | | | | | | |
|---|---|---|---|---|---|---|
| $SiO_2$ | V | La | Nd | Th | U (ppm) | Y |
| 9.52 | 0.11 | 0.012 | 0.021 | 0.002 | 150 | 0.022 |

TOC Total organic carbon

## SAMPLING

Rock samples consisted of fresh, altered, and/or mineralized material that was collected from either outcrop, rubblecrop, or float, in/or near mineral occurrences or apparent mineral occurrences. Rock samples collected were of six types: 1) continuous chip; rock fragments broken in a continuous line for a measured distance across an exposure; 2) random chip; rock fragments collected at random points from an apparently homogenous mineralized occurrence; 3) chip channel; rock fragments collected along a channel of uniform width and depth across the exposure of mineralized rock; 4) channel; rock fragments and dust collected from a channel of uniform width and depth cut across an exposure of mineralized rock; 5) select; rock collected from the highest grade portion of a mineralized zone; and 6) grab; rock collected more or less at random from an outcrop or float.

Soil samples were collected from the thin C horizon characteristic of arctic soils. Samples collected near the surface were obtained with a plastic hand trowel while stainless steel hand augers were used to sample the horizon beneath a 1 to 2.5 foot thick tundra cover.

Placer samples were collected from stream and river gravel bars in areas having anomalous

48 inch sluice box. The concentrates collected in the sluice box were then panned down to produce approximately 75 grams of concentrate. The panning method consisted of collecting a concentrate by panning down a 16 inch pan load of stream or bank gravel. If more than one pan was collected from the same location, the concentrate was combined and analyzed as one sample. All the concentrates were analyzed for the elements listed in the appendix.

Bulk rock samples were collected from 3 different parts of the study area. The samples were collected from sections of the mineral occurrences which were considered to be generally representative of high-grade mineralization. Bulk rock samples weighed between 200 and 300 lbs each.

## ANALYTICAL PROCEDURES

Analytical procedures for the placer samples involved gravimetric recovery and weighing of the visible platinum or gold, grinding the remaining concentrate to pass through -140 mesh, and performing an inductively coupled plasma (ICP) spectroscopic analysis to determine the elemental content. Further analysis by atomic fluorescence spectroscopy (AFS) was performed to determine the quantity of gold, platinum, and/or palladium contained in the placer concentrates[4]. Rock samples were ground to -140 mesh and analyzed by ICP spectroscopy. Any sample that contained visible quantities of minerals composed of either silver, copper, lead, zinc, or PGM minerals were fire assayed or analyzed by atomic absorption spectroscopy. Soil samples were sieved through an 80 mesh screen prior to analysis. The detection limits for the elements that were analyzed by ICP, AFS, and fire assay methods are listed in Tables 3 and 4.

## RESULTS

This report presents the findings of the field investigations which were completed during the 1991 field season; it is not a comprehensive or conclusive discussion of the entire CMD project.

The location of the samples taken during the 1991 field season are shown on figures 2, 3, 4, 5, and 6. The locations of the mineral occurrences examined during the 1991 field season are shown on figures 2 and 3. The appendix correlates the map numbers with the name and/or location of the mineral occurrence, and lists information on the U.S. public land survey grid, year the sample was collected, sample site and type, basic rock types, and analytical results for each sample.

In the discussion below, sample results are referred to by sample location and number. Sample location refers to the actual geographic location or occurrence name where a sample was collected in the field. Sample number refers to the number that was assigned to a sample when it was collected in the field. Map number refers to the numbering system used on figures 2, 3, and 4, that is used to geographically represent the locations of samples. Some map numbers represent more than one sample number due to tight sample spacing in the field.

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[4]All placer sample values correspond to the concentration of elements in the sample concentrate.

and 4, that is used to geographically represent the locations of samples. Some map numbers represent more than one sample number due to tight sample spacing in the field.

## MINERALIZED OCCURRENCES

Nineteen mineral occurrences were examined and sampled during the 1991 regional reconnaissance. The seven previously reported occurrences include; Drenchwater Creek, Kady, Kivliktort Mountain East, Kivliktort Mountain West, Koiyaktot Mountain East, Story Creek, and Vidlee (See figures 2, and 3 for property locations). Detailed mapping and sampling were conducted at Drenchwater Creek, Kady, Kivliktort Mountain East, Kivliktort Mountain West, Koiyaktot Mountain East, Koiyaktot Mountain West, and Story Creek. Twelve of the occurrences were previously unreported and include; Ivotuk Hills, Kakivilak Creek, Kakivilak Creek North, Koiyaktot Mountain West, Kurupa River Southwest, Outwash Creek North, Outwash Creek Northeast, Outwash Creek South, Outwash Creek Southeast, Outwash Creek South-Southwest, Outwash Creek Southwest, and Outwash Creek West. The mineral occurrences are discussed in alphabetical order.

According to the literature research conducted prior to these field studies, the following occurrences have not been previously documented publicly: Ivotuk Hills, Kakivilak Creek, Kakivilak Creek North, Kivliktort Mountain East, Kivliktort Mountain West, Koiyaktot Mountain East, Kurupa River Southwest, Outwash Creek North, Outwash Creek Northeast, Outwash Creek South, Outwash Creek Southeast, Outwash Creek South-Southwest, Outwash Creek Southwest, and Outwash Creek West.

### Drenchwater Creek

The Drenchwater Creek occurrence is between Drenchwater and Wager Creeks which drain the DeLong Mountains. Site-specific work on the occurrence included detailed geologic mapping, soil, rock, and bulk sampling, and a geophysical survey by a USGS crew.

Rocks in the vicinity are mainly interbedded shales and silicified mudstone of the Mississippian-Pennsylvanian Kuna and Siksikpuk Formations. Intercalated with the sedimentary rocks are tuffaceous volcanic rocks and trachytes. The entire sequence strikes approximately N 70° W and dips to the south. The rocks have been thrust faulted to the north, causing possible repetition of some units, and have been offset by several north-south trending near-vertical faults.

Sulfides consist mainly of pyrite, sphalerite, and galena occur as: 1) semi-massive and massive pods and lenses within silicified mudstones; and 2) fracture fillings and veinlets up to 1 inch wide cutting the silicified mudstone, shale, and tuff. Many fracture surfaces show no visible sulfides but contain abundant boxworks after sphalerite.

A total of 22,500 feet of gridline was surveyed in at the occurrence as a base for geochemical sampling, geologic mapping, and geophysical surveys (fig. 5). Grids were located both on the east and west side of Drenchwater Creek. Where possible, both rock and soil samples were collected at 100 foot intervals along the gridlines and all known mineralized outcrops were sampled. Samples from mineralized outcrops contained up to 10% zinc (sample no. 5393), 9.8% lead (sample no. 5366), 1.46 oz/t silver (sample no. 5366), and 2,000 ppm barium (sample no. 5289). Soil samples contained up to 5,525 ppm zinc (sample no. 5084),

10,000 ppm lead (sample nos. 5220 and 5327), and 2,000 ppm barium (sample nos. 5041 and 5106). Soil samples containing anomalously high levels of zinc and lead concentrations outline a trend which extends for up to 3,200 feet across the south side of the east grid. No significant geochemical anomalies were noted in the soil and rock samples collected from the west grid.

The geology of the main mineralized area was mapped (1:2400 scale) by a Geology Department graduate student from the University of Alaska, Fairbanks. This information will be published as a thesis at a later date (376).

USGS geophysicists conducted magnetometer and gravimetric surveys over the eastern grid. The magnetic survey showed no anomalies, but a gravity high extends from gridline 3W+00 to 4E+00. At this point the high is offset approximately 500 feet to the northeast to gridline 8E+5N. It then continues east along strike through gridline 20E+6N (247). The results of the geophysical surveys will be published at a later date by the USGS.

## Ivotuk Hills

The Ivotuk Hills phosphate occurrence is along Otuk Creek on the western end of the hills. Two samples (4080, 4219) taken of Mississippian Lisburne Group oölitic limestone contained 126 and 150 ppm uranium. A bulk sample of the oölitic limestone contained 36.61% $P_2O_5$ and 150 ppm uranium (Table 2).

## Kady

This sulfide occurrence is near the headwaters of an unnamed tributary of Outwash Creek within the Gates of the Arctic National Park (fig. 3). This occurrence was identified as a result of USGS geochemical sampling in this area (133).

Rocks in the area consist of sandstone and siltstone members of the upper Devonian-lower Mississippian Kanayut Conglomerate which has been intensely folded with fold axis trending in an approximate east-west orientation. The occurrence consists of sulfide-bearing veins and quartz-cemented sandstone/mudstone vein breccias which cut the Kanayut conglomerate. The vein breccia pinches and swell along strike and contain massive and disseminated sphalerite, galena, and chalcopyrite. The veins are oriented primarily: north-south and northeast.

The largest concentration of sulfides occurs at the main zone, where rubblecrop and float indicate a width ranging from 12 to 100 feet traceable along strike for 750 feet. The sulfide-rich breccias have been extensively weathered. Exposures contain abundant limonite stain and boxwork structures. The main zone had 6 samples (4071-76) taken which contained <0.01 - 23.56% lead, 1.30 - 35.79% zinc, 0.035 - 700 ppm copper, and 0.009 - 4.04 oz/t silver. A grab sample (5447) across a 35 foot wide zone of float from the vein contained 1.96% lead, 10% zinc, 15.1 ppm silver, and 29 ppb gold. The south zone (Red Anchor vein) had three samples (4181-83) taken which contained 0.01 - 8.99% lead, <0.01 - 1.00% zinc, <0.01 - 10.91% copper, and 5.0 ppm - 2.68 oz/t silver. The northwest zone (Kady-extension) had two samples (4222-23) taken which contained 0.02 - 0.06% lead, 0.03 - 0.40% zinc, and 0.14 - 2.69% copper. The central zone (Advil vein) had four samples (4155, 4171-73) taken which contained <0.01 - 0.44% lead, 2.20 - 22.01% zinc, and 0.36 - 3.64% copper. A 10 foot continuous chip sample (5556) across the width of the Advil vein contained 0.10% lead, 10% zinc, 11.4 ppm

silver, 1.66% copper, and 82 ppb gold.

## Kakivilak Creek

A piece of highly anomalous mineralized float was found on an unnamed northwest tributary of Kakivilak Creek within the Gates of the Arctic National Park (fig. 3). One sample (4194) from the slate float with visible pyrite, galena, and chalcopyrite contained 15.37% lead, 0.07% zinc, and 0.64% copper. The source of the float was not located during the 1991 field season.

## Kakivilak Creek North

The Kakivilak Creek North occurrence is along a ridge near the headwaters of Kakivilak Creek within the Gates of the Arctic National Park (fig 3). Three samples (4195-97) were taken from quartz veins containing visible galena, chalcopyrite, and sphalerite. The veins crop out along the crest of a south-trending ridge. The samples contained 0.08 - 3.61% lead, 0.03 - 7.72% zinc, and <0.01 - 0.64% copper. A quartz vein containing visible galena was sampled along the southeastern part of the ridge. A sample (4217) of this vein contained 3.41% lead, 0.11% zinc, and 46 ppm copper. A piece of quartz float (sample no. 4218) located downslope from the main quartz veins with visible galena contained 2.44% lead, 1.14% zinc, and 0.02% copper. Anomalously high silver, 2.76 oz/t (sample no. 4196), was noted from this occurrence.

## Kivliktort Mountain East

The Kivliktort Mountain East area (fig. 2) was reexamined after the discovery of sulfides in 1990 (237). Ridgetops and gullies near the head of the drainage were prospected in an effort to locate the source of the sulfide-bearing float found in the stream bottom. Sulfide float and rubblecrop were located at the 2,650 foot elevation on the west side of a small southerly tributary to the main drainage. Here the Kanayut Conglomerate contains numerous quartz veinlets and quartz-cemented sandstone breccia. Galena and malachite staining were observed in the veinlets and breccia. A select sample (5433) contained 4.31% lead, 0.12% zinc, and 2.4 oz/t silver. The sulfides were confined to a 20 by 50 foot area. Further prospecting in the vicinity located no extensions to the mineralization.

## Kivliktort Mountain West

The Kivliktort Mountain West occurrence (fig. 2) is at the western end of Kivliktort Mountain, straddling an eastern tributary to the Etivluk River. It was discovered by the Bureau in 1990 (237). Sulfides at the occurrence are associated with the Shanin Lake member of the upper Mississippian-lower Devonian Kanayut Conglomerate. The conglomerate occurs as klippe juxtaposed over shales and siltstones of the younger Stuver member of the Kanayut. Silicified sandstone breccias occur locally and are best exposed as rubble in frost boil zones at the base of several of the klippe. The breccias are exposed along bleached weathering surfaces which can be spotted from a distance.

The sandstone breccias contain scattered sulfides over a 2,500 by 4,200 foot area on both the east and west sides of the Etivluk tributary. Sphalerite and minor galena occur both as fine-grained matrix cement and as fragments within the breccias. Locally, up to 1 inch square fragments of sphalerite occur. The dissolution of the sphalerite during weathering has left vugs in the sandstone breccia. Samples of the sandstone breccia contain up to 15% zinc (5437), 1.5% lead (5441), 3.4 oz/t silver (5442), and 2,000 ppm barium (5551, 5554).

Massive sphalerite also occurs as fracture fillings in unbrecciated sandstone. A sample of the massive sphalerite (5601) contained up to 31.4% zinc, 0.49% lead, and 5.9 oz/t silver. The largest exposure of the mineralized rubble occurs in a 50 by 150 foot frost boil zone 800 feet northeast of the creek at an elevation of 2,100 feet. The amount of sulfides exposed at the occurrence is not significant, but may indicate a sulfide zone to the south, covered by the upper plates of thrust sheets.

## Koiyaktot Mountain East

The Koiyaktot Mountain East occurrence is on an unnamed tributary of the Nigu River draining the southeastern part of Koiyaktot Mountain (fig. 2). Ten samples (4059-62, 4115-16, 4118, 4128-29, 5565) were taken from frost boils along a north-south trending zone of quartz veinlets and quartz-cemented sandstone breccia float and rubble containing galena and sphalerite that is locally massive. The samples contained <0.01 - 39.89% lead, 0.03 - 23.94% zinc, 4 - 875 ppm copper, and 4.14 - 53.59 oz/t silver.

## Koiyaktot Mountain West

The Koiyaktot Mountain West occurrence (fig. 2), on the west side of Koiyaktot Mountain, 4.5 miles northeast of Iuyorurak Pass, was discovered by the Bureau during 1990 (237). Rocks in the area consist of northwest-striking, south-dipping, Kanayut sandstone which locally contains numerous small folds. Within the sandstone a series of four small mineralized zones are scattered over a 0.5 mile distance along a north-south linear trend. The largest zone consists of a 50 by 300 foot area of quartz vein stockwork and sandstone breccia float. The float locally contains pieces of massive sphalerite cut by quartz and galena veinlets. Samples (5459, 5464) contain up to 43.9% zinc, 3.27% lead, and 7.15 oz/t silver.

## Kurupa River Southwest

The Kurupa River Southwest occurrence is on an unnamed tributary of the Kurupa River within the Gates of the Arctic National Park (fig. 3). Five samples (4167-70, 4200) of bedrock consisting of sandstone with quartz veining with visible chalcopyrite and malachite staining contained 0.01 - 0.56% copper. A sample of malachite and azurite stained float (4187) with visible chalcopyrite contained 0.15% copper.

## Outwash Creek North

The Outwash Creek North mineral occurrence is near the headwaters of Outwash Creek

within the Gates of the Arctic National Park (fig. 3). Four samples (4162-65) of float material from sandstone to conglomerate contained <0.01 - 1.49% lead, 0.01 - 0.29% zinc, <0.01 - 0.87% copper, and 238 ppm - 2.96% manganese. The source of the float was not located during the 1991 field season.

## Outwash Creek Northeast

The Outwash Creek Northeast occurrence is on an unnamed tributary of Outwash Creek within the Gates of the Arctic National Park (fig. 3). Two samples (4179, 4201) of sandstone and quartz with azurite and malachite staining contained 29 and 23 ppm lead, 0.20 and 0.57% zinc, and 0.13 and 0.09% copper, respectively. A sample (4178) of float contained 1.09% lead, 49 ppm zinc, and 45 ppm copper. The source of the mineralization was not located during the 1991 field season.

## Outwash Creek South

The Outwash Creek South mineral occurrence is near the headwaters of an unnamed tributary of Outwash Creek within the Gates of the Arctic National Park (fig. 3). Two samples (4202-03) of sandstone rubblecrop with visible galena and pyrite contain 0.6 and 0.18% lead and 1.98 and 0.28% zinc, respectively. The source of the float was not located during the 1991 field season.

## Outwash Creek Southeast

The Outwash Creek Southeast mineral occurrence is near the headwaters of Outwash Creek within the Gates of the Arctic National Park (fig. 3). A sample (4205) taken of quartz float with visible galena and sphalerite contained 0.33% lead, 7.26% zinc, and 173 ppm copper. A sample (4206) taken of siltstone with visible manganese and iron oxides contained 0.53% manganese and >10% iron.

## Outwash Creek South-Southwest

The Outwash Creek South-Southwest mineral occurrence is in an unnamed tributary of Outwash Creek within the Gates of the Arctic National Park (fig. 3). Two samples (4156, 4158) of quartz veins with visible galena and pyrite contained 25.39 and 3.30% lead, 0.07 and 0.17% zinc, 0.08 and 0.09% copper, respectively, and sample 4156 contains 10.27 oz/t silver. A sample (4157) of quartz rubblecrop with visible galena contained 7.26% lead, 9.31% zinc, 0.08% copper, and 3.72 oz/t silver. A sample (4159) of silicified shale float with visible galena and sphalerite contained 1.64% lead, 4.96% zinc, 163 ppm copper, and 1.18% manganese.

## Outwash Creek Southwest

The Outwash Creek Southwest occurrence is at the headwaters of an unnamed tributary of Outwash Creek within the Gates of the Arctic National Park (fig. 3). Two samples (4153-54)

of conglomerate and sandstone rubblecrop with visible galena and sphalerite contained 0.1 and 0.62% lead, 2.51 and 2.79% zinc, 711 and 4,370 ppm manganese, and 729 and 1,161 ppm nickel, respectively.

## Outwash Creek West

The Outwash Creek West occurrence is located at the headwaters of an unnamed tributary of Outwash Creek within the Gates of the Arctic National Park (fig. 3). A sample (4138) of a quartz vein with visible sphalerite, galena, and pyrite contained 1.95% lead, 7.05% zinc, and 0.16% copper. Four samples (4135-37, 4139) of quartz float in the area contained 0.26 - 8.93% lead, 2.67 - 24.04% zinc, and 133 - 2,303 ppm copper. Sample 4139 contained 4.99 oz/t silver.

## Story Creek

The Story Creek mineral occurrence is at the headwaters of a southeastern tributary of Story Creek (fig. 2). Detailed site-specific work on the occurrence included geologic mapping, soil and rock sampling, and bulk sampling.

The occurrence consists of a N65° E trending sulfide-bearing zone up to 270 feet wide that extends for at least 2,800 feet along strike. The zone is hosted within sandstone and siltstone of the upper Devonian-lower Mississippian Stuver member of the Kanayut Conglomerate. East-west trending thrust faults occur within the Stuver and the entire member has been thrust north over the highly deformed Mississippian Kayak Shale. Sulfides, found in float and rubblecrop within the zone, consist of sphalerite and galena mixed with quartz as matrix and fragments in siltstone breccia, as massive banded layers, and in quartz veinlets up to 0.5 inch thick. Numerous barren quartz veinlets also occur within the Stuver member. Pieces of massive barite and weathered sphalerite, which is locally coated with hydrozincite, can be occasionally found in association with sulfides. The sulfide-bearing rocks appear to terminate against or are covered by a thrust-fault on the south side of the mineralized zone. Fold axes within the Stuver member parallel the trend of the sulfide-bearing zone.

A total of 4,700 feet of gridline was surveyed at Story Creek and used as a base for geochemical sampling and geologic mapping. Soil and rock samples were collected at 100 foot intervals along the gridline and all known mineralized outcrops were sampled. The sample locations are shown on figure 6. A sample of sulfide-rich float (5294) contained up to 18.94% zinc, 30.03% lead, and 20.29 oz/t silver. Continuous chip samples (5426-30) taken across 28 feet of rubblecrop contained 14.19% zinc, 3.94% lead, and 4.63 oz/t silver. The samples came from a portion of a larger zone with an apparent width of 100 feet. Soil samples collected along the gridline contained up to 0.34% lead, 0.24% zinc (5526), and 0.15% barium (5412).

The geology of the occurrence was mapped at a scale of 1:2,400 by a graduate student at the University of Alaska, Fairbanks. The results of that work will be eventually published as a thesis (376).

A high-grade bulk sample collected from this mineral occurrence contained 5.37% zinc, 2.11% lead, and 0.014% copper (Table 1).

## Vidlee

The Vidlee mineral occurrence is near the headwaters of Itilyiargiok Creek within the Gates of the Arctic National Park (fig. 3) was subsequently identified by a USGS geochemical sampling program (133). Three areas of mineralization were identified by the Bureau in 1991. Five samples (4130-34) of sandstone and quartz taken from the Northern Zone contained <2 ppm - 3.47% lead, 21 - 75 ppm zinc, and <0.5 - 32 ppm silver. The central zone had sandstone with quartz bedrock (sample 4152) which contained 0.92% lead, 10.44% zinc, and 32.5 ppm silver while a sample (4151) of float contained 1.4% lead, 12.14% zinc, and 46.6 ppm silver. The southern zone had 6 samples (4145-50) taken of sandstone bedrock with quartz containing 0.18 - 56.93% lead, 0.09 - 9.8% zinc, and 3.7 ppm - 37.54 oz/t silver.

## Other anomalous mineral concentrations

The Bureau identified anomalously high mineral concentrations in several drainages, but were unable to locate any in-place mineralization. These drainages include the Rampart - Wager creek area containing elevated barite, manganese, chromite, titanium, and strontium concentrations. Samples from the Cutaway Creek and Twistem Creek contained elevated levels of barite. The Outwash Creek - Kurupa River area contained anomalously high barite, manganese, nickel, cadmium, arsenic, and titanium. The Koiyaktot Mountain area contained elevated concentrations of cadmium and antimony.

## CONCLUSIONS

The 1991 field reconnaissance part of the CMD study identified, located, and sampled nineteen mineral occurrences containing elevated levels of lead, zinc, copper, silver, manganese, and/or nickel. A site specific part of the study conducted detailed examinations on seven of the previously identified occurrences. Anomalously high antimony, arsenic, barite, cadmium, chromite, manganese, nickel, strontium, and titanium concentrations were also found that may indicate additional mineral occurrences in the Cutaway Creek, Koiyaktot Mountain, Kurupa River, Mt. Bupto, Outwash Creek Rampart Creek, Twistem Creek, and the Wager Creek areas.

TABLE 3. - 1990 Sample Analysis Detection Limits

| Element | Lower limit (ppm) | Upper limit (ppm) |
|---|---|---|
| ICP-Atomic Emission Spectroscopy | | |
| Ag | 0.2 | 50 |
| Al | 0.02% | 10.00% |
| As | 5 | 2,000 |
| Ba | 1 | 2,000 |
| Bi | 5 | 2,000 |
| Ca | 0.05% | 10.00% |
| Cd | 1 | 2,000 |
| Co | 1 | 20,000 |
| Cr | 1 | 20,000 |
| Cu | 1 | 20,000 |
| Fe | 0.01% | 10.00% |
| Ga | 2 | 2,000 |
| K | 0.05% | 10.00% |
| La | 1 | 2,000 |
| Li | 1 | 2,000 |
| Mg | 0.05% | 10.00% |
| Mn | 0.01% | 10.00% |
| Mo | 1 | 20,000 |
| Na | 0.05% | 10.00% |
| Nb | 1 | 2,000 |
| Ni | 1 | 20,000 |
| Pb | 0.0002% | 1.0% |
| Sb | 5 | 2,000 |
| Sn | 20 | 2,000 |
| Sr | 1 | 2,000 |
| Ta | 1 | 2,000 |
| Te | 10 | 2,000 |
| Ti | 0.05% | 10.00% |
| V | 1 | 2,000 |
| W | 10 | 2,000 |
| Y | 1 | 2,000 |
| Zn | 0.0002% | 2.0% |
| Zr | 1 | 2,000 |
| Quantitative Analysis | | |
| Pb | 0.01% | 10.00% |
| Zn | 0.01% | 4.00% |
| Fire Assay | | |
| Ag | 0.02 oz/t | Not reported |
| PGM-Nickel Sulfide Fire Assay/INAA | | |
| Au | 1 ppb | 10,000 ppb |
| Pt | 20 ppb | 10,000 ppb |
| Pb | 20 ppb | 10,000 ppb |
| Ir | 1 ppb | 10,000 ppb |
| Os | 10 ppb | 10,000 ppb |
| Ru | 50 ppb | 10,000 ppb |
| Rh | 5 ppb | 10,000 ppb |

TABLE 4. - 1991 Sample Analysis Lower Detection Limits

| Quantitative Analysis - FA | | | |
|---|---|---|---|
| Ba... | 0.01% | Mn... | 0.01% |
| Cr... | 0.01% | Pb... | 0.01% |
| Cu... | 0.01% | Zn... | 0.01% |
| **Fire Assay - DCP** | | | |
| Ag... | 0.02 oz/t | Pd... | 1 ppb |
| Au... | 1 ppb | Pt... | 1 ppb |
| **Atomic Emission Spectroscopy - ICP** | | | |
| Ag... | 0.5 ppm | Mo... | 1 ppm |
| Al... | 0.01% | Na... | 0.01% |
| As... | 5 ppm | Nb... | 5 ppm |
| Ba... | 5 ppm | Ni... | 1 ppm |
| Bi... | 5 ppm | Pb... | 2 ppm |
| Ca... | 0.01% | Sb... | 5 ppm |
| Cd... | 2 ppm | Sn... | 20 ppm |
| Co... | 1 ppm | Sr... | 1 ppm |
| Cr... | 2 ppm | Ta... | 5 ppm |
| Cu... | 1 ppm | Te... | 25 ppm |
| Fe... | 0.01% | Ti... | 0.01% |
| Ga... | 10 ppm | V.... | 2 ppm |
| K.... | 0.01% | W.... | 20 ppm |
| La... | 5 ppm | Y.... | 5 ppm |
| Li... | 2 ppm | Zn... | 2 ppm |
| Mg... | 0.01% | Zr... | 5 ppm |
| Mn... | 5 ppm | | |

TABLE 4. - 1991 Sample Analysis Lower Detection Limits -- Continued

| Inst. Neutron Activation | | | |
|---|---|---|---|
| Ce... | 1 ppm | Nd... | 1 ppm |
| Dy... | 0.1 ppm | Pr... | 1 ppm |
| Er... | 1 ppm | Sm... | 0.01 ppm |
| Eu... | 0.1 ppm | Tb... | 0.1 ppm |
| Gd... | 1 ppm | Th... | 0.1 ppm |
| Ho... | 0.1 ppm | Tm... | 1 ppm |
| La... | 0.1 ppm | U... | 0.1 ppm |
| Lu... | 0.01 ppm | Yb... | 0.1 ppm |
| **DC Plasma Emission** | | | |
| Ge... | 10 ppm | | |

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APPENDIX. 1990–1991 CMD Sample Analytical Results

| Sample no. | Map no. | Year | Property name | Location name | Mining district | Basic rock type | Sample site | Sample type | Quad name | Quad. no. | TWP | RNG | Section | Quarter section | Meridian | Cu % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4001 | HP54 | 1990 | | Safari Creek | Colville | Sandstone | Rubblecrop | Grab | Howard Pass | B–3 | 12S | 25W | 13 | SW | Umiat | |
| 4002 | HP76 | 1990 | | Isikut Mtn | Colville | Alluvium | Stream | Placer | Howard Pass | A–2 | 33N | 09E | 25 | SE | Kateel River | |
| 4003 | HP75 | 1990 | | Isikut Mtn | Colville | Alluvium | Stream | Placer | Howard Pass | A–2 | 33N | 09E | 25 | SE | Kateel River | |
| 4004 | HP74 | 1990 | | Kivliktort Mtn | Colville | Alluvium | Stream | Placer | Howard Pass | B–2 | 34N | 10E | 31 | NE | Kateel River | |
| 4005 | HP72 | 1990 | Kivliktort Mtn West | Kivliktort Mtn | Colville | Chert | Rubblecrop | Grab | Howard Pass | B–2 | 34N | 10E | 30 | SE | Kateel River | |
| 4006 | HP71 | 1990 | Kivliktort Mtn West | Kivliktort Mtn | Colville | Shale | Outcrop | Random chip | Howard Pass | B–2 | 34N | 10E | 30 | SE | Kateel River | |
| 4007 | HP77 | 1990 | Kivliktort Mtn East | Kivliktort Mtn | Colville | Conglomerate | Rubblecrop | Grab | Howard Pass | B–1 | 33N | 10E | 13 | SW | Kateel River | |
| 4008 | HP80 | 1990 | Kivliktort Mtn East | Kivliktort Mtn | Colville | Alluvium | Stream | Placer | Howard Pass | B–1 | 33N | 11E | 18 | NE | Kateel River | |
| 4009 | HP86 | 1990 | Koiyaktot Mtn West | Koiyaktot Mtn | Colville | Massive sulfides | Rubblecrop | Grab | Howard Pass | A–1 | 33N | 11E | 34 | NW | Kateel River | |
| 4010 | HP85 | 1990 | Koiyaktot Mtn West | Koiyaktot Mtn | Colville | Massive sulfides | Outcrop | Select | Howard Pass | A–1 | 33N | 11E | 34 | NW | Kateel River | |
| 4011 | HP29 | 1990 | Drenchwater Creek | Drenchwater Creek | Colville | Alluvium | Stream | Placer | Howard Pass | C–5 | 10S | 29W | 16 | NW | Umiat | |
| 4012 | HP73 | 1990 | Kivliktort Mtn West | Kivliktort Mtn | Colville | Massive sulfides | Rubblecrop | Grab | Howard Pass | B–2 | 34N | 10E | 29 | NW | Kateel River | |
| 4013 | HP73 | 1990 | Kivliktort Mtn West | Kivliktort Mtn | Colville | Massive sulfides | Rubblecrop | Select | Howard Pass | B–2 | 34N | 10E | 29 | NW | Kateel River | |
| 4014 | HP73 | 1990 | Kivliktort Mtn West | Kivliktort Mtn | Colville | Massive sulfides | Float | Grab | Howard Pass | B–2 | 34N | 10E | 29 | NW | Kateel River | |
| 4015 | HP79 | 1990 | Kivliktort Mtn East | Kivliktort Mtn | Colville | Massive sulfides | Float | Grab | Howard Pass | B–1 | 33N | 10E | 13 | SE | Kateel River | |
| 4016 | KR2 | 1990 | | Otuk Creek | Colville | Shale | Outcrop | Random chip | Killik River | B–5 | 11S | 16W | 20 | NW | Umiat | |
| 4017 | HP21 | 1991 | Rampart Ck West | Rampart Creek | Colville | Mafic intrusive | Rubblecrop | Grab | Howard Pass | C–5 | 10S | 30W | 16 | NE | Umiat | |
| 4018 | HP22 | 1991 | Rampart Ck West | Rampart Creek | Colville | Chert | Rubblecrop | Select | Howard Pass | C–5 | 10S | 30W | 16 | NE | Umiat | |
| 4019 | HP20 | 1991 | Rampart Ck West | Rampart Creek | Colville | Mafic intrusive | Rubblecrop | Select | Howard Pass | C–5 | 10S | 30W | 16 | NW | Umiat | |
| 4020 | HP55 | 1990 | | Safari Creek | Colville | Shale | Rubblecrop | Random chip | Howard Pass | B–3 | 12S | 25W | 24 | NW | Umiat | |
| 4021 | HP46 | 1990 | | Lisburne Ridge | Colville | Limestone | Float | Grab | Howard Pass | C–1 | 10S | 20W | 3 | NE | Umiat | |
| 4022 | HP53 | 1990 | | Safari Creek | Colville | Chert | Outcrop | Channel | Howard Pass | B–3 | 12S | 25W | 13 | SE | Umiat | |
| 4023 | KR4 | 1990 | | Otuk Creek | Colville | Alluvium | Stream | Placer | Killik River | B–5 | 34N | 14E | 30 | NE | Kateel River | |
| 4024 | KR5 | 1990 | | Otuk Creek | Colville | Alluvium | Stream | Placer | Killik River | B–5 | 12S | 16W | 30 | SE | Umiat | |
| 4025 | HP83 | 1990 | Koiyaktot Mtn West | Koiyaktot Mtn | Colville | Massive sulfides | Rubblecrop | Select | Howard Pass | A–1 | 33N | 11E | 27 | SW | Kateel River | |
| 4026 | HP84 | 1990 | Koiyaktot Mtn West | Koiyaktot Mtn | Colville | Massive sulfides | Rubblecrop | Select | Howard Pass | A–1 | 34N | 11E | 34 | NE | Kateel River | |
| 4027 | HP19 | 1991 | Rampart Ck West | Rampart Creek | Colville | Chert | Rubblecrop | Grab | Howard Pass | C–5 | 10S | 30W | 9 | SW | Umiat | |
| 4028 | HP18 | 1991 | | Rampart Creek | Colville | Chert | Outcrop | Chip channel | Howard Pass | C–5 | 10S | 30W | 9 | SE | Umiat | |
| 4029 | HP12 | 1991 | Rampart Ck East | Rampart Creek | Colville | Chert | Outcrop | Chip channel | Howard Pass | C–5 | 09S | 30W | 35 | NE | Umiat | |
| 4030 | HP11 | 1991 | Rampart Ck East | Rampart Creek | Colville | Chert | Outcrop | Grab | Howard Pass | C–5 | 30N | 09E | 35 | NE | Umiat | |
| 4031 | HP15 | 1991 | Rampart Ck East | Rampart Creek | Colville | Chert | Outcrop | Grab | Howard Pass | C–5 | 09S | 30W | 35 | SE | Umiat | |
| 4032 | HP16 | 1991 | Rampart Ck East | Rampart Creek | Colville | Chert | Outcrop | Select | Howard Pass | C–5 | 09S | 30W | 35 | SE | Umiat | |
| 4033 | HP13 | 1991 | Rampart Ck East | Rampart Creek | Colville | Chert | Outcrop | Select | Howard Pass | C–5 | 09S | 30W | 35 | SE | Umiat | |
| 4034 | HP14 | 1991 | Rampart Ck East | Rampart Creek | Colville | Quartz | Rubblecrop | Grab | Howard Pass | C–5 | 09S | 30W | 35 | SE | Umiat | |
| 4035 | HP10 | 1991 | | Rolling Pin Creek | Colville | Chert | Outcrop | Grab | Howard Pass | C–5 | 09S | 29W | 26 | SE | Umiat | |
| 4036 | HP52 | 1991 | | Mt Bupto | Colville | Shale | Outcrop | Grab | Howard Pass | B–3 | 11S | 24W | 16 | NE | Umiat | |
| 4037 | HP42 | 1991 | | Kiligwa River | Colville | Chert | Outcrop | Grab | Howard Pass | C–5 | 10S | 28W | 32 | NE | Umiat | |
| 4038 | HP37 | 1991 | | Kiligwa River | Colville | Chert | Outcrop | Grab | Howard Pass | C–5 | 10S | 28W | 20 | SW | Umiat | |
| 4039 | HP34 | 1991 | Wager Ck Barite | Wager Creek | Colville | Felsic intrusive | Float | Grab | Howard Pass | C–5 | 10S | 29W | 27 | NW | Umiat | |
| 4040 | HP34 | 1991 | Wager Ck Barite | Wager Creek | Colville | Chert | Rubblecrop | Grab | Howard Pass | C–5 | 10S | 29W | 27 | NW | Umiat | |
| 4041 | HP33 | 1991 | Wager Ck Barite | Wager Creek | Colville | Chert | Outcrop | Grab | Howard Pass | C–5 | 10S | 29W | 27 | NW | Umiat | |
| 4042 | HP35 | 1991 | | Wager Creek | Colville | Arkose – tuff | Outcrop | Grab | Howard Pass | C–5 | 10S | 29W | 23 | NW | Umiat | |
| 4043 | HP32 | 1991 | Wager Ck West | Wager Creek | Colville | Mafic intrusive | Outcrop | Grab | Howard Pass | C–5 | 10S | 29W | 14 | SW | Umiat | |
| 4044 | HP59 | 1991 | | Safari Creek | Colville | Shale | Float | Grab | Howard Pass | B–4 | 12S | 26W | 26 | NE | Umiat | |
| 4045 | HP60 | 1991 | | Safari Creek | Colville | Shale | Float | Grab | Howard Pass | B–4 | 12S | 26W | 26 | SE | Umiat | |
| 4046 | HP17 | 1991 | | Rampart Creek | Colville | Chert | Rubblecrop | Select | Howard Pass | C–5 | 10S | 30W | 1 | NW | Umiat | |
| 4047 | HP27 | 1991 | Rolling Pin Creek | Rolling Pin Creek | Colville | Chert | Float | Grab | Howard Pass | C–5 | 10S | 29W | 18 | SW | Umiat | |
| 4048 | HP27 | 1991 | Rolling Pin Creek | Rolling Pin Creek | Colville | Chert | Outcrop | Contin chip | Howard Pass | C–5 | 10S | 29W | 18 | SW | Umiat | |
| 4049 | HP28 | 1991 | Rolling Pin Creek | Rolling Pin Creek | Colville | Chert | Outcrop | Random chip | Howard Pass | C–5 | 10S | 29W | 18 | NE | Umiat | |
| 4051 | HP51 | 1991 | | Mt Bupto | Colville | Dolomite | Outcrop | Select | Howard Pass | C–3 | 11S | 24W | 4 | SE | Umiat | |
| 4052 | HP50 | 1991 | | Mt Bupto | Colville | Dolomite | Outcrop | Random chip | Howard Pass | C–3 | 11S | 29W | 4 | NE | Umiat | |
| 4053 | HP49 | 1991 | | Mt Bupto | Colville | Dolomite | Rubblecrop | Select | Howard Pass | C–3 | 11S | 29W | 4 | NE | Umiat | |
| 4054 | HP48 | 1991 | Mt Bupto North | Mt Bupto | Colville | Mafic intrusive | Rubblecrop | Select | Howard Pass | C–3 | 10S | 24W | 33 | SE | Umiat | |
| 4055 | HP47 | 1991 | Mt Bupto North | Mt Bupto | Colville | Mafic intrusive | Outcrop | Random chip | Howard Pass | C–3 | 10S | 24W | 33 | SE | Umiat | |
| 4056 | HP26 | 1991 | Rolling Pin Creek | Rolling Pin Creek | Colville | Chert | Outcrop | Random chip | Howard Pass | C–5 | 10S | 29W | 18 | NE | Umiat | |
| 4057 | HP8 | 1991 | | Jubilee Ck trib | Colville | Chert | Float | Grab | Howard Pass | C–5 | 09S | 30W | 2 | NE | Umiat | |
| 4058 | HP9 | 1991 | | Jubilee Ck trib | Colville | Chert | Float | Grab | Howard Pass | C–5 | 09S | 30W | 2 | NE | Umiat | |
| 4059 | HP90 | 1991 | Koiyaktot Mtn East | Koiyaktot Mtn | Colville | Massive sulfides | Rubblecrop | Grab | Howard Pass | A–1 | 32N | 12E | 9 | NW | Kateel River | |

APPENDIX. 1990–1991 CMD Sample Analytical Results

| Sample no. | Map no. | Year | Property name | Location name | Mining district | Basic rock type | Sample site | Sample type | Quad name | Quad. no. | TWP | RNG | Section | Quarter section | Meridian | Cu % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4060 | HP90 | 1991 | Kolyaktot Mtn East | Kolyaktot Mtn | Colville | Massive sulfides | Rubblecrop | Select | Howard Pass | A–1 | 32N | 12E | 9 | NW | Kateel River | |
| 4061 | HP90 | 1991 | Kolyaktot Mtn East | Kolyaktot Mtn | Colville | Massive sulfides | Rubblecrop | Select | Howard Pass | A–1 | 32N | 12E | 9 | NW | Kateel River | |
| 4062 | HP90 | 1991 | Kolyaktot Mtn East | Kolyaktot Mtn | Colville | Massive sulfides | Rubblecrop | Select | Howard Pass | A–1 | 32N | 12E | 9 | NW | Kateel River | |
| 4063 | HP83 | 1991 | | Kolyaktot Mtn trib | Colville | Conglomerate | Float | Grab | Howard Pass | A–1 | 33N | 12E | 31 | SW | Kateel River | |
| 4064 | HP25 | 1991 | | Rampart Creek | Colville | Chert | Rubblecrop | Grab | Howard Pass | C–5 | 10S | 30W | 28 | SE | Umiat | |
| 4065 | HP24 | 1991 | | Rampart Creek | Colville | Chert | Outcrop | Random chip | Howard Pass | C–5 | 10S | 30W | 27 | NW | Umiat | |
| 4066 | HP58 | 1991 | | Safari Creek | Colville | Shale | Outcrop | Grab | Howard Pass | B–4 | 12S | 26W | 26 | NE | Umiat | |
| 4067 | KR79 | 1991 | | Kugukpak Creek | Colville | Shale | Float | Grab | Killik River | A–1 | 32N | 23E | 10 | SE | Kateel River | |
| 4068 | KR80 | 1991 | | Kugukpak Creek | Colville | Sandstone | Float | Grab | Killik River | A–1 | 32N | 23E | 14 | SW | Kateel River | |
| 4069 | KR82 | 1991 | | Suluak Ck trib | Colville | Sandstone | Float | Grab | Killik River | A–1 | 32N | 23E | 26 | SE | Kateel River | |
| 4070 | KR81 | 1991 | | Suluak Ck trib | Colville | Shale | Float | Grab | Killik River | A–1 | 32N | 23E | 26 | SE | Kateel River | |
| 4071 | KR36 | 1991 | Kady | Outwash Ck trib | Colville | Massive sulfides | Rubblecrop | Select | Killik River | A–4 | 32N | 17E | 3 | SW | Kateel River | |
| 4072 | KR36 | 1991 | Kady | Outwash Ck trib | Colville | Massive sulfides | Rubblecrop | Select | Killik River | A–4 | 32N | 17E | 3 | SW | Kateel River | |
| 4073 | KR41 | 1991 | Kady | Outwash Ck trib | Colville | Massive sulfides | Rubblecrop | Select | Killik River | A–4 | 32N | 17E | 3 | SW | Kateel River | |
| 4074 | KR41 | 1991 | Kady | Outwash Ck trib | Colville | Massive sulfides | Outcrop | Select | Killik River | A–4 | 32N | 17E | 3 | SW | Kateel River | |
| 4075 | KR41 | 1991 | Kady | Outwash Ck trib | Colville | Massive sulfides | Outcrop | Select | Killik River | A–4 | 32N | 17E | 4 | NE | Kateel River | 0.07 |
| 4076 | KR41 | 1991 | Kady | Outwash Ck trib | Colville | Massive sulfides | Rubblecrop | Grab | Killik River | A–4 | 32N | 17E | 4 | NE | Kateel River | 0.05 |
| 4077 | KR56 | 1991 | | Outwash Ck trib | Colville | Shale | Outcrop | Select | Killik River | B–4 | 33N | 16E | 7 | SW | Kateel River | <0.01 |
| 4078 | KR57 | 1991 | | Outwash Ck trib | Colville | Shale | Outcrop | Select | Killik River | B–4 | 33N | 16E | 7 | SW | Kateel River | <0.01 |
| 4079 | KR58 | 1991 | | Outwash Ck trib | Colville | Quartz | Float | Grab | Killik River | B–4 | 33N | 16E | 2 | SW | Kateel River | |
| 4080 | KR2 | 1991 | Ivotuk Hills | Otuk Creek | Colville | Limestone | Outcrop | Random chip | Killik River | B–5 | 11S | 16W | 20 | NW | Umiat | |
| 4081 | HP43 | 1991 | | Killgwa River | Colville | Chert | Rubblecrop | Grab | Howard Pass | C–4 | 10S | 28W | 14 | SE | Umiat | |
| 4082 | HP44 | 1991 | | Killgwa River | Colville | Chert | Rubblecrop | Grab | Howard Pass | C–4 | 10S | 28W | 14 | SE | Umiat | |
| 4083 | HP45 | 1991 | | Killgwa River | Colville | Chert | Outcrop | Contin chip | Howard Pass | C–4 | 10S | 28W | 11 | NE | Umiat | |
| 4084 | HP36 | 1991 | | Wager Creek | Colville | Andesite | Rubblecrop | Grab | Howard Pass | C–5 | 10S | 29W | 24 | NE | Umiat | |
| 4085 | HP61 | 1991 | | Safari Creek | Colville | Shale | Outcrop | Select | Howard Pass | B–4 | 12S | 26W | 26 | SE | Umiat | |
| 4086 | HP56 | 1991 | | Story Creek | Colville | Chert | Outcrop | Random chip | Howard Pass | B–4 | 12S | 26W | 23 | NW | Umiat | |
| 4087 | HP63 | 1991 | Middle Fork | Safari Creek | Colville | Chert | Float | Grab | Howard Pass | B–3 | 34N | 05E | 16 | NE | Kateel River | |
| 4088 | HP64 | 1991 | Middle Fork | Safari Creek | Colville | Shale | Outcrop | Contin chip | Howard Pass | B–3 | 34N | 05E | 16 | NE | Kateel River | |
| 4089 | HP62 | 1991 | Middle Fork | Safari Creek | Colville | Chert | Float | Grab | Howard Pass | B–3 | 34N | 05E | 16 | SW | Kateel River | |
| 4090 | HP23 | 1991 | Rampart Ck West | Rampart Creek | Colville | Mafic intrusive | Rubblecrop | Grab | Howard Pass | C–5 | 10S | 30W | 16 | NE | Umiat | |
| 4091 | HP23 | 1991 | Rampart Ck West | Rampart Creek | Colville | Mafic intrusive | Rubblecrop | Grab | Howard Pass | C–5 | 10S | 30W | 16 | NE | Umiat | |
| 4092 | HP23 | 1991 | Rampart Ck West | Rampart Creek | Colville | Mafic intrusive | Rubblecrop | Grab | Howard Pass | C–5 | 10S | 30W | 16 | NC | Umiat | |
| 4093 | HP20 | 1991 | Rampart Ck West | Rampart Creek | Colville | Mafic intrusive | Rubblecrop | Grab | Howard Pass | C–5 | 10S | 30W | 16 | NW | Umiat | |
| 4094 | HP19 | 1991 | Rampart Ck West | Rampart Creek | Colville | Mafic intrusive | Rubblecrop | Grab | Howard Pass | C–5 | 10S | 30W | 16 | NW | Umiat | |
| 4095 | HP7 | 1991 | | Jubilee Creek | Colville | Chert | Outcrop | Grab | Howard Pass | C–5 | 08S | 29W | 18 | SE | Umiat | |
| 4096 | HP3 | 1991 | | Liberator Ridge | Colville | Sandstone | Rubblecrop | Grab | Howard Pass | D–4 | 07S | 27W | 17 | SE | Umiat | |
| 4097 | HP3 | 1991 | | Liberator Ridge | Colville | Conglomerate | Outcrop | Grab | Howard Pass | D–4 | 07S | 27W | 17 | SE | Umiat | |
| 4098 | HP6 | 1991 | | Stan Ridge | Colville | Mafic intrusive | Outcrop | Grab | Howard Pass | C–4 | 08S | 27W | 36 | NW | Umiat | |
| 4099 | HP30 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Mafic intrusive | Rubblecrop | Grab | Howard Pass | C–5 | 10S | 29W | 16 | SC | Umiat | |
| 4100 | HP65 | 1991 | | Memorial Creek | Colville | Sandstone | Float | Grab | Howard Pass | B–3 | 34N | 05E | 13 | SE | Kateel River | |
| 4101 | HP66 | 1991 | | Memorial Creek | Colville | Sandstone | Float | Select | Howard Pass | B–3 | 34N | 06E | 18 | SW | Kateel River | |
| 4102 | HP67 | 1991 | | Memorial Creek | Colville | Sandstone | Float | Select | Howard Pass | B–3 | 34N | 06E | 18 | SW | Kateel River | |
| 4103 | HP68 | 1991 | | Ipnavik Creek | Colville | Sandstone | Float | Grab | Howard Pass | B–3 | 34N | 05E | 24 | SE | Kateel River | |
| 4104 | HP1 | 1991 | | Etigonik Mtn | Colville | Alluvium | Stream | Placer | Howard Pass | D–4 | 05S | 26W | 32 | SW | Umiat | |
| 4105 | HP1 | 1991 | | Etigonik Mtn | Colville | Alluvium | Stream | Placer | Howard Pass | D–4 | 05S | 26W | 32 | SW | Umiat | |
| 4106 | HP2 | 1991 | | Killgwa River | Colville | Alluvium | Stream | Placer | Howard Pass | D–5 | 06S | 28W | 15 | SW | Umiat | |
| 4107 | HP5 | 1991 | | Anuk Creek | Colville | Alluvium | Stream | Placer | Howard Pass | D–4 | 08S | 26W | 8 | SW | Umiat | |
| 4108 | HP5 | 1991 | | Anuk Creek | Colville | Alluvium | Stream | Pan Con | Howard Pass | D–4 | 08S | 26W | 8 | SW | Umiat | |
| 4109 | HP4 | 1991 | | Anuk Creek | Colville | Sandstone | Float | Grab | Howard Pass | D–4 | 08S | 26W | 8 | SW | Umiat | |
| 4110 | HP4 | 1991 | | Anuk Creek | Colville | Conglomerate | Float | Grab | Howard Pass | D–4 | 08S | 26W | 8 | SW | Umiat | |
| 4111 | HP4 | 1991 | | Anuk Creek | Colville | Sandstone | Float | Grab | Howard Pass | D–4 | 08S | 26W | 8 | SW | Umiat | |
| 4112 | KR6 | 1991 | | Nigu River | Colville | Conglomerate | Float | Select | Killik River | A–5 | 33N | 13E | 29 | NW | Kateel River | |
| 4113 | KR7 | 1991 | | Nigu River | Colville | Sandstone | Float | Select | Killik River | A–5 | 33N | 13E | 29 | NE | Kateel River | |
| 4114 | KR8 | 1991 | | Nigu River | Colville | Conglomerate | Float | Select | Killik River | A–5 | 32N | 13E | 2 | NW | Kateel River | |
| 4115 | HP89 | 1991 | Kolyaktot Mtn East | Kolyaktot Mtn | Colville | Sandstone | Float | Select | Howard Pass | A–1 | 32N | 12E | 9 | NW | Kateel River | |
| 4116 | HP90 | 1991 | Kolyaktot Mtn East | Kolyaktot Mtn | Colville | Massive sulfides | Rubblecrop | Select | Howard Pass | A–1 | 32N | 12E | 9 | NE | Kateel River | |
| 4117 | KR9 | 1991 | | Ivotuk Creek | Colville | Sandstone | Float | Grab | Killik River | A–5 | 33N | 14E | 4 | NW | Kateel River | |

APPENDIX. 1990–1991 CMD Sample Analytical Results

| Sample no. | Map no. | Year | Property name | Location name | Mining district | Basic rock type | Sample site | Sample type | Quad name | Quad. no. | TWP | RNG | Section | Quarter section | Meridian | Cu % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4118 | HP88 | 1991 | Kolyaktot Mtn East | Kolyaktot Mtn | Colville | Sandstone | Float | Grab | Howard Pass | A–1 | 32N | 12E | 9 | NW | Kateel River | |
| 4119 | HP82 | 1991 | Kolyaktot Mtn West | Kolyaktot Mtn | Colville | Sandstone | Outcrop | Grab | Howard Pass | A–1 | 33N | 11E | 27 | SE | Kateel River | |
| 4120 | HP82 | 1991 | Kolyaktot Mtn West | Kolyaktot Mtn | Colville | Sandstone | Outcrop | Grab | Howard Pass | A–1 | 33N | 11E | 27 | SE | Kateel River | |
| 4121 | HP39 | 1991 | | Wager Creek | Colville | Mafic intrusive | Float | Grab | Howard Pass | C–5 | 10S | 29W | 35 | NE | Umiat | |
| 4122 | HP39 | 1991 | | Wager Creek | Colville | Chert | Rubblecrop | Grab | Howard Pass | C–5 | 10S | 29W | 35 | NE | Umiat | |
| 4123 | HP40 | 1991 | | Twistem Creek | Colville | Chert | Outcrop | Select | Howard Pass | C–5 | 11S | 28W | 6 | SW | Umiat | |
| 4124 | HP38 | 1991 | | Twistem Creek | Colville | Chert | Outcrop | Select | Howard Pass | C–5 | 10S | 29W | 36 | SE | Umiat | |
| 4125 | HP41 | 1991 | Twistem Ck Barite | Twistem Creek | Colville | Barite | Outcrop | Select | Howard Pass | C–5 | 10S | 28W | 31 | SW | Umiat | |
| 4126 | KR73 | 1991 | | Suluak River trib | Colville | Conglomerate | Float | Grab | Killik River | A–2 | 33N | 22E | 35 | NE | Kateel River | |
| 4127 | KR78 | 1991 | | Suluak River trib | Colville | Sandstone | Float | Grab | Killik River | A–2 | 32N | 23E | 17 | NE | Kateel River | |
| 4128 | HP90 | 1991 | Kolyaktot Mtn East | Kolyaktot Mtn | Colville | Massive sulfides | Float | Grab | Howard Pass | A–1 | 32N | 12E | 9 | NE | Kateel River | |
| 4129 | HP90 | 1991 | Kolyaktot Mtn East | Kolyaktot Mtn | Colville | Massive sulfides | Float | Grab | Howard Pass | A–1 | 32N | 12E | 9 | NE | Kateel River | |
| 4130 | KR12 | 1991 | Vidlee | Itilylarglok Creek | Colville | Quartz | Float | Grab | Killik River | A–4 | 32N | 16E | 31 | NE | Kateel River | |
| 4131 | KR15 | 1991 | Vidlee | Itilylarglok Creek | Colville | Sandstone | Outcrop | Random chip | Killik River | A–4 | 32N | 16E | 30 | SE | Kateel River | |
| 4132 | KR15 | 1991 | Vidlee | Itilylarglok Creek | Colville | Quartz | Outcrop | Random chip | Killik River | A–4 | 32N | 16E | 30 | SE | Kateel River | |
| 4133 | KR14 | 1991 | Vidlee | Itilylarglok Creek | Colville | Sandstone | Outcrop | Random chip | Killik River | A–4 | 32N | 16E | 30 | SE | Kateel River | |
| 4134 | KR13 | 1991 | Vidlee | Itiliarglok Creek | Colville | Quartz | Outcrop | Random chip | Killik River | A–4 | 32N | 16E | 31 | NW | Kateel River | |
| 4135 | KR22 | 1991 | Outwash Ck West | Etivluk Creek | Colville | Quartz | Float | Grab | Killik River | A–4 | 32N | 16E | 17 | SW | Kateel River | |
| 4136 | KR21 | 1991 | Outwash Ck West | Etivluk Creek | Colville | Quartz | Float | Grab | Killik River | A–4 | 32N | 16E | 20 | NE | Kateel River | |
| 4137 | KR21 | 1991 | Outwash Ck West | Etivluk Creek | Colville | Quartz | Float | Grab | Killik River | A–4 | 32N | 16E | 17 | SW | Kateel River | |
| 4138 | KR21 | 1991 | Outwash Ck West | Etivluk Creek | Colville | Quartz | Outcrop | Random chip | Killik River | A–4 | 32N | 16E | 17 | SW | Kateel River | |
| 4139 | KR22 | 1991 | Outwash Ck West | Etivluk Creek | Colville | Quartz | Float | Grab | Killik River | A–4 | 32N | 16E | 17 | SW | Kateel River | |
| 4140 | KR40 | 1991 | Kady | Outwash Ck trib | Colville | Sandstone | Float | Grab | Killik River | A–4 | 32N | 17E | 4 | NE | Kateel River | <0.01 |
| 4141 | KR3 | 1991 | Cone Hill | Iteriak Creek | Colville | Mafic intrusive | Rubblecrop | Grab | Killik River | B–5 | 11S | 15W | 20 | NW | Umiat | |
| 4142 | KR72 | 1991 | | Suluak Ck trib | Colville | Conglomerate | Outcrop | Select | Killik River | A–2 | 33N | 22E | 35 | NW | Kateel River | |
| 4143 | KR71 | 1991 | | Suluak Ck trib | Colville | Conglomerate | Outcrop | Grab | Killik River | A–2 | 33N | 22E | 35 | NW | Kateel River | |
| 4144 | KR77 | 1991 | | Suluak Ck trib | Colville | Sandstone | Float | Select | Killik River | A–2 | 32N | 22E | 24 | NE | Kateel River | |
| 4145 | KR11 | 1991 | Vidlee | Itiliarglok Creek | Colville | Sandstone | Outcrop | Chip channel | Killik River | A–4 | 32N | 16E | 32 | SW | Kateel River | |
| 4146 | KR11 | 1991 | Vidlee | Itiliarglok Creek | Colville | Sandstone | Outcrop | Chip channel | Killik River | A–4 | 32N | 16E | 32 | SW | Kateel River | |
| 4147 | KR11 | 1991 | Vidlee | Itiliarglok Creek | Colville | Sandstone | Outcrop | Chip channel | Killik River | A–4 | 32N | 16E | 32 | SW | Kateel River | |
| 4148 | KR11 | 1991 | Vidlee | Itiliarglok Creek | Colville | Sandstone | Outcrop | Chip channel | Killik River | A–4 | 32N | 16E | 32 | SW | Kateel River | |
| 4149 | KR11 | 1991 | Vidlee | Itiliarglok Creek | Colville | Sandstone | Outcrop | Chip channel | Killik River | A–4 | 32N | 16E | 32 | SW | Kateel River | |
| 4150 | KR11 | 1991 | Vidlee | Itiliarglok Creek | Colville | Sandstone | Outcrop | Select | Killik River | A–4 | 32N | 16E | 32 | SW | Kateel River | |
| 4151 | KR16 | 1991 | Vidlee | Itiliarglok Creek | Colville | Sandstone | Rubblecrop | Select | Killik River | A–4 | 32N | 16E | 29 | SW | Kateel River | |
| 4152 | KR16 | 1991 | Vidlee | Itiliarglok Creek | Colville | Sandstone | Outcrop | Select | Killik River | A–4 | 32N | 16E | 29 | SW | Kateel River | |
| 4153 | KR17 | 1991 | Outwash Ck SW | Outwash Ck trib | Colville | Conglomerate | Rubblecrop | Select | Killik River | A–4 | 32N | 16E | 20 | SE | Kateel River | |
| 4154 | KR17 | 1991 | Outwash Ck SW | Outwash Ck trib | Colville | Sandstone | Rubblecrop | Select | Killik River | A–4 | 32N | 16E | 20 | SE | Kateel River | |
| 4155 | KR37 | 1991 | Kady | Outwash Ck trib | Colville | Sandstone | Outcrop | Chip channel | Killik River | A–4 | 32N | 17E | 4 | SE | Kateel River | 0.59 |
| 4156 | KR18 | 1991 | Outwash Ck SSW | Outwash Ck trib | Colville | Quartz/shale | Outcrop | Select | Killik River | A–4 | 32N | 16E | 28 | NW | Kateel River | 0.08 |
| 4157 | KR18 | 1991 | Outwash Ck SSW | Outwash Ck trib | Colville | Quartz | Rubblecrop | Select | Killik River | A–4 | 32N | 16E | 28 | NW | Kateel River | 0.08 |
| 4158 | KR18 | 1991 | Outwash Ck SSW | Outwash Ck trib | Colville | Quartz | Outcrop | Select | Killik River | A–4 | 32N | 16E | 28 | NW | Kateel River | 0.09 |
| 4159 | KR19 | 1991 | Outwash Ck SSW | Outwash Ck trib | Colville | Felsic intrusive | Float | Grab | Killik River | A–4 | 32N | 16E | 21 | SW | Kateel River | <0.01 |
| 4160 | KR20 | 1991 | | Outwash Ck trib | Colville | Conglomerate | Float | Grab | Killik River | A–4 | 32N | 16E | 16 | SE | Kateel River | <0.01 |
| 4161 | KR54 | 1991 | | Outwash Ck trib | Colville | Sandstone | Float | Grab | Killik River | A–4 | 33N | 17E | 28 | SW | Kateel River | 0.09 |
| 4162 | KR51 | 1991 | Outwash Ck North | Outwash Ck trib | Colville | Sandstone | Rubblecrop | Grab | Killik River | A–4 | 33N | 17E | 33 | NW | Kateel River | |
| 4163 | KR52 | 1991 | Outwash Ck North | Outwash Ck trib | Colville | Conglomerate | Float | Select | Killik River | A–4 | 33N | 17E | 33 | NW | Kateel River | 0.87 |
| 4164 | KR50 | 1991 | Outwash Ck North | Outwash Ck trib | Colville | Quartz/shale | Float | Grab | Killik River | A–4 | 33N | 17E | 33 | SW | Kateel River | |
| 4165 | KR52 | 1991 | Outwash Ck North | Outwash Ck trib | Colville | Quartz | Float | Grab | Killik River | A–4 | 33N | 17E | 33 | NW | Kateel River | <0.01 |
| 4166 | KR53 | 1991 | | Outwash Ck trib | Colville | Sandstone | Float | Grab | Killik River | A–4 | 33N | 17E | 28 | SW | Kateel River | 0.21 |
| 4167 | KR64 | 1991 | Karupa River SW | Karupa River trib | Colville | Sandstone | Outcrop | Rep chip | Killik River | A–3 | 33N | 18E | 28 | SW | Kateel River | 0.23 |
| 4168 | KR63 | 1991 | Karupa River SW | Karupa River trib | Colville | Sandstone | Outcrop | Rep chip | Killik River | A–3 | 33N | 18E | 28 | SW | Kateel River | 0.01 |
| 4169 | KR64 | 1991 | Karupa River SW | Karupa River trib | Colville | Sandstone | Outcrop | Rep chip | Killik River | A–3 | 33N | 18E | 28 | SW | Kateel River | 0.14 |
| 4170 | KR63 | 1991 | Karupa River SW | Karupa River trib | Colville | Quartz | Outcrop | Select | Killik River | A–3 | 33N | 18E | 28 | SW | Kateel River | 0.41 |
| 4171 | KR37 | 1991 | Kady | Outwash Ck trib | Colville | Sandstone | Outcrop | Chip channel | Killik River | A–4 | 32N | 17E | 4 | SE | Kateel River | 0.36 |
| 4172 | KR37 | 1991 | Kady | Outwash Ck trib | Colville | Sandstone | Outcrop | Chip channel | Killik River | A–4 | 32N | 17E | 4 | SE | Kateel River | 1.29 |
| 4173 | KR37 | 1991 | Kady | Outwash Ck trib | Colville | Massive sulfides | Outcrop | Select | Killik River | A–4 | 32N | 17E | 4 | SE | Kateel River | 3.64 |
| 4174 | KR35 | 1991 | Kady | Outwash Ck trib | Colville | Sandstone | Outcrop | Select | Killik River | A–4 | 32N | 17E | 4 | SE | Kateel River | 0.01 |
| 4175 | HP70 | 1991 | | Tukuto Creek | Colville | Shale | Float | Grab | Howard Pass | B–2 | 34N | 08E | 24 | SE | Kateel River | <0.01 |

APPENDIX. 1990–1991 CMD Sample Analytical Results

| Sample no. | Map no. | Year | Property name | Location name | Mining district | Basic rock type | Sample site | Sample type | Quad name | Quad. no. | TWP | RNG | Section | Quarter section | Meridian | Cu % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4176 | KR44 | 1991 | | Outwash Ck trib | Colville | Sandstone | Outcrop | Select | Killik River | A–4 | 32N | 17E | 3 | NE | Kateel River | <0.01 |
| 4177 | KR43 | 1991 | | Outwash Ck trib | Colville | Sandstone | Rubblecrop | Grab | Killik River | A–4 | 32N | 17E | 3 | NE | Kateel River | <0.01 |
| 4178 | KR24 | 1991 | Outwask Ck NE | Outwash Ck trib | Colville | Sandstone | Float | Grab | Killik River | A–4 | 32N | 16E | 11 | SE | Kateel River | <0.01 |
| 4179 | KR24 | 1991 | Outwash Ck NE | Outwash Ck trib | Colville | Sandstone | Outcrop | Select | Killik River | A–4 | 32N | 16E | 11 | SE | Kateel River | 0.13 |
| 4180 | HP69 | 1991 | | Ipnavik River | Colville | Sandstone | Rubblecrop | Grab | Howard Pass | B–3 | 34N | 07E | 29 | SW | Kateel River | |
| 4181 | KR34 | 1991 | Kady | Outwash Ck trib | Colville | Massive sulfides | Rubblecrop | Grab | Killik River | A–4 | 32N | 17E | 4 | SW | Kateel River | 0.53 |
| 4182 | KR34 | 1991 | Kady | Outwash Ck trib | Colville | Massive sulfides | Rubblecrop | Select | Killik River | A–4 | 32N | 17E | 4 | SW | Kateel River | <0.01 |
| 4183 | KR33 | 1991 | Kady | Outwash Ck trib | Colville | Massive sulfides | Rubblecrop | Select | Killik River | A–4 | 32N | 17E | 9 | NW | Kateel River | 10.91 |
| 4184 | KR23 | 1991 | | Outwash Ck trib | Colville | Quartz | Rubblecrop | Grab | Killik River | A–4 | 32N | 16E | 1 | SE | Kateel River | <0.01 |
| 4185 | KR68 | 1991 | | Karupa River trib | Colville | Sandstone | Rubblecrop | Select | Killik River | A–3 | 33N | 18E | 22 | NE | Kateel River | |
| 4186 | KR66 | 1991 | | Karupa River trib | Colville | Shale | Float | Grab | Killik River | A–3 | 33N | 18E | 33 | SE | Kateel River | 0.07 |
| 4187 | KR65 | 1991 | Karupa River SW | Karupa River trib | Colville | Shale | Float | Grab | Killik River | A–3 | 33N | 18E | 33 | NW | Kateel River | 0.15 |
| 4188 | KR49 | 1991 | | Outwash Creek | Colville | Quartz | Float | Grab | Killik River | A–4 | 33N | 17E | 33 | SE | Kateel River | <0.01 |
| 4189 | KR44 | 1991 | | Outwash Creek | Colville | Shale | Float | Grab | Killik River | A–4 | 32N | 17E | 3 | SE | Kateel River | |
| 4190 | KR58 | 1991 | | Karupa Hills | Colville | Chert | Rubblecrop | Select | Killik River | B–4 | 34N | 17E | 14 | NE | Kateel River | |
| 4191 | KR59 | 1991 | | Karupa Hills | Colville | Chert | Rubblecrop | Select | Killik River | B–4 | 34N | 17E | 11 | SE | Kateel River | |
| 4192 | KR75 | 1991 | | Togoyuk Ck trib | Colville | Conglomerate | Outcrop | Select | Killik River | A–2 | 32N | 21E | 13 | SE | Kateel River | |
| 4193 | KR29 | 1991 | | Kakivilak Creek | Colville | Quartz | Float | Grab | Killik River | A–4 | 32N | 17E | 33 | SW | Kateel River | |
| 4194 | KR28 | 1991 | Kakivilak Creek | Kakivilak Creek | Colville | Shale | Float | Grab | Killik River | A–4 | 32N | 17E | 28 | SE | Kateel River | 0.08 |
| 4195 | KR31 | 1991 | Kakivilak Ck North | Kakivilak Creek | Colville | Shale | Outcrop | Select | Killik River | A–4 | 32N | 17E | 22 | NW | Kateel River | 0.64 |
| 4196 | KR32 | 1991 | Kakivilak Ck North | Kakivilak Creek | Colville | Quartz | Outcrop | Select | Killik River | A–4 | 32N | 17E | 22 | NW | Kateel River | <0.01 |
| 4197 | KR32 | 1991 | Kakivilak Ck North | Kakivilak Creek | Colville | Quartz | Outcrop | Select | Killik River | A–4 | 32N | 17E | 22 | NW | Kateel River | <0.01 |
| 4198 | KR42 | 1991 | | Outwash Ck trib | Colville | Coal | Rubblecrop | Grab | Killik River | A–4 | 33N | 17E | 35 | SW | Kateel River | 0.27 |
| 4199 | KR42 | 1991 | | Outwash Ck trib | Colville | Sandstone | Rubblecrop | Grab | Killik River | A–4 | 33N | 17E | 35 | SW | Kateel River | <0.01 |
| 4200 | KR64 | 1991 | Karupa River SW | Karupa River trib | Colville | Sandstone | Outcrop | Select | Killik River | A–3 | 34N | 18E | 28 | SW | Kateel River | 0.56 |
| 4201 | KR25 | 1991 | Outwash Ck NE | Outwash Ck trib | Colville | Sandstone | Outcrop | Select | Killik River | A–4 | 32N | 16E | 11 | SE | Kateel River | 0.09 |
| 4202 | KR26 | 1991 | Outwash Ck South | Outwash Ck trib | Colville | Sandstone | Rubblecrop | Grab | Killik River | A–4 | 32N | 17E | 18 | SW | Kateel River | <0.01 |
| 4203 | KR27 | 1991 | Outwash Ck South | Outwash Ck trib | Colville | Sandstone | Rubblecrop | Select | Killik River | A–4 | 32N | 17E | 18 | SW | Kateel River | <0.01 |
| 4204 | KR46 | 1991 | | Outwash Creek | Colville | Shale | Rubblecrop | Grab | Killik River | A–4 | 32N | 17E | 2 | NW | Kateel River | |
| 4205 | KR48 | 1991 | Outwash Ck SE | Outwash Creek | Colville | Quartz | Float | Grab | Killik River | A–4 | 32N | 17E | 2 | NW | Kateel River | <0.01 |
| 4206 | KR47 | 1991 | Outwash Creek SE | Outwash Creek | Colville | Siltstone | Rubblecrop | Grab | Killik River | A–4 | 32N | 17E | 2 | NE | Kateel River | |
| 4207 | KR67 | 1991 | | Kurupa River trib | Colville | Sandstone | Float | Grab | Killik River | A–3 | 33N | 18E | 23 | SW | Kateel River | |
| 4208 | KR61 | 1991 | | Karupa Hills | Colville | Chert | Outcrop | Grab | Killik River | B–4 | 34N | 17E | 12 | SE | Kateel River | |
| 4209 | KR74 | 1991 | Togoyuk Ck Barite | Togoyuk Creek | Colville | Sandstone | Float | Grab | Killik River | A–2 | 32N | 22E | 4 | NE | Kateel River | |
| 4210 | KR38 | 1991 | Kady | Outwash Ck trib | Colville | Sandstone | Float | Select | Killik River | A–4 | 32N | 17E | 4 | SW | Kateel River | 0.22 |
| 4211 | KR76 | 1991 | | Kanorgiksak Creek | Colville | Quartz | Outcrop | Select | Killik River | A–2 | 32N | 22E | 35 | NE | Kateel River | <0.01 |
| 4212 | KR61 | 1991 | | Karupa Hills | Colville | Quartz | Outcrop | Select | Killik River | B–4 | 34N | 17E | 13 | NE | Kateel River | |
| 4213 | KR84 | 1991 | | Kikoyat Creek | Colville | Sandstone | Float | Grab | Killik River | B–1 | 34N | 24E | 25 | NW | Kateel River | 0.02 |
| 4214 | KR85 | 1991 | | Grizzly Mtn | Colville | Shale | Float | Grab | Killik River | A–1 | 32N | 25E | 1 | SW | Kateel River | <0.01 |
| 4216 | KR83 | 1991 | | Fire Ck trib | Colville | Conglomerate | Float | Grab | Killik River | B–1 | 34N | 24E | 14 | NE | Kateel River | |
| 4217 | KR30 | 1991 | Kakivilak Ck North | Kakivilak Creek | Colville | Quartz | Outcrop | Select | Killik River | A–4 | 32N | 17E | 22 | SW | Kateel River | <0.01 |
| 4218 | KR31 | 1991 | Kakivilak Ck North | Kakivilak Creek | Colville | Quartz | Rubblecrop | Select | Killik River | A–4 | 32N | 17E | 22 | SW | Kateel River | 0.02 |
| 4219 | KR1 | 1991 | Ivotuk Hills | Otuk Creek | Colville | Limestone | Outcrop | Select | Killik River | B–5 | 11S | 16W | 20 | NW | Kateel River | |
| 4220 | KR62 | 1991 | | Karupa River trib | Colville | Quartz | Rubblecrop | Select | Killik River | A–3 | 33N | 18E | 21 | SW | Kateel River | 0.20 |
| 4221 | KR69 | 1991 | | Karupa River trib | Colville | Sandstone | Float | Grab | Killik River | B–3 | 33N | 18E | 18 | SE | Kateel River | 0.10 |
| 4222 | KR39 | 1991 | Kady–extension | Outwash Ck trib | Colville | Quartz | Outcrop | Select | Killik River | A–4 | 32N | 17E | 4 | NW | Kateel River | 2.69 |
| 4223 | KR39 | 1991 | Kady–extension | Outwash Ck trib | Colville | Quartz | Outcrop | Channel | Killik River | A–4 | 32N | 17E | 4 | NW | Kateel River | 0.14 |
| 4224 | SP1 | 1991 | | Killik River trib | Colville | Shale | Float | Grab | Survey Pass | D–4 | 28N | 19E | 18 | SE | Kateel River | 0.03 |
| 4225 | KR10 | 1991 | | Siaviat Mtn trib | Colville | Quartz | Float | Grab | Killik River | A–5 | 31N | 15E | 19 | SE | Kateel River | <0.01 |
| 4226 | KR10 | 1991 | | Siaviat Mtn trib | Colville | Chert | Float | Grab | Killik River | A–5 | 31N | 15E | 19 | SE | Kateel River | 1.45 |
| 4241 | KR70 | 1991 | | Irivik Ck trib | Colville | Sandstone | Rubblecrop | Grab | Killik River | A–3 | 33N | 20E | 20 | SW | Kateel River | <0.01 |
| 5001 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Mudstone | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5002 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5003 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5004 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Mudstone | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5005 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5006 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Mudstone | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5007 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |

APPENDIX. 1990–1991 CMD Sample Analytical Results

| Sample no. | Map no. | Year | Property name | Location name | Mining district | Basic rock type | Sample site | Sample type | Quad name | Quad. no. | TWP | RNG | Section | Quarter section | Meridian | Cu % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5008 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5009 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5010 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5011 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5012 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5013 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5014 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5015 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Chert | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5016 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5017 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5018 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5019 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5020 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5021 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5022 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5023 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5024 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5025 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5026 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5027 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5028 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Chert | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5029 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Chert | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5030 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5031 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5032 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Shale/chert | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5033 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5034 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Chert/mudstone | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5035 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5036 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Chert/mudstone | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5037 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5038 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Chert/mudstone | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5039 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5040 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Qtzite/chert | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5041 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5042 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Chert/mudstone | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5043 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5044 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Tuff/chert | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5045 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5046 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5047 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5048 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Tuff | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5049 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5050 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Tuff | Float | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5051 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5052 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Tuff | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5053 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5054 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Tuff | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5055 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5056 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Tuff | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5057 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5058 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Tuff | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5059 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5060 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Tuff | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5061 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5062 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Tuff | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5063 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5064 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5065 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |

| Sample no. | Map no. | Year | Property name | Location name | Mining district | Basic rock type | Sample site | Sample type | Quad name | Quad. no. | TWP | RNG | Section | Quarter section | Meridian | Cu % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5066 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5067 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Tuff | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5068 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5069 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Tuff/chert | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5070 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5071 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5072 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5073 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5074 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5075 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5076 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Tuff | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5077 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5078 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5079 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Dacite | Rubblecrop | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5080 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5081 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Dacite | Rubblecrop | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5082 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5083 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Tuff | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5084 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5085 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Tuff | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5086 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5087 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5088 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Tuff | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5089 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Mudstone/chert | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5090 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Chert/tuff | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5091 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5092 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Chert | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5093 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5094 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Tuff/chert | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5095 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5096 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Chert/mudstone | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5097 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5098 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Tuff | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5099 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Tuff/chert | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5100 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5101 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Chert | Outcrop | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5102 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5103 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Chert/shale | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5105 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5106 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5107 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5108 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5109 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5110 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Chert | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5111 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5112 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Chert | | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5113 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5114 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5115 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Chert/quartz | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5116 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5117 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Chert | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5118 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5119 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Qtzite/chert | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5120 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5121 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Chert/Mudstone | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5122 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5123 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5124 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Chert/mudstone | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |

APPENDIX. 1990–1991 CMD Sample Analytical Results

| Sample no. | Map no. | Year | Property name | Location name | Mining district | Basic rock type | Sample site | Sample type | Quad name | Quad. no. | TWP | RNG | Section | Quarter section | Meridian | Cu % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5125 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Chert/mudstone | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5126 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5127 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Tuff | Rubblecrop | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5128 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Tuff | Rubblecrop | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5129 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Tuff | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5130 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5131 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Tuff | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5132 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5133 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Tuff | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5134 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5135 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Tuff | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5136 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5137 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5138 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5139 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Mudstone | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5140 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5141 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Mudstone/chert | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5142 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5143 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Dacite/chert | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5144 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5145 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Chert/quartz | Rubblecrop | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5146 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Dacite/chert | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5147 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5148 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5149 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Dacite/shale | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5150 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5151 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Chert | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5152 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5153 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5154 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Chert | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5155 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5156 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Tuff | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5157 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5158 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Tuff | Rubblecrop | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5159 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5160 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Tuff | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5161 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5162 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Tuff | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5163 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5164 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Tuff | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5165 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5166 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Felsite | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5167 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5168 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Felsite | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5169 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5170 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Tuff | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5171 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5172 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5173 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Mudstone | Rubblecrop | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5174 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5175 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Tuff | Rubblecrop | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5176 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5177 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Felsite/shale | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5178 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5179 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Mudstone/shale | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5180 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5181 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Mudstone/shale | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5182 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |

APPENDIX. 1990–1991 CMD Sample Analytical Results

| Sample no. | Map no. | Year | Property name | Location name | Mining district | Basic rock type | Sample site | Sample type | Quad name | Quad. no. | TWP | RNG | Section | Quarter section | Meridian | Cu % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5183 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Qtzite/quartz | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5184 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Chert/quartz | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5185 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Qtzite/chert | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5186 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5187 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Chert | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5188 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5189 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Qtzite/chert | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5190 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Felsite/tuff | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5191 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5192 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5193 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Qtzite/quartz | Rubblecrop | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5194 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5195 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Felsite | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5196 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5197 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Felsite | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5198 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5199 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5200 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Dacite | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5201 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Mudstone | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5202 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Tuff | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5203 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5204 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Chert | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5205 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5206 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Chert | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5207 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5208 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Chert | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5209 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5210 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Chert | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5211 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5212 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Tuff | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5213 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5214 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Mudstone | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5215 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5216 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Chert/mudstone | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5217 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5218 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Mudstone | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5219 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Chert | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5220 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5221 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Tuff | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5222 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5223 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Tuff | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5224 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5225 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5226 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Tuff | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5227 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5228 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5229 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5230 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Chert | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5231 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5232 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Chert | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5233 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Chert | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5234 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Chert | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5235 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5236 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Chert | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5237 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5238 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5239 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Chert | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5240 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |

| Sample no. | Map no. | Year | Property name | Location name | Mining district | Basic rock type | Sample site | Sample type | Quad name | Quad. no. | TWP | RNG | Section | Quarter section | Meridian | Cu % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5241 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Mudstone | Outcrop | Select | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5242 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Mudstone | Rubblecrop | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5243 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Mudstone | Outcrop | Cont. chip | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5244 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Chert/quartz | Outcrop | Cont. chip | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5245 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Chert | Outcrop | Rand. chip | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5246 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Qtzite | Rubblecrop | Bulk sample | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5247 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Qtzite | Rubblecrop | Rand. chip | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5248 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Qtzite | Outcrop | Rand. chip | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5249 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Qtzite | Rubblecrop | Rand. chip | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5250 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Chert | Outcrop | Cont. chip | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5251 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Chert | Rubblecrop | Select | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5252 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Chert | Rubblecrop | Select | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5253 | HP57 | 1991 | Story Creek | Story Creek | Colville | sandstone | Float | Grab | Howard Pass | B4 | 12S | 26W | 23 | SW | Umiat | |
| 5254 | HP57 | 1991 | Story Creek | Story Creek | Colville | | | Soil | Howard Pass | B4 | 12S | 26W | 23 | SW | Umiat | |
| 5255 | HP57 | 1991 | Story Creek | Story Creek | Colville | Sandstone | Float | Grab | Howard Pass | B4 | 12S | 26W | 23 | SW | Umiat | |
| 5256 | HP57 | 1991 | Story Creek | Story Creek | Colville | | | Soil | Howard Pass | B4 | 12S | 26W | 23 | SW | Umiat | |
| 5257 | HP57 | 1991 | Story Creek | Story Creek | Colville | Sandstone | Float | Grab | Howard Pass | B4 | 12S | 26W | 23 | SW | Umiat | |
| 5258 | HP57 | 1991 | Story Creek | Story Creek | Colville | | | Soil | Howard Pass | B4 | 12S | 26W | 23 | SW | Umiat | |
| 5259 | HP57 | 1991 | Story Creek | Story Creek | Colville | Sandstone | Float | Grab | Howard Pass | B4 | 12S | 26W | 23 | SW | Umiat | |
| 5260 | HP57 | 1991 | Story Creek | Story Creek | Colville | | | Soil | Howard Pass | B4 | 12S | 26W | 23 | SW | Umiat | |
| 5261 | HP57 | 1991 | Story Creek | Story Creek | Colville | shale breccia | Float | Grab | Howard Pass | B4 | 12S | 26W | 23 | SW | Umiat | |
| 5262 | HP57 | 1991 | Story Creek | Story Creek | Colville | | | Soil | Howard Pass | B4 | 12S | 26W | 23 | SW | Umiat | |
| 5263 | HP57 | 1991 | Story Creek | Story Creek | Colville | Sandstone | Float | Grab | Howard Pass | B4 | 12S | 26W | 23 | SW | Umiat | |
| 5264 | HP57 | 1991 | Story Creek | Story Creek | Colville | | | Soil | Howard Pass | B4 | 12S | 26W | 23 | SW | Umiat | |
| 5265 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Chert/tuff | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5266 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Sulfides | outcrop | Select | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5267 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Sulfides | Outcrop | Cont. chip | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5268 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Chert | Outcrop | Cont. chip | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5269 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Chert | Outcrop | Cont. chip | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5270 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Mudstone | Rubblecrop | Rand. chip | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5271 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Mudstone | Outcrop | Cont. chip | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5272 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Mudstone/chert | Rubblecrop | Rand. chip | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5273 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Chert | Outcrop | Cont. chip | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5274 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Chert | Outcrop | Rand. chip | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5275 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Chert | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5276 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5277 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Chert/mudstone | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5278 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5279 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Chert/mudstone | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5280 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5281 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Mudstone/chert | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5282 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5283 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Chert/mudstone | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5284 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5285 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Chert/mudstone | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5286 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Tuff/chert | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5287 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Tuff/mudstone | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5288 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5289 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Tuff/chert | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5290 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5291 | HP57 | 1991 | Story Creek | Story Creek | Colville | Sandstone | Rubblecrop | Select | Howard Pass | B4 | 12S | 26W | 23 | SW | Umiat | |
| 5292 | HP57 | 1991 | Story Creek | Story Creek | Colville | Sandstone | Outcrop | Cont. chip | Howard Pass | B4 | 12S | 26W | 23 | SW | Umiat | |
| 5293 | HP57 | 1991 | Story Creek | Story Creek | Colville | Sandstone | | | Howard Pass | B4 | 12S | 26W | 23 | SW | Umiat | |
| 5294 | HP57 | 1991 | Story Creek | Story Creek | Colville | Sulfides | Float | Select | Howard Pass | B4 | 12S | 26W | 23 | SW | Umiat | |
| 5295 | HP57 | 1991 | Story Creek | Story Creek | Colville | Sandstone | Outcrop | Cont. chip | Howard Pass | B4 | 12S | 26W | 23 | SW | Umiat | |
| 5296 | HP57 | 1991 | Story Creek | Story Creek | Colville | Sandstone | Float | Grab | Howard Pass | B4 | 12S | 26W | 23 | SW | Umiat | |
| 5297 | HP57 | 1991 | Story Creek | Story Creek | Colville | mudstone | Rubblecrop | Rand. chip | Howard Pass | B4 | 12S | 26W | 23 | SW | Umiat | |
| 5298 | HP57 | 1991 | Story Creek | Story Creek | Colville | Mudstone | Rubblecrop | Rand. chip | Howard Pass | B4 | 12S | 26W | 23 | SW | Umiat | |

| Sample no. | Map no. | Year | Property name | Location name | Mining district | Basic rock type | Sample site | Sample type | Quad name | Quad. no. | TWP | RNG | Section | Quarter section | Meridian | Cu % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5299 | HP57 | 1991 | Story Creek | Story Creek | Colville | Sandstone | Float | Grab | Howard Pass | B4 | 12S | 26W | 23 | SW | Umiat | |
| 5300 | HP57 | 1991 | Story Creek | Story Creek | Colville | | | Soil | Howard Pass | B4 | 12S | 26W | 23 | SW | Umiat | |
| 5301 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5302 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5303 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5304 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Dacite | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5305 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5306 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5307 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5308 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Tuff/dacite | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5309 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5310 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Tuff | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5311 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5312 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5313 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Chert | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5314 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5315 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5316 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5317 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5318 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Felsite | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5319 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Felsite | Float | Select | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5320 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Felsite | Float | Select | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5321 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5322 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Chert | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5323 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5324 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Chert/quartz | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5325 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5326 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Qtzite | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5327 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5328 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Qtzite | Rubblecrop | Select | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5329 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5330 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5331 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5332 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Chert/felsite | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5333 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5334 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Chert/quartz | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5335 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5336 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Chert/quartz | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5337 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5338 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Chert/quartz | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5339 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5340 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Felsite | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5341 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Chert | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5342 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5343 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Tuff | Rubblecrop | Select | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5344 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5345 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Qtzite | Rubblecrop | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5346 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Dacite | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5347 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Chert/quartz | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5348 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5349 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Mudstone/chert | Rubblecrop | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5350 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5351 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Mudstone/chert | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5352 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5353 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Chert/mudstone | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5354 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5355 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Chert | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5356 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |

| Sample no. | Map no. | Year | Property name | Location name | Mining district | Basic rock type | Sample site | Sample type | Quad name | Quad. no. | TWP | RNG | Section | Quarter section | Meridian | Cu % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5357 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Chert/quartz | Float | Select | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5358 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Chert | Float | Select | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5359 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Chert/quartz | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5360 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5361 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5362 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5363 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Felsite | Rubblecrop | Select | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5364 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Felsite | Outcrop | Select | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5365 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Chert/quartz | Rubblecrop | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5366 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Tuff | Outcrop | Select | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5367 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Tuff | Outcrop | Select | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5368 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Chert/qtzite | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5369 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5370 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Tuff/qtzite | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5371 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5372 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Tuff/chert | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5373 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5374 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Qtzite | Rubblecrop | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5375 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Chert/qtzite | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5376 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5377 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Chert | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5378 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Chert | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5379 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Chert | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5380 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5381 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Chert | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5382 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5383 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Chert | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5384 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5385 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5386 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Mudstone | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5387 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5388 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Mudstone/chert | Float | Grab | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5389 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5390 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | | | Soil | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5391 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Chert | Outcrop | Select | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5392 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Chert/quartz | Outcrop | Select | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5393 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Qtzite | Outcrop | Cont. chip | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5394 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Qtzite | Outcrop | Cont. chip | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5395 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Chert | Outcrop | Rand. chip | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5396 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Sulfides | Outcrop | Cont. chip | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5397 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Chert | Outcrop | Cont. chip | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5398 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Chert | Outcrop | Cont. chip | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5399 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Chert | Outcrop | Cont. chip | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5400 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Mudstone | Outcrop | Cont. chip | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5401 | HP57 | 1991 | Story Creek | Story Creek | Colville | Sandstone | Float | Grab | Howard Pass | B4 | 12S | 26W | 23 | SW | Umiat | |
| 5402 | HP57 | 1991 | Story Creek | Story Creek | Colville | | | Soil | Howard Pass | B4 | 12S | 26W | 23 | SW | Umiat | |
| 5403 | HP57 | 1991 | Story Creek | Story Creek | Colville | Shale | Float | Grab | Howard Pass | B4 | 12S | 26W | 23 | SW | Umiat | |
| 5404 | HP57 | 1991 | Story Creek | Story Creek | Colville | | | Soil | Howard Pass | B4 | 12S | 26W | 23 | SW | Umiat | |
| 5405 | HP57 | 1991 | Story Creek | Story Creek | Colville | Shale | Float | Grab | Howard Pass | B4 | 12S | 26W | 23 | SW | Umiat | |
| 5406 | HP57 | 1991 | Story Creek | Story Creek | Colville | | | Soil | Howard Pass | B4 | 12S | 26W | 23 | SW | Umiat | |
| 5407 | HP57 | 1991 | Story Creek | Story Creek | Colville | Shale | Float | Grab | Howard Pass | B4 | 12S | 26W | 23 | SW | Umiat | |
| 5408 | HP57 | 1991 | Story Creek | Story Creek | Colville | | | Soil | Howard Pass | B4 | 12S | 26W | 23 | SW | Umiat | |
| 5409 | HP57 | 1991 | Story Creek | Story Creek | Colville | Shale | Float | Grab | Howard Pass | B4 | 12S | 26W | 23 | SW | Umiat | |
| 5410 | HP57 | 1991 | Story Creek | Story Creek | Colville | | | Soil | Howard Pass | B4 | 12S | 26W | 23 | SW | Umiat | |
| 5411 | HP57 | 1991 | Story Creek | Story Creek | Colville | Siltstone | Float | Grab | Howard Pass | B4 | 12S | 26W | 23 | SW | Umiat | |
| 5412 | HP57 | 1991 | Story Creek | Story Creek | Colville | | | Soil | Howard Pass | B4 | 12S | 26W | 23 | SW | Umiat | |
| 5413 | HP57 | 1991 | Story Creek | Story Creek | Colville | Shale | Rubblecrop | Grab | Howard Pass | B4 | 12S | 26W | 23 | SW | Umiat | |
| 5414 | HP57 | 1991 | Story Creek | Story Creek | Colville | Shale | Float | Grab | Howard Pass | B4 | 12S | 26W | 23 | SW | Umiat | |

| Sample no. | Map no. | Year | Property name | Location name | Mining district | Basic rock type | Sample site | Sample type | Quad name | Quad. no. | TWP | RNG | Section | Quarter section | Meridian | Cu % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5415 | HP57 | 1991 | Story Creek | Story Creek | Colville | | | Soil | Howard Pass | B4 | 12S | 26W | 23 | SW | Umiat | |
| 5416 | HP57 | 1991 | Story Creek | Story Creek | Colville | Shale | Float | Grab | Howard Pass | B4 | 12S | 26W | 23 | SW | Umiat | |
| 5417 | HP57 | 1991 | Story Creek | Story Creek | Colville | Shale | Outcrop | Grab | Howard Pass | B4 | 12S | 26W | 23 | SW | Umiat | |
| 5418 | HP57 | 1991 | Story Creek | Story Creek | Colville | Shale | Outcrop | Grab | Howard Pass | B4 | 12S | 26W | 23 | SW | Umiat | |
| 5419 | HP57 | 1991 | Story Creek | Story Creek | Colville | Shale | Float | Grab | Howard Pass | B4 | 12S | 26W | 23 | SW | Umiat | |
| 5420 | HP57 | 1991 | Story Creek | Story Creek | Colville | Siltstone | Float | Grab | Howard Pass | B4 | 12S | 26W | 23 | SW | Umiat | |
| 5421 | HP57 | 1991 | Story Creek | Story Creek | Colville | Siltstone | Float | Select | Howard Pass | B4 | 12S | 26W | 23 | SW | Umiat | |
| 5422 | HP57 | 1991 | Story Creek | Story Creek | Colville | Siltstone | Float | Select | Howard Pass | B4 | 12S | 26W | 23 | SW | Umiat | |
| 5423 | HP57 | 1991 | Story Creek | Story Creek | Colville | Siltstone | Float | Select | Howard Pass | B4 | 12S | 26W | 23 | SW | Umiat | |
| 5424 | HP57 | 1991 | Story Creek | Story Creek | Colville | Siltstone | Float | Select | Howard Pass | B4 | 12S | 26W | 23 | SW | Umiat | |
| 5425 | HP57 | 1991 | Story Creek | Story Creek | Colville | Siltstone | Rubblecrop | Select | Howard Pass | B4 | 12S | 26W | 23 | SW | Umiat | |
| 5426 | HP57 | 1991 | Story Creek | Story Creek | Colville | Sulfides | Rubblecrop | Cont. chip | Howard Pass | B4 | 12S | 26W | 23 | SW | Umiat | |
| 5427 | HP57 | 1991 | Story Creek | Story Creek | Colville | Sulfides | Rubblecrop | Cont. chip | Howard Pass | B4 | 12S | 26W | 23 | SW | Umiat | |
| 5428 | HP57 | 1991 | Story Creek | Story Creek | Colville | Sulfides | Rubblecrop | Cont. chip | Howard Pass | B4 | 12S | 26W | 23 | SW | Umiat | |
| 5429 | HP57 | 1991 | Story Creek | Story Creek | Colville | Sulfides | Rubblecrop | Cont. chip | Howard Pass | B4 | 12S | 26W | 23 | SW | Umiat | |
| 5430 | HP57 | 1991 | Story Creek | Story Creek | Colville | Sulfides | Rubblecrop | Cont. chip | Howard Pass | B4 | 12S | 26W | 23 | SW | Umiat | |
| 5431 | HP57 | 1991 | Story Creek | Story Creek | Colville | Siltstone | Outcrop | Cont. chip | Howard Pass | B4 | 12S | 26W | 23 | SW | Umiat | |
| 5432 | HP57 | 1991 | Story Creek | Story Creek | Colville | Sulfides | Float | Select | Howard Pass | B4 | 12S | 26W | 23 | SW | Umiat | |
| 5433 | HP78 | 1991 | Kivliktort East | Kivliktort Mtn | Colville | Sandstone | Float | Select | Howard Pass | B1 | 33N | 10E | 13 | SW | Kateel River | |
| 5434 | HP73 | 1991 | Kivliktort West | Kivliktort Mtn | Colville | Sandstone | Float | Select | Howard Pass | B2 | 34N | 10E | 31 | E | Kateel River | |
| 5435 | HP73 | 1991 | Kivliktort West | Kivliktort Mtn | Colville | Sandstone | Float | Select | Howard Pass | B2 | 34N | 10E | 31 | E | Kateel River | |
| 5436 | HP73 | 1991 | Kivliktort West | Kivliktort Mtn | Colville | Sandstone | Float | Select | Howard Pass | B2 | 34N | 10E | 31 | E | Kateel River | |
| 5437 | HP73 | 1991 | Kivliktort West | Kivliktort Mtn | Colville | Sandstone | Float | Select | Howard Pass | B2 | 34N | 10E | 31 | E | Kateel River | |
| 5438 | HP73 | 1991 | Kivliktort West | Kivliktort Mtn | Colville | Sulfides | Float | Select | Howard Pass | B2 | 34N | 10E | 31 | E | Kateel River | |
| 5439 | HP73 | 1991 | Kivliktort West | Kivliktort Mtn | Colville | Sulfides | Float | Select | Howard Pass | B2 | 34N | 10E | 31 | E | Kateel River | |
| 5440 | HP73 | 1991 | Kivliktort West | Kivliktort Mtn | Colville | Sandstone | Outcrop | Select | Howard Pass | B2 | 34N | 10E | 31 | E | Kateel River | |
| 5441 | HP73 | 1991 | Kivliktort West | Kivliktort Mtn | Colville | Sandstone | Float | Select | Howard Pass | B2 | 34N | 10E | 31 | E | Kateel River | |
| 5442 | HP73 | 1991 | Kivliktort West | Kivliktort Mtn | Colville | Sandstone | Float | Select | Howard Pass | B2 | 34N | 10E | 31 | E | Kateel River | |
| 5443 | HP36 | 1991 | Kady | Outwash Ck | Colville | Quartz vein | Float | Select | Killik River | A4 | 32N | 17E | 4 | SW | Kateel River | |
| 5444 | HP36 | 1991 | Kady | Outwash Ck | Colville | Quartz vein | Outcrop | Rand. chip | Killik River | A4 | 32N | 17E | 4 | SW | Kateel River | |
| 5445 | HP36 | 1991 | Kady | Outwash Ck | Colville | Sulfides | Float | Select | Killik River | A4 | 32N | 17E | 4 | SW | Kateel River | |
| 5446 | HP36 | 1991 | Kady | Outwash Ck | Colville | Quartz vein | Rubblecrop | Rand. chip | Killik River | A4 | 32N | 17E | 4 | SW | Kateel River | |
| 5447 | HP36 | 1991 | Kady | Outwash Ck | Colville | Quartz vein | Float | Rand. chip | Killik River | A4 | 32N | 17E | 4 | SW | Kateel River | |
| 5448 | HP36 | 1991 | Kady | Outwash Ck | Colville | Quartz vein | Outcrop | Cont. chip | Killik River | A4 | 32N | 17E | 4 | SW | Kateel River | |
| 5449 | HP36 | 1991 | Kady | Outwash Ck | Colville | Quartz vein | Outcrop | Grab | Killik River | A4 | 32N | 17E | 4 | SW | Kateel River | |
| 5450 | HP36 | 1991 | Kady | Outwash Ck | Colville | Quartz vein | Rubblecrop | Rand. chip | Killik River | A4 | 32N | 17E | 4 | SW | Kateel River | |
| 5451 | HP36 | 1991 | Kady | Outwash Ck | Colville | Quartz vein | Outcrop | Cont. chip | Killik River | A4 | 32N | 17E | 4 | SW | Kateel River | |
| 5452 | HP36 | 1991 | Kady | Outwash Ck | Colville | Quartz vein | Outcrop | Cont. chip | Killik River | A4 | 32N | 17E | 4 | SW | Kateel River | |
| 5453 | HP36 | 1991 | Kady | Outwash Ck | Colville | Quartz vein | Outcrop | Cont. chip | Killik River | A4 | 32N | 17E | 4 | SW | Kateel River | |
| 5454 | HP36 | 1991 | Kady | Outwash Ck | Colville | Quartz vein | Float | Grab | Killik River | A4 | 32N | 17E | 4 | SW | Kateel River | |
| 5455 | HP36 | 1991 | Kady | Outwash Ck | Colville | Sulfides | Float | Select | Killik River | A4 | 32N | 17E | 4 | SW | Kateel River | |
| 5456 | HP36 | 1991 | Kady | Outwash Ck | Colville | Quartz vein | Outcrop | Cont. chip | Killik River | A4 | 32N | 17E | 4 | SW | Kateel River | |
| 5457 | HP36 | 1991 | Kady | Outwash Ck | Colville | Quartz vein | Rubblecrop | Grab | Killik River | A4 | 32N | 17E | 4 | SW | Kateel River | |
| 5458 | HP36 | 1991 | Kady | Outwash Ck | Colville | Quartz vein | Float | Select | Killik River | A4 | 32N | 17E | 4 | SW | Kateel River | 2.62 |
| 5459 | HP84 | 1991 | Kolyaktot West | Kolyaktot Mtn | Colville | Sulfides | Float | Select | Howard Pass | A1 | 33N | 11E | 34 | N | Kateel River | |
| 5460 | HP84 | 1991 | Kolyaktot West | Kolyaktot Mtn | Colville | Quartz vein | Float | Select | Howard Pass | A1 | 33N | 11E | 34 | N | Kateel River | |
| 5461 | HP84 | 1991 | Kolyaktot West | Kolyaktot Mtn | Colville | Quartz vein | Float | Select | Howard Pass | A1 | 33N | 11E | 27 | SW | Kateel River | |
| 5462 | HP84 | 1991 | Kolyaktot West | Kolyaktot Mtn | Colville | Sandstone | Float | Select | Howard Pass | A1 | 33N | 11E | 28 | NE | Kateel River | |
| 5464 | HP84 | 1991 | Kolyaktot West | Kolyaktot Mtn | Colville | Gossan | Float | Select | Howard Pass | A1 | 33N | 11E | 27 | SW | | |
| 5502 | HP57 | 1991 | Story Creek | Story Creek | Colville | Siltstone | Float | Grab | Howard Pass | B4 | 12S | 26W | 23 | SW | Umiat | |
| 5503 | HP57 | 1991 | Story Creek | Story Creek | Colville | | | Soil | Howard Pass | B4 | 12S | 26W | 23 | SW | Umiat | |
| 5504 | HP57 | 1991 | Story Creek | Story Creek | Colville | Siltstone | Float | Grab | Howard Pass | B4 | 12S | 26W | 23 | SW | Umiat | |
| 5505 | HP57 | 1991 | Story Creek | Story Creek | Colville | Siltstone | Float | Grab | Howard Pass | B4 | 12S | 26W | 23 | SW | Umiat | |
| 5506 | HP57 | 1991 | Story Creek | Story Creek | Colville | | | Soil | Howard Pass | B4 | 12S | 26W | 23 | SW | Umiat | |
| 5507 | HP57 | 1991 | Story Creek | Story Creek | Colville | Siltstone | Float | Grab | Howard Pass | B4 | 12S | 26W | 23 | SW | Umiat | |
| 5508 | HP57 | 1991 | Story Creek | Story Creek | Colville | Sulfides | Float | Select | Howard Pass | B4 | 12S | 26W | 23 | SW | Umiat | |
| 5509 | HP57 | 1991 | Story Creek | Story Creek | Colville | | | Soil | Howard Pass | B4 | 12S | 26W | 23 | SW | Umiat | |
| 5510 | HP57 | 1991 | Story Creek | Story Creek | Colville | Siltstone | Float | Grab | Howard Pass | B4 | 12S | 26W | 23 | SW | Umiat | |

| Sample no. | Map no. | Year | Property name | Location name | Mining district | Basic rock type | Sample site | Sample type | Quad name | Quad. no. | TWP | RNG | Section | Quarter section | Meridian | Cu % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5511 | HP57 | 1991 | Story Creek | Story Creek | Colville | | | Soil | Howard Pass | B4 | 12S | 26W | 23 | SW | Umiat | |
| 5512 | HP57 | 1991 | Story Creek | Story Creek | Colville | Siltstone | Float | Grab | Howard Pass | B4 | 12S | 26W | 23 | SW | Umiat | |
| 5513 | HP57 | 1991 | Story Creek | Story Creek | Colville | Siltstone | Float | Grab | Howard Pass | B4 | 12S | 26W | 23 | SW | Umiat | |
| 5514 | HP57 | 1991 | Story Creek | Story Creek | Colville | | | Soil | Howard Pass | B4 | 12S | 26W | 23 | SW | Umiat | |
| 5515 | HP57 | 1991 | Story Creek | Story Creek | Colville | Siltstone | Float | Grab | Howard Pass | B4 | 12S | 26W | 23 | SW | Umiat | |
| 5516 | HP57 | 1991 | Story Creek | Story Creek | Colville | | | Soil | Howard Pass | B4 | 12S | 26W | 23 | SW | Umiat | |
| 5517 | HP57 | 1991 | Story Creek | Story Creek | Colville | Siltstone | Float | Grab | Howard Pass | B4 | 12S | 26W | 23 | SW | Umiat | |
| 5518 | HP57 | 1991 | Story Creek | Story Creek | Colville | Siltstone | Float | Grab | Howard Pass | B4 | 12S | 26W | 23 | SW | Umiat | |
| 5519 | HP57 | 1991 | Story Creek | Story Creek | Colville | Siltstone | Float | Grab | Howard Pass | B4 | 12S | 26W | 23 | SW | Umiat | |
| 5520 | HP57 | 1991 | Story Creek | Story Creek | Colville | Siltstone | Float | Grab | Howard Pass | B4 | 12S | 26W | 23 | SW | Umiat | |
| 5521 | HP57 | 1991 | Story Creek | Story Creek | Colville | | | Soil | Howard Pass | B4 | 12S | 26W | 23 | SW | Umiat | |
| 5522 | HP57 | 1991 | Story Creek | Story Creek | Colville | Sandstone | Float | Grab | Howard Pass | B4 | 12S | 26W | 23 | SW | Umiat | |
| 5523 | HP57 | 1991 | Story Creek | Story Creek | Colville | | | Soil | Howard Pass | B4 | 12S | 26W | 23 | SW | Umiat | |
| 5524 | HP57 | 1991 | Story Creek | Story Creek | Colville | Sandstone | Float | Grab | Howard Pass | B4 | 12S | 26W | 23 | SW | Umiat | |
| 5525 | HP31 | 1991 | Drenchwater Creek | Drenchwater Creek | Colville | Chert | Outcrop | Rand. chip | Howard Pass | C5 | 10S | 29W | 16 | | Umiat | |
| 5526 | HP57 | 1991 | Story Creek | Story Creek | Colville | | | Soil | Howard Pass | B4 | 12S | 26W | 23 | SW | Umiat | |
| 5527 | HP57 | 1991 | Story Creek | Story Creek | Colville | Sandstone | Float | Grab | Howard Pass | B4 | 12S | 26W | 23 | SW | Umiat | |
| 5528 | HP57 | 1991 | Story Creek | Story Creek | Colville | Sandstone | Float | Grab | Howard Pass | B4 | 12S | 26W | 23 | SW | Umiat | |
| 5529 | HP57 | 1991 | Story Creek | Story Creek | Colville | | | Soil | Howard Pass | B4 | 12S | 26W | 23 | SW | Umiat | |
| 5530 | HP57 | 1991 | Story Creek | Story Creek | Colville | Sandstone | Float | Grab | Howard Pass | B4 | 12S | 26W | 23 | SW | Umiat | |
| 5531 | HP57 | 1991 | Story Creek | Story Creek | Colville | | | Soil | Howard Pass | B4 | 12S | 26W | 23 | SW | Umiat | |
| 5532 | HP57 | 1991 | Story Creek | Story Creek | Colville | Sandstone | Float | Grab | Howard Pass | B4 | 12S | 26W | 23 | SW | Umiat | |
| 5533 | HP57 | 1991 | Story Creek | Story Creek | Colville | Quartz | Float | Select | Howard Pass | B4 | 12S | 26W | 23 | SW | Umiat | |
| 5534 | HP57 | 1991 | Story Creek | Story Creek | Colville | Quartz | Float | Grab | Howard Pass | B4 | 12S | 26W | 23 | SW | Umiat | |
| 5535 | HP57 | 1991 | Story Creek | Story Creek | Colville | | | Soil | Howard Pass | B4 | 12S | 26W | 23 | SW | Umiat | |
| 5536 | HP57 | 1991 | Story Creek | Story Creek | Colville | Sandstone | Float | Grab | Howard Pass | B4 | 12S | 26W | 23 | SW | Umiat | |
| 5537 | HP57 | 1991 | Story Creek | Story Creek | Colville | | | Soil | Howard Pass | B4 | 12S | 26W | 23 | SW | Umiat | |
| 5538 | HP57 | 1991 | Story Creek | Story Creek | Colville | Sandstone | Float | Grab | Howard Pass | B4 | 12S | 26W | 23 | SW | Umiat | |
| 5539 | HP57 | 1991 | Story Creek | Story Creek | Colville | | | Soil | Howard Pass | B4 | 12S | 26W | 23 | SW | Umiat | |
| 5540 | HP57 | 1991 | Story Creek | Story Creek | Colville | Sandstone | Float | Grab | Howard Pass | B4 | 12S | 26W | 23 | SW | Umiat | |
| 5541 | HP57 | 1991 | Story Creek | Story Creek | Colville | Sandstone | Float | Grab | Howard Pass | B4 | 12S | 26W | 23 | SW | Umiat | |
| 5542 | HP57 | 1991 | Story Creek | Story Creek | Colville | Sandstone | Float | Grab | Howard Pass | B4 | 12S | 26W | 23 | SW | Umiat | |
| 5543 | HP57 | 1991 | Story Creek | Story Creek | Colville | | | Soil | Howard Pass | B4 | 12S | 26W | 23 | SW | Umiat | |
| 5544 | HP57 | 1991 | Story Creek | Story Creek | Colville | Sandstone | Float | Grab | Howard Pass | B4 | 12S | 26W | 23 | SW | Umiat | |
| 5545 | HP57 | 1991 | Story Creek | Story Creek | Colville | Sulfides | Float | Grab | Howard Pass | B4 | 12S | 26W | 23 | SW | Umiat | 1.99 |
| 5546 | HP57 | 1991 | Story Creek | Story Creek | Colville | Sandstone | Float | Select | Howard Pass | B4 | 12S | 26W | 23 | SW | Umiat | 2.86 |
| 5547 | HP57 | 1991 | Story Creek | Story Creek | Colville | | | Soil | Howard Pass | B4 | 12S | 26W | 23 | SW | Umiat | |
| 5548 | HP57 | 1991 | Story Creek | Story Creek | Colville | Sandstone | Float | Grab | Howard Pass | B4 | 12S | 26W | 23 | SW | Umiat | |
| 5549 | HP57 | 1991 | Story Creek | Story Creek | Colville | | | Soil | Howard Pass | B4 | 12S | 26W | 23 | SW | Umiat | |
| 5550 | HP57 | 1991 | Story Creek | Story Creek | Colville | Sandstone | Float | Grab | Howard Pass | B4 | 12S | 26W | 23 | SW | Umiat | |
| 5551 | HP73 | 1991 | Kivliktort West | Kivliktort Mtn | Colville | Sandstone | Outcrop | Select | Howard Pass | B2 | 34N | 10E | 31 | | Kateel River | |
| 5552 | HP73 | 1991 | Kivliktort West | Kivliktort Mtn | Colville | Sandstone | Float | Grab | Howard Pass | B2 | 34N | 10E | 31 | | Kateel River | |
| 5553 | HP73 | 1991 | Kivliktort West | Kivliktort Mtn | Colville | Sandstone | Float | Select | Howard Pass | B2 | 34N | 10E | 31 | | Kateel River | |
| 5554 | HP73 | 1991 | Kivliktort West | Kivliktort Mtn | Colville | Sandstone | Float | Select | Howard Pass | B2 | 34N | 10E | 31 | | Kateel River | |
| 5555 | HP73 | 1991 | Kivliktort West | Kivliktort Mtn | Colville | Sandstone | Float | Select | Howard Pass | B2 | 34N | 10E | 31 | | Kateel River | |
| 5556 | KR36 | 1991 | Kady | Outwash Ck trib | Colville | Sulfides | Outcrop | Rand. chip | Killik RiverHowa | A4 | 32N | 17E | 4 | SW | Kateel River | |
| 5556 | KR36 | 1991 | Kady | Outwash Ck trib | Colville | | | | Killik RiverHowa | A4 | 32N | 17E | 4 | SW | Kateel River | |
| 5557 | KR36 | 1991 | Kady | Outwash Ck trib | Colville | Sandstone | Outcrop | Rand. chip | Killik RiverHowa | A4 | 32N | 17E | 4 | SW | Kateel River | |
| 5558 | KR36 | 1991 | Kady | Outwash Ck trib | Colville | Quartz vein | Rubblecrop | Select | Killik RiverHowa | A4 | 32N | 17E | 4 | SW | Kateel River | |
| 5559 | KR36 | 1991 | Kady | Outwash Ck trib | Colville | Quartz Vein | Outcrop | Rand. chip | Killik RiverHowa | A4 | 32N | 17E | 4 | SW | Kateel River | |
| 5560 | KR36 | 1991 | Kady | Outwash Ck trib | Colville | Sulfides | Outcrop | Select | Killik RiverHowa | A4 | 32N | 17E | 4 | SW | Kateel River | |
| 5561 | KR36 | 1991 | Kady | Outwash Ck trib | Colville | Quartz vein | Outcrop | Cont. chip | Killik RiverHowa | A4 | 32N | 17E | 4 | SW | Kateel River | |
| 5562 | KR36 | 1991 | Kady | Outwash Ck trib | Colville | Sulfides | Outcrop | Rand. chip | Killik RiverHowa | A4 | 32N | 17E | 4 | SW | Kateel River | |
| 5563 | KR36 | 1991 | Kady | Outwash Ck trib | Colville | Quartz vein | Rubblecrop | Select | Killik RiverHowa | A4 | 32N | 17E | 4 | SW | Kateel River | |
| 5564 | KR36 | 1991 | Kady | Outwash Ck trib | Colville | Quartz vein | Float | Grab | Killik RiverHowa | A4 | 32N | 17E | 4 | SW | Kateel River | |
| 5565 | HP90 | 1991 | Kolyaktot East | Kolyaktot Mtn | Colville | Quartz vein | Float | Grab | Howard Pass | A1 | 32N | 12E | 9 | NE | Kateel River | |
| 5601 | HP73 | 1991 | Kivliktort West | Kivliktort Mtn | Colville | Sandstone | Rubblecrop | Select | Howard Pass | B2 | 34N | 10E | 31 | E | Kateel River | |
| 5602 | HP73 | 1991 | Kivliktort West | Kivliktort Mtn | Colville | Massive barite | Float | select | Howard Pass | B2 | 34N | 10E | 31 | E | Kateel River | |

APPENDIX. 1990–1991 CMD Sample Analytical Results

| Sample no. | Map no. | Year | Property name | Location name | Mining district | Basic rock type | Sample site | Sample type | Quad name | Quad. no. | TWP | RNG | Section | Quarter section | Meridian | Cu % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5603 | KR36 | 1991 | Kady | Outwash Ck trib | Colville | Quartz vein | Outcrop | Cont. chip | Killik River | A4 | 32N | 17E | 4 | SW | Kateel River | |
| 5604 | KR36 | 1991 | Kady | Outwash Ck trib | Colville | Quartz vein | Float | Grab | Killik River | A4 | 32N | 17E | 4 | SW | Kateel River | |
| 5605 | HP73 | 1991 | Kolyaktot West | Kolyaktot Mtn | Colville | Quartz veins | Float | Select | Howard Pass | A1 | 33N | 11E | 34 | N | Kateel River | |

APPENDIX. 1990–1991 CMD Sample Analytical Results

| Sample no. | Pb % | Zn % | Ba % | Cr % | Mn % | Ag ppm | Cu ppm | Pb ppm | Zn ppm | Mo ppm | Ni ppm | Co ppm | Cd ppm | Bi ppm | As ppm | Sb ppm | Fe % | Mn ppm | Te ppm | Ba ppm | Cr ppm | V ppm | Sn ppm | W ppm |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4001 | 0.0031 | 0.0172 | | | | 3.0 | 10 | | | <1 | 44 | 10 | <1.0 | <5 | <5 | 18 | >10.00 | 2,200 | 35 | 215 | 65 | 128 | <20 | 21 |
| 4002 | 0.0054 | 0.0172 | | | | 1.8 | 54 | | | <1 | 115 | 45 | <1.0 | 7 | 31 | <5 | >10.00 | 3,200 | <10 | 1,196 | 263 | 142 | <20 | 25 |
| 4003 | 0.0034 | 0.0265 | | | | 1.1 | 41 | | | <1 | 85 | 32 | <1.0 | 5 | <5 | <5 | 9.58 | 2,100 | <10 | 840 | 303 | 121 | <20 | 22 |
| 4004 | 0.0023 | 0.0172 | | | | 1.4 | 37 | | | <1 | 103 | 41 | <1.0 | 17 | <5 | <5 | >10.00 | 2,500 | <10 | 490 | 189 | 128 | <20 | <10 |
| 4005 | 0.0022 | 0.0177 | | | | 0.4 | 16 | | | <1 | 48 | 12 | <1.0 | <5 | <5 | <5 | 4.22 | 300 | <10 | 1,051 | 150 | 101 | <20 | <10 |
| 4006 | 0.0040 | 0.0124 | | | | 0.7 | 20 | | | <1 | 52 | 14 | <1.0 | <5 | 10 | <5 | 5.02 | 400 | <10 | 467 | 137 | 93 | <20 | <10 |
| 4007 | 0.0300 | 0.4381 | | | | 2.5 | 23 | | | 5 | 109 | 55 | <1.0 | <5 | 34 | 15 | >10.00 | 6,500 | 15 | 288 | 168 | 88 | <20 | <10 |
| 4008 | 0.0395 | 0.0633 | | | | 1.9 | 38 | | | <1 | 106 | 45 | <1.0 | 8 | <5 | 5 | >10.00 | 4,500 | 12 | 396 | 321 | 127 | <20 | <10 |
| 4009 | 0.7940 | 49.9100 | | | | >50.0 | 204 | | | 216 | 23 | 80 | 1,679.0 | 359 | 209 | 404 | 4.87 | <100 | 238 | 8 | 99 | 2 | 87 | <10 |
| 4010 | 0.8317 | 0.5317 | | | | 10.5 | 6 | | | 2 | 53 | 14 | 13.0 | 11 | <5 | <5 | >10.00 | 6,300 | <10 | 200 | 184 | 103 | <20 | <10 |
| 4011 | 0.0048 | 0.0367 | | | | 1.4 | 68 | | | 3 | 89 | 24 | <1.0 | <5 | 39 | <5 | 5.47 | 1,800 | <10 | >2,000 | 134 | 233 | <20 | <10 |
| 4012 | 2.0800 | 15.8200 | | | | >50.0 | 171 | | | 107 | 9 | 39 | 730.0 | 140 | 115 | 117 | 1.98 | <100 | 121 | 172 | 182 | 21 | <20 | <10 |
| 4013 | 2.7600 | 31.5000 | | | | >50.0 | 328 | | | 171 | 16 | 93 | 1,712.0 | 251 | 149 | 248 | 1.45 | <100 | 218 | 87 | 140 | 13 | 59 | <10 |
| 4014 | 1.5800 | 7.3600 | | | | >50.0 | 100 | | | 51 | 11 | 16 | 394.0 | 76 | 87 | 46 | 0.78 | <100 | 54 | 358 | 228 | 24 | 55 | <10 |
| 4015 | 0.0691 | 19.5700 | | | | 15.7 | 394 | | | 122 | 147 | 79 | 1,062.0 | 180 | 376 | 881 | 3.16 | 200 | 165 | 132 | 239 | 25 | 73 | <10 |
| 4016 | 0.0089 | 0.0482 | | | | 3.8 | 13 | | | 2 | 59 | 7 | <1.0 | <5 | 148 | 14 | >10.00 | 700 | 78 | 110 | 743 | 188 | <20 | 40 |
| 4017 | | | | 0.05 | | <0.5 | 159 | <2 | 96 | 4 | 67 | 42 | <2.0 | 22 | 16 | 6 | 9.69 | 1,323 | <25 | >2,000 | 160 | 347 | <20 | <20 |
| 4018 | | | | | | <0.5 | 45 | <2 | 74 | <1 | 55 | 18 | <2.0 | 21 | 17 | <5 | 1.88 | 10,702 | <25 | >2,000 | 40 | 51 | <20 | <20 |
| 4019 | | | | 0.04 | | <0.5 | 34 | <2 | 68 | 2 | 30 | 17 | <2.0 | 12 | 15 | <5 | 4.18 | 1,138 | <25 | >2,000 | 114 | 147 | <20 | <20 |
| 4020 | 0.0014 | 0.0635 | | | | 1.1 | 17 | | | <1 | 98 | 19 | <1.0 | 16 | <5 | 37 | >10.00 | 1,200 | 27 | 51 | 123 | 85 | <20 | 24 |
| 4021 | 0.0012 | 0.0099 | | | | <0.2 | 7 | | | <1 | 29 | 12 | <1.0 | 19 | 9 | 18 | 1.20 | 800 | <10 | 1,127 | 35 | 51 | <20 | <10 |
| 4022 | 0.0029 | 0.0509 | | | | 0.8 | 37 | | | 3 | 75 | 12 | <1.0 | 39 | 12 | <5 | >10.00 | 700 | <10 | 325 | 103 | 71 | <20 | <10 |
| 4023 | 0.0050 | 0.3090 | | | | 0.5 | 42 | | | <1 | 95 | 37 | <1.0 | <5 | 5 | <5 | 9.51 | 1,800 | <10 | >2,000 | 378 | 137 | <20 | 24 |
| 4024 | 0.0053 | 0.0330 | | | | 2.1 | 54 | | | 2 | 113 | 43 | <1.0 | <5 | 11 | <5 | >10.00 | 3,500 | 29 | 982 | 1,103 | 142 | <20 | <10 |
| 4025 | 0.2460 | 13.1900 | | | | 0.5 | 531 | | | 83 | 11 | 62 | 687.0 | 145 | 57 | 147 | 3.77 | <100 | 93 | 167 | 321 | 12 | 27 | <10 |
| 4026 | 1.5500 | 2.4100 | | | | 21.0 | 41 | | | 15 | 8 | 12 | 81.0 | 41 | 59 | 16 | 2.10 | <100 | <10 | 400 | 284 | 28 | 30 | <10 |
| 4027 | | | | 0.04 | | <0.5 | 16 | <2 | 52 | 2 | 28 | 7 | <2.0 | 9 | 9 | <5 | 1.38 | 624 | <25 | >2,000 | 240 | 18 | <20 | <20 |
| 4028 | | | | | | <0.5 | 15 | <2 | 27 | 7 | 10 | 3 | <2.0 | 11 | <5 | <5 | 1.33 | 53 | <25 | >2,000 | 196 | 22 | <20 | <20 |
| 4029 | | | | | | <0.5 | 4 | <2 | 6 | 3 | 14 | 3 | <2.0 | <5 | <5 | <5 | >10.00 | 3,891 | <25 | 1,039 | 79 | 54 | 25 | <20 |
| 4030 | | | | | | <0.5 | 62 | <2 | 20 | 5 | 16 | 5 | <2.0 | 10 | <5 | <5 | 1.72 | 86 | <25 | 1,022 | 195 | 47 | <20 | <20 |
| 4031 | | | | | | 0.9 | 39 | <2 | 20 | 2 | 16 | 3 | <2.0 | 13 | 19 | 6 | 1.41 | 132 | <25 | 1,323 | 384 | 59 | <20 | <20 |
| 4032 | | | | | | <0.5 | 8 | <2 | 32 | 1 | 18 | 11 | <2.0 | 14 | <5 | <5 | 3.13 | 3,017 | <25 | 509 | 38 | 31 | <20 | <20 |
| 4033 | | | | | | <0.5 | 23 | <2 | 47 | 2 | 28 | 8 | <2.0 | 9 | 14 | 6 | 1.17 | 1,617 | <25 | >2,000 | 360 | 19 | <20 | <20 |
| 4034 | | | | | | <0.5 | 40 | <2 | 85 | 2 | 15 | 10 | <2.0 | 9 | 23 | <5 | 2.78 | 12,304 | <25 | 1,053 | 23 | 44 | <20 | <20 |
| 4035 | | | | | | 0.7 | 25 | <2 | 34 | 6 | 24 | 6 | <2.0 | 7 | 21 | <5 | 0.86 | 437 | <25 | >2,000 | 343 | 28 | <20 | <20 |
| 4036 | | | | | | 0.9 | 46 | <2 | 44 | 6 | 22 | 3 | <2.0 | 16 | 20 | <5 | 1.12 | 375 | <25 | 1,953 | 156 | 101 | <20 | <20 |
| 4037 | | | | | | 0.8 | 7 | <2 | 24 | 1 | 7 | <1 | <2.0 | 10 | 18 | <5 | 1.39 | 52 | <25 | 175 | 263 | 10 | <20 | <20 |
| 4038 | | | | | | <0.5 | 38 | <2 | 25 | 10 | 17 | 6 | <2.0 | 13 | <5 | <5 | 0.75 | 1,231 | <25 | >2,000 | 363 | 17 | <20 | <20 |
| 4039 | | | | | | <0.5 | 9 | <2 | 13 | 1 | 3 | 2 | <2.0 | <5 | 18 | <5 | 0.40 | 20 | <25 | 1,537 | 23 | 16 | <20 | <20 |
| 4040 | | | | | | <0.5 | 24 | <2 | 51 | 9 | 28 | 5 | <2.0 | 14 | 16 | 8 | 1.57 | 654 | <25 | >2,000 | 320 | 18 | <20 | <20 |
| 4041 | | | | | | <0.5 | 9 | <2 | 28 | <1 | 13 | 4 | <2.0 | 9 | 19 | <5 | 1.32 | 276 | <25 | >2,000 | 338 | 31 | <20 | <20 |
| 4042 | | | | | | <0.5 | 11 | 15 | 587 | 7 | 25 | 2 | <2.0 | <5 | 5 | <5 | 0.81 | 149 | <25 | 130 | 49 | 36 | <20 | <20 |
| 4043 | | | | 0.07 | | 0.5 | 95 | 13 | 132 | 5 | 140 | 43 | <2.0 | 7 | <5 | 7 | 6.85 | 1,146 | <25 | 1,046 | 226 | 276 | 22 | <20 |
| 4044 | | | | | | 1.8 | 13 | 13 | 85 | 4 | 77 | 18 | <2.0 | <5 | <5 | <5 | >10.00 | 7,793 | <25 | 145 | 27 | 36 | 39 | <20 |
| 4045 | | | | | | 1.6 | 15 | 27 | 121 | 5 | 55 | 15 | <2.0 | <5 | <5 | <5 | >10.00 | 3,546 | <25 | 175 | 30 | 46 | 26 | <20 |
| 4046 | | | | | | <0.5 | 55 | 8 | 108 | 10 | 48 | 8 | <2.0 | <5 | 21 | <5 | 5.13 | 310 | <25 | 999 | 110 | 53 | <20 | <20 |
| 4047 | | | | | | <0.5 | 25 | 12 | 176 | 2 | 26 | 10 | <2.0 | 15 | 26 | 8 | 1.80 | >20,000 | 35 | >2,000 | 32 | 56 | <20 | <20 |
| 4048 | | | | | | <0.5 | 57 | <2 | 149 | 3 | 47 | 7 | <2.0 | <5 | 17 | <5 | 2.12 | 1,284 | <25 | >2,000 | 175 | 46 | <20 | <20 |
| 4049 | | | | | | <0.5 | 47 | <2 | 150 | 1 | 65 | 18 | <2.0 | <5 | <5 | <5 | 1.65 | 2,435 | <25 | >2,000 | 285 | 21 | <20 | <20 |
| 4051 | | | | | | <0.5 | 4 | 10 | 121 | 8 | 56 | 5 | <2.0 | 18 | 12 | 7 | 0.43 | 332 | 29 | 46 | 23 | 73 | <20 | <20 |
| 4052 | | | | | | <0.5 | 3 | <2 | 55 | <1 | 15 | 2 | <2.0 | 10 | 13 | <5 | 0.17 | 423 | <25 | 74 | 180 | 32 | <20 | <20 |
| 4053 | | | | | | <0.5 | 4 | <2 | 63 | 3 | 15 | 1 | <2.0 | 12 | 17 | <5 | 0.17 | 111 | <25 | 78 | 128 | 28 | <20 | <20 |
| 4054 | | | | | | 1.3 | 421 | 8 | 73 | 1 | 57 | 18 | <2.0 | <5 | 20 | <5 | 3.23 | 511 | <25 | 92 | 155 | 151 | <20 | 24 |
| 4055 | | | | 0.09 | | 2.6 | 1,211 | <2 | 108 | 2 | 59 | 22 | <2.0 | 15 | 21 | 5 | 4.18 | 613 | <25 | 50 | 115 | 191 | <20 | <20 |
| 4056 | | | | | | <0.5 | 53 | 8 | 77 | <1 | 62 | 6 | <2.0 | <5 | <5 | <5 | >10.00 | 341 | <25 | 588 | 189 | 32 | <20 | <20 |
| 4057 | | | | | | <0.5 | 37 | <2 | 72 | 5 | 23 | 2 | <2.0 | 7 | 13 | <5 | 1.25 | 576 | <25 | >2,000 | 300 | 14 | <20 | <20 |
| 4058 | | | | | | 1.5 | 105 | 193 | 279 | 5 | 29 | 3 | <2.0 | <5 | 277 | <5 | 5.45 | 461 | <25 | 599 | 157 | 206 | <20 | <20 |
| 4059 | 37.0400 | 21.8600 | | | | >50.0 | 389 | >10,000 | >20,000 | 148 | 14 | 43 | 1,130.5 | 134 | 145 | >2,000 | 3.69 | 24 | <25 | 24 | 68 | <2 | 149 | <20 |

APPENDIX. 1990–1991 CMD Sample Analytical Results

| Sample no. | Pb % | Zn % | Ba % | Cr % | Mn % | Ag ppm | Cu ppm | Pb ppm | Zn ppm | Mo ppm | Ni ppm | Co ppm | Cd ppm | Bi ppm | As ppm | Sb ppm | Fe % | Mn ppm | Te ppm | Ba ppm | Cr ppm | V ppm | Sn ppm | W ppm |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4060 | 15.3200 | 16.3500 | | | | >50.0 | 503 | >10,000 | >20,000 | 125 | 14 | 31 | 856.1 | 112 | 85 | 507 | 2.35 | 28 | <25 | 22 | 167 | 8 | 135 | <20 |
| 4061 | 14.7800 | 9.3100 | | | | >50.0 | 382 | >10,000 | >20,000 | 91 | 14 | 19 | 614.3 | 76 | 94 | 446 | 1.99 | 28 | <25 | 17 | 269 | 4 | 135 | <20 |
| 4062 | 3.3800 | 0.2200 | | | | 47.8 | 818 | >10,000 | 2,323 | 10 | 18 | <1 | 11.3 | 10 | 25 | 57 | 1.76 | 402 | <25 | 74 | 324 | 34 | <20 | <20 |
| 4063 | | | | | | 1.5 | 17 | 522 | 439 | 3 | 238 | 63 | <2.0 | 7 | 68 | 6 | >10.00 | 7,692 | <25 | 151 | 185 | 91 | <20 | <20 |
| 4064 | | | | | | 1.3 | 23 | 122 | 96 | 4 | 24 | <1 | <2.0 | <5 | 29 | <5 | 0.69 | 79 | <25 | >2,000 | 213 | 96 | <20 | 24 |
| 4065 | | | | | | <0.5 | 39 | 39 | 105 | 2 | 36 | 5 | <2.0 | 5 | 17 | <5 | 3.50 | 129 | <25 | 39 | 186 | 148 | <20 | <20 |
| 4066 | | | | | | <0.5 | 7 | 12 | 141 | 2 | 24 | 4 | <2.0 | <5 | <5 | <5 | >10.00 | 5,331 | <25 | 220 | 67 | 54 | <20 | <20 |
| 4067 | | | | | | <0.5 | 9 | 12 | 105 | 36 | 18 | 7 | <2.0 | 5 | <5 | <5 | 6.91 | 9,165 | <25 | 64 | 112 | 40 | <20 | <20 |
| 4068 | | | | | | <0.5 | 5 | <2 | 360 | 10 | 33 | 8 | <2.0 | <5 | 12 | <5 | 5.38 | 374 | <25 | 34 | 149 | 82 | <20 | <20 |
| 4069 | | | | | | 0.7 | 22 | <2 | 155 | 6 | 31 | 8 | <2.0 | 7 | 47 | <5 | 3.69 | 460 | <25 | 99 | 228 | 84 | <20 | <20 |
| 4070 | | | | | | <0.5 | 5 | <2 | 136 | 6 | 26 | 11 | <2.0 | 8 | 42 | <5 | 5.92 | 150 | <25 | 42 | 167 | 52 | <20 | <20 |
| 4071 | 0.3200 | 22.9800 | | | | >50.0 | 387 | 2900 | >20,000 | 178 | 10 | 55 | 880.2 | 143 | 131 | 199 | 1.06 | 34 | <25 | 53 | 278 | 10 | 70 | <20 |
| 4072 | 23.5600 | 23.4600 | | | | >50.0 | 354 | >10,000 | >20,000 | 150 | 19 | 32 | 1,140.3 | 135 | 116 | 173 | 0.55 | 16 | <25 | 10 | 128 | 6 | 63 | <20 |
| 4073 | 0.0900 | 12.4500 | | | | 12.6 | 5,428 | 864 | >20,000 | 102 | 38 | 61 | 1,067.2 | 101 | 120 | 67 | 1.58 | 29 | <25 | 11 | 322 | 3 | 56 | <20 |
| 4074 | 0.0900 | 1.3000 | | | | 3.6 | 3,454 | 731 | 12,461 | 23 | 19 | 5 | 105.5 | 16 | 44 | 9 | 0.82 | 34 | <25 | 40 | 367 | 5 | <20 | −20 |
| 4075 | <0.0100 | 35.7900 | | | | 5.1 | 844 | 207 | >20,000 | 240 | 20 | 87 | >2,000.0 | <5 | 242 | 89 | 1.14 | 29 | <25 | 14 | 173 | 8 | 81 | <20 |
| 4076 | <0.0100 | 23.8800 | | | | 0.9 | 688 | 154 | >20,000 | 152 | 32 | 63 | 1,807.7 | <5 | 269 | 57 | 0.87 | 23 | <25 | 10 | 190 | 3 | 84 | <20 |
| 4077 | <0.0100 | 0.1200 | | | | <0.5 | 20 | 44 | 1,941 | 12 | 51 | 23 | 4.7 | <5 | <5 | <5 | >10.00 | 11,779 | <25 | 1,714 | 135 | 160 | <20 | <20 |
| 4078 | <0.0100 | 0.3000 | | | | <0.5 | 86 | 58 | 2,893 | 5 | 46 | 15 | <2.0 | <5 | <5 | <5 | >10.00 | 15,845 | <25 | 275 | 69 | 109 | <20 | <20 |
| 4079 | | | | | | <0.5 | 1,194 | 3 | 272 | 1 | 6 | <1 | <2.0 | <5 | 32 | <5 | 1.35 | 399 | <25 | 118 | 244 | 12 | <20 | <20 |
| 4080 | | | | | | 0.8 | 23 | 7 | 305 | 11 | 49 | 6 | 18.8 | <5 | 54 | <5 | 0.44 | 187 | <25 | 283 | 104 | 307 | <20 | <20 |
| 4081 | | | | | | <0.5 | 38 | 7 | 82 | 41 | 33 | 3 | (2.0) | <5 | 28 | 8 | 1.04 | 56 | <25 | 1,063 | 339 | 77 | <20 | <20 |
| 4082 | | | | | | 0.7 | 56 | 5 | 96 | 18 | 23 | 3 | <2.0 | 6 | 18 | 9 | 3.37 | 48 | <25 | >2,000 | 254 | 73 | <20 | <20 |
| 4083 | | | | | | <0.5 | 122 | 7 | 126 | 7 | 34 | 9 | <2.0 | 8 | 39 | 6 | 2.01 | 9,126 | <25 | 1,817 | 143 | 46 | <20 | 20 |
| 4084 | | | | | | <0.5 | 4 | 3 | 65 | 6 | 15 | 1 | <2.0 | <5 | <5 | <5 | 0.66 | 1,716 | <25 | 166 | 173 | 16 | <20 | <20 |
| 4085 | | | | | | 0.9 | 25 | 15 | 241 | 4 | 78 | 34 | <2.0 | <5 | <5 | <5 | >10.00 | 4,098 | <25 | 125 | 42 | 46 | 42 | 23 |
| 4086 | | | | | | 0.8 | 51 | 3444 | 2,304 | 5 | 29 | 4 | 3.9 | <5 | 17 | 14 | 4.59 | 1,228 | <25 | 359 | 160 | 80 | <20 | <20 |
| 4087 | | | | | | 0.9 | 41 | 47 | 1,601 | 10 | 82 | 21 | <2.0 | 30 | 55 | <5 | >10.00 | 7,327 | <25 | 226 | 72 | 49 | 46 | <20 |
| 4088 | | | | | | <0.5 | 19 | 9 | 360 | 1 | 61 | 13 | <2.0 | <5 | <5 | <5 | >10.00 | 4,294 | <25 | 240 | 159 | 72 | <20 | <20 |
| 4089 | | | | | | <0.5 | 37 | 25 | 3,230 | 3 | 122 | 38 | 33.8 | <5 | 34 | <5 | >10.00 | 7,487 | <25 | 283 | 70 | 40 | <20 | <20 |
| 4090 | | | | | | <0.5 | 18 | <2 | 103 | 6 | 30 | 2 | <2.0 | <5 | 18 | <5 | 2.66 | 284 | <25 | 813 | 449 | 83 | <20 | <20 |
| 4091 | | | | | | <0.5 | 252 | <2 | 210 | 3 | 45 | 40 | <2.0 | 14 | 33 | 6 | >10.00 | 1,400 | <25 | 912 | 46 | 517 | <20 | <20 |
| 4092 | | | | | | <0.5 | 136 | <2 | 134 | 5 | 87 | 36 | <2.0 | 18 | 29 | 8 | 7.20 | 1,146 | <25 | 1,526 | 154 | 282 | 24 | <20 |
| 4093 | | | | | | <0.5 | 38 | <2 | 175 | <1 | 27 | 12 | <2.0 | <5 | 29 | <5 | 3.90 | 982 | <25 | >2,000 | 126 | 152 | <20 | 45 |
| 4094 | | | | | | <0.5 | 174 | <2 | 159 | 1 | 54 | 39 | <2.0 | 14 | 34 | <5 | 8.35 | 1,394 | <25 | >2,000 | 65 | 324 | <20 | <20 |
| 4095 | | | | | | 0.7 | 6 | <2 | 73 | 2 | 10 | <1 | <2.0 | 6 | 35 | 11 | 0.24 | 77 | <25 | 338 | 194 | 15 | <20 | <20 |
| 4096 | | | | | | <0.5 | 55 | <2 | 104 | 3 | 149 | 25 | <2.0 | 14 | 43 | <5 | 4.49 | 2,192 | <25 | 1,110 | 454 | 190 | <20 | <20 |
| 4097 | | | | | | <0.5 | 51 | <2 | 81 | 1 | 72 | 17 | <2.0 | <5 | 12 | <5 | 4.30 | 1,342 | <25 | 840 | 294 | 169 | <20 | <20 |
| 4098 | | | | | | 0.6 | 195 | <2 | 134 | 3 | 51 | 34 | <2.0 | 26 | 50 | <5 | 7.95 | 1,364 | <25 | >2,000 | 71 | 349 | 25 | <20 |
| 4099 | | | | | | <0.5 | 184 | <2 | 163 | 3 | 65 | 36 | <2.0 | 15 | 19 | <5 | 8.75 | 1,421 | <25 | 1,142 | 101 | 387 | <20 | <20 |
| 4100 | | | | | | <0.5 | 33 | <2 | 54 | 1 | 43 | 10 | <2.0 | <5 | 16 | 8 | 3.10 | 737 | <25 | 233 | 158 | 92 | <20 | <20 |
| 4101 | | | | | | <0.5 | 14 | <2 | 72 | 2 | 108 | 37 | <2.0 | <5 | 28 | <5 | >10.00 | 8,381 | <25 | 171 | 129 | 79 | <20 | <20 |
| 4102 | | | | | | <0.5 | 29 | <2 | 69 | 3 | 92 | 28 | <2.0 | <5 | 8 | <5 | >10.00 | 7,381 | <25 | 203 | 149 | 86 | <20 | <20 |
| 4103 | | | | | | <0.5 | 6 | <2 | 46 | <1 | 32 | 10 | <2.0 | 17 | 25 | <5 | 7.07 | 2,496 | <25 | 105 | 97 | 66 | <20 | <20 |
| 4104 | | | | | | <0.5 | 44 | 67 | 247 | 10 | 121 | 51 | <2.0 | <5 | 224 | 78 | >10.00 | 2,298 | <25 | 116 | 14,026 | 380 | <20 | <20 |
| 4105 | | | | | | <0.5 | 42 | 46 | 278 | 5 | 91 | 32 | <2.0 | <5 | 93 | 8 | 6.54 | 2,610 | <25 | 1,461 | 1,379 | 246 | <20 | <20 |
| 4106 | | | | | | <0.5 | 86 | 36 | 221 | 5 | 92 | 33 | <2.0 | 7 | 37 | <5 | 5.46 | 7,235 | <25 | >2,000 | 976 | 245 | <20 | <20 |
| 4107 | | | | | | <0.5 | 69 | 25 | 142 | 4 | 90 | 25 | <2.0 | 7 | <5 | <5 | 5.55 | 7,133 | <25 | >2,000 | 1,872 | 255 | <20 | <20 |
| 4108 | | | | | | <0.5 | 66 | 30 | 130 | 3 | 91 | 22 | <2.0 | 6 | 38 | 10 | 5.14 | 2,649 | <25 | >2,000 | 373 | 209 | <20 | <20 |
| 4109 | | | | | | <0.5 | 56 | <2 | 117 | <1 | 113 | 23 | <2.0 | 10 | 37 | <5 | 5.18 | 1,088 | <25 | 1,665 | 407 | 198 | <20 | <20 |
| 4110 | | | | | | <0.5 | 60 | <2 | 121 | 32 | 112 | 21 | <2.0 | <5 | 23 | <5 | 3.98 | 1,314 | <25 | 540 | 254 | 173 | <20 | <20 |
| 4111 | | | | | | 4.4 | 93 | 13 | 36 | 7 | 36 | 27 | <2.0 | 54 | 27 | <5 | 2.36 | >20,000 | <25 | >2,000 | 39 | 71 | <20 | <20 |
| 4112 | | | | | | <0.5 | 20 | <2 | 55 | 5 | 32 | 17 | <2.0 | <5 | 71 | <5 | 4.87 | 5,002 | <25 | 157 | 92 | 88 | <20 | <20 |
| 4113 | | | | | | 0.8 | 25 | <2 | 492 | 5 | 34 | 16 | <2.0 | 17 | 52 | 7 | 5.80 | 3,090 | <25 | 140 | 92 | 77 | <20 | <20 |
| 4114 | | | | | | 0.7 | 20 | <2 | 320 | 3 | 8 | <1 | 3.9 | <5 | 18 | <5 | 1.35 | 58 | <25 | 136 | 406 | 36 | <20 | <20 |
| 4115 | <0.0100 | 0.0700 | | | | 6.1 | 13 | 153 | 637 | 1 | 62 | 17 | <2.0 | <5 | <5 | <5 | >10.00 | 6,465 | <25 | 158 | 157 | 88 | <20 | <20 |
| 4116 | 31.4000 | 23.9400 | | | | >50.0 | 430 | >10,000 | >20,000 | 154 | 14 | 42 | 1,404.1 | 135 | 104 | 1344 | 3.35 | 161 | <25 | 11 | 85 | 3 | 93 | <20 |
| 4117 | | | | | | 2.5 | 46 | 279 | 558 | 1 | 13 | 4 | 4.5 | 6 | 26 | <5 | 1.27 | 88 | <25 | 52 | 240 | 21 | <20 | <20 |

APPENDIX. 1990–1991 CMD Sample Analytical Results

| Sample no. | Pb % | Zn % | Ba % | Cr % | Mn % | Ag ppm | Cu ppm | Pb ppm | Zn ppm | Mo ppm | Ni ppm | Co ppm | Cd ppm | Bi ppm | As ppm | Sb ppm | Fe % | Mn ppm | Te ppm | Ba ppm | Cr ppm | V ppm | Sn ppm | W ppm |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4118 | | | | | | 1.3 | 4 | 105 | 87 | <1 | 6 | <1 | <2.0 | <5 | 16 | <5 | 0.32 | 30 | <25 | 74 | 233 | 26 | <20 | <20 |
| 4119 | | | | | | <0.5 | 7 | <2 | 37 | 2 | 19 | 3 | <2.0 | <5 | 6 | <5 | 3.15 | 752 | <25 | 179 | 195 | 36 | <20 | <20 |
| 4120 | | | | | | <0.5 | 2 | <2 | 35 | 1 | 45 | 10 | <2.0 | <5 | <5 | <5 | >10.00 | 7,370 | <25 | 65 | 187 | 33 | <20 | <20 |
| 4121 | | | | | | <0.5 | 387 | <2 | 168 | 1 | 18 | 36 | <2.0 | <5 | <5 | <5 | >10.00 | 1,970 | <25 | 1,597 | 40 | 480 | <20 | <20 |
| 4122 | | | | | | <0.5 | 35 | <2 | 36 | 6 | 16 | <1 | <2.0 | <5 | 20 | <5 | 1.62 | 223 | <25 | 430 | 246 | 23 | <20 | <20 |
| 4123 | | | | | | <0.5 | 66 | <2 | 54 | 2 | 27 | 3 | <2.0 | <5 | 8 | <5 | 0.66 | 1,289 | <25 | 1,756 | 309 | 34 | <20 | <20 |
| 4124 | | | | | | 0.7 | 24 | 4 | 107 | 24 | 22 | <1 | 3.0 | <5 | 38 | <5 | 1.00 | 323 | <25 | 133 | 428 | 19 | <20 | <20 |
| 4125 | | | 53.98 | | | <0.5 | 6 | <2 | 31 | 2 | 3 | <1 | <2.0 | <5 | 12 | <5 | 0.36 | 23 | <25 | 432 | 10 | 41 | <20 | <20 |
| 4126 | | | | | | <0.5 | 12 | <2 | 54 | <1 | 20 | 2 | <2.0 | <5 | <5 | <5 | 2.58 | 39 | <25 | 227 | 297 | 44 | <20 | <20 |
| 4127 | | | | | | <0.5 | 8 | 4 | 35 | <1 | 9 | 1 | <2.0 | <5 | 17 | <5 | 0.81 | 88 | <25 | 501 | 268 | 30 | <20 | <20 |
| 4128 | 39.8900 | 0.1000 | | | | >50.0 | 875 | >10,000 | 906 | 77 | 35 | 5 | 7.0 | <5 | 26 | 290 | 0.57 | 50 | <25 | 45 | 282 | 15 | 22 | <20 |
| 4129 | 6.6500 | 0.0300 | | | | >50.0 | 437 | >10,000 | 300 | 5 | 7 | <1 | 2.3 | <5 | 7 | 66 | 0.45 | 51 | <25 | 118 | 347 | 25 | <20 | <20 |
| 4130 | 3.4700 | <0.0100 | | | | 32.0 | 27 | >10,000 | 38 | 1 | 11 | <1 | <2.0 | <5 | <5 | 29 | 0.48 | 61 | <25 | 48 | 348 | 5 | <20 | <20 |
| 4131 | 0.0500 | 0.0100 | | | | 0.7 | 9 | 302 | 75 | 8 | 18 | 3 | <2.0 | <5 | 17 | <5 | 1.52 | 329 | <25 | 200 | 257 | 41 | <20 | <20 |
| 4132 | | | | | | <0.5 | 8 | 164 | 42 | 3 | 20 | 33 | <2.0 | <5 | 15 | <5 | 1.76 | 159 | <25 | 186 | 294 | 44 | <20 | <20 |
| 4133 | | | | | | 0.7 | 11 | 9 | 21 | 2 | 17 | 1 | <2.0 | <5 | 44 | <5 | 2.77 | 294 | <25 | 122 | 241 | 81 | <20 | <20 |
| 4134 | <0.0100 | <0.0100 | | | | 0.8 | 473 | <2 | 51 | <1 | 16 | 6 | <2.0 | 11 | 30 | <5 | 4.25 | 3,510 | <25 | 244 | 191 | 49 | <20 | <20 |
| 4135 | 0.2600 | 24.0400 | | | | 24.1 | 2,303 | 2969 | >20,000 | 175 | 10 | 45 | 1,305.4 | 152 | 618 | 153 | 4.64 | 111 | 105 | 22 | 215 | 6 | 130 | <20 |
| 4136 | 1.5500 | 5.4300 | | | | 42.2 | 819 | >10,000 | >20,000 | 46 | 59 | 352 | 339.0 | 48 | 1968 | 187 | >10.00 | 153 | <25 | 29 | 212 | <2 | 51 | <20 |
| 4137 | 0.6300 | 2.6700 | | | | 47.5 | 133 | 6126 | >20,000 | 23 | 12 | 11 | 206.9 | 24 | 393 | 42 | 1.22 | 103 | <25 | 57 | 313 | 19 | 25 | <20 |
| 4138 | 1.9500 | 7.0500 | | | | 33.9 | 1,627 | >10,000 | >20,000 | 114 | 122 | 405 | 418.6 | 72 | 1517 | 174 | >10.00 | 268 | <25 | 23 | 256 | 6 | 61 | <20 |
| 4139 | 8.9300 | 11.7000 | | | | >50.0 | 667 | >10,000 | >20,000 | 110 | 10 | 6 | 840.0 | 93 | 135 | 161 | 2.21 | 60 | <25 | 18 | 286 | 6 | 66 | <20 |
| 4140 | 0.2000 | <0.0100 | | | | 0.9 | 40 | 1585 | 125 | 2 | 7 | 2 | <2.0 | <5 | 104 | 5 | 0.40 | 31 | <25 | 48 | 220 | 21 | <20 | <20 |
| 4141 | | | | | | 0.6 | 88 | 201 | 601 | 9 | 35 | 31 | <2.0 | 6 | 33 | <5 | >10.00 | 1,517 | <25 | 160 | 47 | 406 | <20 | <20 |
| 4142 | | | | | | 1.5 | 14 | 401 | 506 | 6 | 17 | <1 | 5.1 | <5 | 23 | <5 | 1.44 | 68 | <25 | 101 | 366 | 46 | <20 | <20 |
| 4143 | | | | | | <0.5 | 17 | 43 | 95 | 8 | 29 | 6 | <2.0 | <5 | 30 | 6 | >10.00 | 75 | <25 | 58 | 316 | 32 | <20 | <20 |
| 4144 | | | | | | <0.5 | 33 | <2 | 124 | 2 | 37 | 14 | <2.0 | <5 | <5 | <5 | 4.59 | 491 | <25 | 245 | 182 | 96 | <20 | <20 |
| 4145 | 0.1800 | 3.0800 | | | | 5.6 | 51 | 1674 | >20,000 | 41 | 22 | 4 | 183.2 | 33 | 150 | 44 | 1.69 | 244 | <25 | 121 | 214 | 100 | 35 | <20 |
| 4146 | 2.8500 | 2.8700 | | | | >50.0 | 3,088 | >10,000 | >20,000 | 35 | 31 | 164 | 243.0 | 44 | 1274 | 211 | 2.77 | 33 | <25 | 54 | 253 | 32 | 43 | <20 |
| 4147 | | | | | | | | | | | | | | | | | | | | | | | | |
| 4148 | 0.1800 | 0.0900 | | | | 3.7 | 169 | 1699 | 791 | <1 | 15 | 8 | 4.3 | <5 | 135 | 16 | 1.76 | 82 | <25 | 117 | 334 | 73 | <20 | <20 |
| 4149 | 2.8000 | 1.9600 | | | | >50.0 | 510 | >10,000 | 18,415 | 18 | 8 | <1 | 169.2 | 16 | 211 | 439 | 1.28 | 30 | <25 | 86 | 305 | 62 | <20 | <20 |
| 4150 | 56.9300 | 9.8000 | | | | >50.0 | 1,056 | >10,000 | >20,000 | 108 | 5 | 9 | 876.8 | 89 | 78 | 466 | 1.75 | 13 | <25 | <5 | 78 | 3 | 84 | <20 |
| 4151 | 1.4000 | 12.1400 | | | | 46.6 | 82 | >10,000 | >20,000 | 114 | 9 | 3 | 555.5 | 88 | 128 | 113 | 2.20 | 30 | <25 | 15 | 320 | 4 | 38 | <20 |
| 4152 | 0.9200 | 10.4400 | | | | 32.5 | 115 | 8962 | >20,000 | 122 | 19 | 10 | 776.0 | 73 | 89 | 96 | 2.05 | 45 | <25 | 35 | 385 | 21 | 59 | <20 |
| 4153 | 0.6200 | 2.5100 | | | | 6.9 | 49 | 5838 | >20,000 | 38 | 729 | 138 | 167.7 | 24 | 1237 | 215 | 1.85 | 711 | <25 | 78 | 373 | 29 | <20 | <20 |
| 4154 | 0.1000 | 2.7900 | | | | 3.2 | 89 | 850 | >20,000 | 27 | 1161 | 198 | 205.6 | 26 | 1741 | 224 | 8.87 | 4,370 | <25 | 91 | 245 | 25 | 27 | <20 |
| 4155 | 0.7500 | 5.6900 | | | | 5.5 | 5,260 | 6333 | >20,000 | 45 | 90 | 69 | 517.1 | <5 | 186 | 37 | 2.38 | 96 | <25 | 25 | 192 | 27 | 44 | <20 |
| 4156 | 25.3900 | 0.0700 | | | | >50.0 | 719 | >10,000 | 712 | <1 | 5 | 17 | 6.6 | <5 | 206 | 275 | 1.53 | 418 | <25 | 14 | 192 | 14 | 21 | <20 |
| 4157 | 7.2600 | 9.3100 | | | | >50.0 | 785 | >10,000 | >20,000 | 68 | 12 | 10 | 685.1 | <5 | 153 | 323 | 1.59 | 123 | <25 | 5 | 309 | <2 | 42 | <20 |
| 4158 | 3.3000 | 0.1700 | | | | 35.7 | 915 | >10,000 | 1,524 | 1 | 28 | 89 | 7.6 | <5 | 752 | 216 | 0.70 | 33 | <25 | 21 | 318 | 5 | 21 | <20 |
| 4159 | 1.6400 | 4.9600 | | | | 2.9 | 163 | >10,000 | >20,000 | 41 | 6 | 23 | 287.9 | <5 | 20 | 25 | 6.21 | 11,844 | <25 | 29 | 33 | 27 | 21 | <20 |
| 4160 | 0.0400 | 0.0100 | | | | 2.9 | 11 | 399 | 266 | <1 | 4 | <1 | <2.0 | <5 | 36 | <5 | 0.41 | 68 | <25 | 139 | 337 | 38 | <20 | <20 |
| 4161 | 0.0400 | 0.0800 | | | | <0.5 | 947 | 294 | 740 | 2 | 18 | 13 | 2.4 | <5 | <5 | <5 | 6.41 | 4,354 | <25 | 302 | 56 | 38 | <20 | <20 |
| 4162 | | | | | 2.96 | <0.5 | 22 | 55 | 308 | 2 | 50 | 21 | <2.0 | <5 | <5 | <5 | >10.00 | >20,000 | <25 | 527 | 71 | 89 | <20 | <20 |
| 4163 | 1.4900 | 0.2900 | | | | 6.3 | 7,845 | >10,000 | 2,605 | 3 | 105 | 47 | 11.0 | <5 | 212 | 15 | 0.88 | 238 | <25 | 145 | 212 | 15 | <20 | <20 |
| 4164 | | | | | | | | | | | | | | | | | | | | | | | | |
| 4165 | <0.0100 | 0.0100 | | | | <0.5 | 96 | 55 | 183 | <1 | 20 | 8 | <2.0 | <5 | 43 | <5 | 0.89 | 825 | <25 | 85 | 218 | 24 | <20 | <20 |
| 4166 | 0.2900 | 0.0700 | | | | <0.5 | 2,170 | 2482 | 735 | <1 | 2454 | 816 | <2.0 | <5 | 998 | 106 | 4.57 | 5,017 | <25 | 91 | 94 | 42 | <20 | <20 |
| 4167 | <0.0100 | <0.0100 | | | | <0.5 | 2,315 | 21 | 23 | <1 | 41 | 24 | <2.0 | <5 | 50 | <5 | 0.70 | 158 | <25 | 55 | 250 | 36 | <20 | <20 |
| 4168 | <0.0100 | <0.0100 | | | | <0.5 | 378 | 35 | 22 | 7 | 47 | 35 | <2.0 | <5 | 98 | <5 | 0.72 | 173 | <25 | 45 | 240 | 36 | <20 | <20 |
| 4169 | <0.0100 | <0.0100 | | | | <0.5 | 1,455 | 13 | 14 | 2 | 10 | 5 | <2.0 | <5 | 142 | <5 | 0.58 | 29 | <25 | 57 | 321 | 31 | <20 | <20 |
| 4170 | <0.0100 | <0.0100 | | | | 1.2 | 4,075 | 15 | 15 | <1 | 24 | 21 | <2.0 | <5 | 62 | <5 | 0.72 | 82 | <25 | 23 | 243 | 14 | <20 | <20 |
| 4171 | <0.0100 | 2.2000 | | | | 1.7 | 3,589 | 43 | 19,935 | 20 | 45 | 19 | 184.2 | <5 | 94 | 9 | 0.93 | 31 | <25 | 43 | 336 | 20 | <20 | <20 |
| 4172 | 0.4400 | 10.8900 | | | | 8.2 | 12,213 | 3281 | >20,000 | 80 | 202 | 95 | 1,167.2 | <5 | 110 | 54 | 2.60 | 37 | <25 | 9 | 260 | 3 | 83 | <20 |
| 4173 | 0.0300 | 22.0100 | | | | 5.7 | >20,000 | 303 | >20,000 | 173 | 113 | 115 | >2,000.0 | <5 | 176 | 58 | 6.08 | 23 | <25 | 12 | 193 | 7 | 140 | <20 |
| 4174 | 0.3400 | 5.5400 | | | | 6.2 | 431 | 2902 | >20,000 | 61 | 11 | 16 | 295.6 | <5 | 96 | 27 | 0.89 | 32 | <25 | 117 | 356 | 19 | 48 | <20 |
| 4175 | <0.0100 | 0.0400 | | | | <0.5 | 46 | 33 | 428 | 10 | 72 | 21 | <2.0 | <5 | <5 | <5 | >10.00 | 4,138 | <25 | 1,089 | 71 | 60 | <20 | <20 |

APPENDIX. 1990–1991 CMD Sample Analytical Results

| Sample no. | Pb % | Zn % | Ba % | Cr % | Mn % | Ag ppm | Cu ppm | Pb ppm | Zn ppm | Mo ppm | Ni ppm | Co ppm | Cd ppm | Bi ppm | As ppm | Sb ppm | Fe % | Mn ppm | Te ppm | Ba ppm | Cr ppm | V ppm | Sn ppm | W ppm |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4176 | 0.1600 | 0.0300 | | | | <0.5 | 52 | 1561 | 297 | 3 | 5 | <1 | <2.0 | <5 | <5 | <5 | 0.47 | 40 | <25 | 51 | 257 | 25 | <20 | <20 |
| 4177 | <0.0100 | <0.0100 | | | | <0.5 | 333 | 10 | 174 | 3 | 9 | 4 | <2.0 | <5 | 10 | <5 | 0.66 | 79 | <25 | 122 | 268 | 34 | <20 | <20 |
| 4178 | 1.0900 | <0.0100 | | | | 10.8 | 45 | 8227 | 49 | <1 | 10 | 4 | <2.0 | <5 | 76 | 8 | 0.33 | 25 | <25 | 21 | 265 | 8 | <20 | <20 |
| 4179 | <0.0100 | 0.2000 | | | | <0.5 | 1,213 | 29 | 1,831 | 3 | 99 | 53 | 9.1 | <5 | 22 | <5 | 0.35 | 174 | <25 | 74 | 240 | 34 | <20 | <20 |
| 4180 | | | | | | <0.5 | 25 | 41 | 128 | <1 | 31 | 11 | <2.0 | <5 | <5 | <5 | 5.71 | 1,967 | <25 | 75 | 39 | 37 | <20 | <20 |
| 4181 | 0.1000 | 0.5700 | | | | 5.0 | 5,342 | 923 | 5,457 | 7 | 9 | 6 | 31.1 | <5 | 70 | <5 | 1.03 | 32 | <25 | 67 | 364 | 11 | <20 | <20 |
| 4182 | 8.9900 | 1.0000 | | | | >50.0 | 240 | >10,000 | 9,337 | 9 | 21 | 5 | 53.9 | <5 | 91 | 105 | 0.37 | 31 | <25 | 49 | 171 | 42 | <20 | <20 |
| 4183 | 0.0100 | <0.0100 | | | | >50.0 | >20,000 | 160 | 53 | <1 | 148 | 18 | <2.0 | <5 | 61 | <5 | 9.84 | 22 | <25 | 10 | 346 | 3 | 88 | <20 |
| 4184 | 0.1700 | 0.0400 | | | | 0.9 | 325 | 1453 | 419 | <1 | 8 | 3 | 4.5 | <5 | 10 | <5 | 0.52 | 39 | <25 | 67 | 336 | 13 | <20 | <20 |
| 4185 | | | | | | 1.9 | 316 | 17 | 19 | 6 | 37 | 14 | <2.0 | <5 | 77 | 30 | 2.22 | 583 | <25 | 56 | 325 | 91 | 30 | <20 |
| 4186 | <0.0100 | 0.0100 | | | | <0.5 | 835 | <2 | 35 | 3 | 23 | 18 | <2.0 | <5 | <5 | <5 | 8.85 | 13,006 | <25 | 108 | 28 | 58 | <20 | <20 |
| 4187 | <0.0100 | <0.0100 | | | | <0.5 | 1,514 | <2 | 18 | 2 | 28 | 14 | <2.0 | <5 | 56 | 13 | 0.77 | 97 | <25 | 29 | 419 | 16 | <20 | <20 |
| 4188 | 0.8400 | 0.5100 | | | | 10.2 | 30 | 8684 | >20,000 | 67 | 6 | 18 | 270.8 | <5 | 123 | 67 | 0.90 | 43 | <25 | 24 | 524 | 11 | <20 | <20 |
| 4189 | | | | | | 0.8 | 37 | 574 | 1,604 | 10 | 105 | 60 | 5.3 | <5 | 82 | 31 | 8.91 | 4,772 | <25 | 263 | 188 | 96 | 30 | <20 |
| 4190 | | | | | | 0.8 | 30 | <2 | 32 | 20 | 32 | 7 | <2.0 | <5 | 74 | 12 | 1.81 | 108 | <25 | >2,000 | 107 | 67 | <20 | <20 |
| 4191 | | | | | | 4.7 | 1,546 | 17 | 166 | 14 | 104 | 74 | <2.0 | <5 | 77 | 20 | 5.73 | >20,000 | <25 | >2,000 | 131 | 103 | <20 | <20 |
| 4192 | | | | | | 0.8 | 10 | <2 | <2 | <1 | 40 | 11 | <2.0 | <5 | <5 | <5 | 3.34 | 342 | <25 | 34 | 307 | 47 | <20 | <20 |
| 4193 | | | | | | >50.0 | 847 | >10,000 | 631 | <1 | 9 | 23 | 5.9 | <5 | 262 | 403 | 2.74 | 3,046 | <25 | 48 | 16 | 29 | <20 | <20 |
| 4194 | 15.3700 | 0.0700 | | | | 8.5 | 6,430 | 807 | 272 | <1 | 709 | 59 | <2.0 | <5 | 532 | 17 | 8.54 | 370 | <25 | 26 | 339 | 37 | <20 | <20 |
| 4195 | 0.0800 | 0.0300 | | | | 12.5 | 112 | 2695 | >20,000 | 78 | 25 | 14 | 338.9 | <5 | 88 | 55 | 2.70 | 1,255 | <25 | 38 | 216 | 11 | <20 | <20 |
| 4196 | 0.2500 | 7.7200 | | | | >50.0 | 31 | >10,000 | 397 | <1 | 28 | 5 | 2.9 | <5 | 116 | 13 | 0.57 | 119 | <25 | 39 | 347 | 17 | <20 | <20 |
| 4197 | 3.6100 | 0.0300 | | | | 2.1 | 2,729 | 133 | 754 | <1 | 96 | 46 | 6.3 | <5 | 146 | <5 | 1.20 | 67 | <25 | 11 | 360 | <2 | <20 | <20 |
| 4198 | 0.0100 | 0.0800 | | | | <0.5 | 26 | 22 | 177 | 4 | 32 | 3 | <2.0 | <5 | 54 | 23 | 0.55 | 37 | <25 | 433 | 197 | 150 | <20 | <20 |
| 4199 | <0.0100 | 0.0300 | | | | <0.5 | 14 | 10 | 265 | 2 | 47 | 20 | <2.0 | <5 | <5 | <5 | >10.00 | 5,217 | <25 | 322 | 108 | 52 | <20 | <20 |
| 4200 | <0.0100 | <0.0100 | | | | 0.6 | 5,236 | <2 | 26 | 3 | 151 | 131 | <2.0 | <5 | 182 | 7 | 1.12 | 214 | <25 | 47 | 386 | 31 | <20 | <20 |
| 4201 | <0.0100 | 0.5700 | | | | 2.5 | 1,020 | 23 | 5,880 | 7 | 23 | 24 | 34.7 | <5 | 59 | <5 | 1.30 | 152 | <25 | 42 | 353 | 16 | <20 | <20 |
| 4202 | 0.6000 | 1.9800 | | | | 5.1 | 64 | 6438 | >20,000 | 32 | 14 | 9 | 83.4 | <5 | 111 | 39 | 1.59 | 35 | <25 | 46 | 472 | 34 | <20 | <20 |
| 4203 | 0.1800 | 0.2800 | | | | 1.6 | 23 | 1909 | 3,049 | 9 | 6 | 2 | 9.6 | <5 | 49 | 26 | 1.04 | 50 | <25 | 98 | 460 | 32 | <20 | <20 |
| 4204 | | | | | | <0.5 | 95 | 41 | 234 | 13 | 102 | 46 | <2.0 | <5 | 23 | 32 | >10.00 | 15,225 | <25 | 846 | 95 | 82 | 42 | <20 |
| 4205 | 0.3300 | 7.2600 | | | | 5.8 | 173 | 3488 | >20,000 | 87 | 30 | 60 | 639.4 | <5 | 225 | 70 | 1.32 | 78 | <25 | 25 | 437 | 7 | 61 | <20 |
| 4206 | | | | | 0.56 | <0.5 | 9 | 18 | 171 | 9 | 102 | 45 | <2.0 | <5 | 82 | 36 | >10.00 | 5,332 | <25 | 167 | 135 | 96 | 45 | <20 |
| 4207 | | | 0.02 | | | 1.1 | 198 | 35 | 218 | <1 | 34 | 15 | <2.0 | <5 | 69 | 25 | 4.12 | 635 | <25 | 125 | 272 | 104 | 27 | <20 |
| 4208 | | | | | | 1.1 | 53 | 50 | 46 | <1 | 53 | 9 | <2.0 | <5 | <5 | <5 | 2.16 | 295 | <25 | 1,406 | 83 | 67 | <20 | <20 |
| 4209 | | | 0.02 | | | 2.6 | 33 | 4 | <2 | 8 | 38 | 10 | <2.0 | <5 | <5 | <5 | >10.00 | 152 | <25 | 70 | 312 | 23 | <20 | <20 |
| 4210 | 0.1800 | 4.7300 | | | | 5.8 | 2,266 | 1840 | >20,000 | 65 | 19 | 15 | 235.4 | <5 | 100 | 41 | 1.17 | <5 | <25 | 40 | 287 | 13 | <20 | <20 |
| 4211 | 0.0200 | 0.0100 | | | | 1.0 | 14 | 64 | 127 | <1 | 29 | 10 | <2.0 | <5 | 30 | 12 | 3.51 | 842 | <25 | 19 | 320 | 12 | <20 | <20 |
| 4212 | | | | | | | | | | | | | | | | | | | | | | | | |
| 4213 | <0.0100 | 0.0200 | | | | 2.2 | 194 | 6 | 73 | 6 | 26 | 18 | <2.0 | <5 | 89 | 30 | 8.78 | 2,838 | <25 | 172 | 79 | 52 | <20 | <20 |
| 4214 | 0.0400 | 0.0200 | | | | <0.5 | 36 | 222 | 100 | <1 | 29 | 12 | <2.0 | <5 | <5 | <5 | 4.40 | 1,589 | <25 | 111 | 293 | 37 | <20 | <20 |
| 4216 | | | | | | 0.9 | 12 | 35 | 14 | <1 | 13 | 3 | <2.0 | <5 | 13 | 5 | 1.60 | 63 | <25 | 115 | 308 | 50 | <20 | <20 |
| 4217 | 3.4100 | 0.1100 | | | | 49.8 | 50 | >10,000 | 1,214 | <1 | 37 | 8 | 10.6 | <5 | 136 | 26 | 0.60 | 615 | <25 | 30 | 300 | 19 | <20 | <20 |
| 4218 | 2.4400 | 1.1400 | | | | 39.9 | 189 | >10,000 | 11,292 | 15 | 19 | 16 | 62.2 | <5 | 66 | 35 | 0.44 | 227 | <25 | 26 | 233 | 29 | <20 | <20 |
| 4219 | | | | | | 4.0 | 72 | 97 | 365 | 31 | 84 | 6 | 42.4 | <5 | 41 | 15 | 0.29 | 51 | <25 | 403 | 206 | 673 | <20 | <20 |
| 4220 | <0.0100 | <0.0100 | | | | 0.5 | 1,947 | 12 | 39 | <1 | 15 | 11 | <2.0 | <5 | <5 | 5 | 1.04 | 287 | <25 | 37 | 349 | 15 | <20 | <20 |
| 4221 | <0.0100 | <0.0100 | | | | 2.2 | 980 | 21 | 31 | <1 | 81 | 17 | <2.0 | <5 | 26 | 34 | 4.81 | 368 | <25 | 160 | 857 | 251 | <20 | <20 |
| 4222 | 0.0600 | 0.4000 | | | | 7.1 | >20,000 | 545 | 3,881 | 6 | 35 | 22 | 18.7 | <5 | 64 | 19 | 3.25 | 457 | <25 | 36 | 289 | 22 | <20 | <20 |
| 4223 | 0.0200 | 0.0300 | | | | 1.5 | 1,459 | 132 | 280 | <1 | 28 | 16 | 3.2 | <5 | 76 | <5 | 0.67 | 256 | <25 | 108 | 260 | 72 | <20 | <20 |
| 4224 | <0.0100 | <0.0100 | | | | 0.9 | 378 | <2 | 21 | <1 | 15 | 4 | <2.0 | <5 | 25 | 6 | 0.82 | 202 | <25 | 81 | 345 | 23 | <20 | <20 |
| 4225 | 0.0100 | 0.0200 | | | | 1.0 | 52 | 40 | 202 | <1 | 32 | 10 | <2.0 | <5 | 27 | <5 | 2.51 | 596 | <25 | 42 | 357 | 31 | <20 | <20 |
| 4226 | 0.0200 | 0.0100 | | | | 3.1 | 16,002 | 89 | 23 | <1 | 762 | 263 | <2.0 | <5 | 130 | 13 | 2.88 | <5 | <25 | 45 | 297 | 21 | <20 | <20 |
| 4241 | <0.0100 | 0.0100 | | | | 0.7 | 63 | 24 | 70 | <1 | 26 | 20 | <2.0 | <5 | <5 | 22 | 2.72 | 1,552 | <25 | 213 | 286 | 54 | <20 | <20 |
| 5001 | | | | | | 5.9 | 11 | 425 | 691 | 3 | 8 | −1 | 4 | 7 | −5 | 16 | 0 | 26 | −25 | 845 | 265 | 26 | −20 | −20 |
| 5002 | | | | | | 6.1 | 48 | 1257 | 70 | 38 | 174 | 9 | −2 | −5 | 55 | 29 | 1 | 197 | −25 | 520 | 104 | 100 | −20 | −20 |
| 5003 | | | | | | 22.2 | 52 | 2950 | 167 | 31 | 121 | 6 | −2 | −5 | 68 | 68 | 2 | 73 | −25 | 278 | 121 | 129 | −20 | −20 |
| 5004 | | | | | | 5.5 | 13 | 1294 | 7 | 3 | 19 | 4 | −2 | −5 | −5 | 19 | 1 | 55 | −25 | 350 | 483 | 29 | −20 | −20 |
| 5005 | | | | | | 11.4 | 33 | 2473 | 96 | 23 | 67 | 7 | −2 | −5 | 47 | 51 | 2 | 167 | −25 | 322 | 108 | 165 | −20 | −20 |
| 5006 | | | | | | 5.4 | 9 | 157 | 10 | 4 | 22 | 2 | −2 | 9 | −5 | 12 | 1 | 41 | −25 | 388 | 425 | 34 | −20 | −20 |
| 5007 | | | | | | 7.6 | 33 | 1018 | 65 | 27 | 82 | 8 | −2 | −5 | 56 | 47 | 2 | 130 | −25 | 483 | 147 | 160 | −20 | −20 |

APPENDIX. 1990–1991 CMD Sample Analytical Results

| Sample no. | Pb % | Zn % | Ba % | Cr % | Mn % | Ag ppm | Cu ppm | Pb ppm | Zn ppm | Mo ppm | Ni ppm | Co ppm | Cd ppm | Bi ppm | As ppm | Sb ppm | Fe % | Mn ppm | Te ppm | Ba ppm | Cr ppm | V ppm | Sn ppm | W ppm |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5008 | | | | | | 7.3 | 33 | 932 | 41 | 22 | 43 | 6 | −2 | −5 | 48 | 35 | 2 | 32 | −25 | 404 | 108 | 80 | −20 | −20 |
| 5009 | | | | | | 5.0 | 45 | 684 | 104 | 15 | 31 | 5 | −2 | −5 | 79 | 37 | 1 | 13 | −25 | 842 | 69 | 70 | −20 | −20 |
| 5010 | | | | | | 2.5 | 54 | 727 | 356 | 11 | 53 | 6 | −2 | −5 | 42 | −5 | 1 | 15 | −25 | 1,660 | 68 | 102 | −20 | −20 |
| 5011 | | | | | | <0.5 | 83 | 216 | 416 | 7 | 41 | 7 | −2 | −5 | 22 | −5 | 4 | 72 | −25 | 1,127 | 101 | 80 | −20 | −20 |
| 5012 | | | | | | <0.5 | 60 | 130 | 412 | 5 | 55 | 8 | −2 | −5 | 32 | −5 | 4 | 54 | −25 | 1,600 | 83 | 101 | −20 | −20 |
| 5013 | | | | | | 1.9 | 66 | 282 | 153 | 6 | 35 | 4 | −2 | −5 | −5 | −5 | 1 | 17 | −25 | 1,168 | 74 | 88 | −20 | −20 |
| 5014 | | | | | | 4.7 | 60 | 171 | 33 | 8 | 49 | 3 | −2 | −5 | 38 | 7 | 2 | 6 | −25 | 384 | 128 | 68 | −20 | 50 |
| 5015 | | | | | | 1.6 | 21 | 463 | 148 | 2 | 12 | 4 | −2 | −5 | 9 | 8 | 1 | 106 | −25 | 1,199 | 281 | 53 | −20 | −20 |
| 5016 | | | | | | 4.1 | 26 | 1720 | 92 | 9 | 49 | 7 | −2 | −5 | 52 | 44 | 1 | 196 | −25 | 539 | 36 | 53 | −20 | −20 |
| 5017 | | | | | | 6.4 | 86 | 1397 | 441 | 8 | 22 | 11 | −2 | −5 | 36 | 14 | 2 | 253 | −25 | 1,270 | 49 | 54 | −20 | −20 |
| 5018 | | | | | | 1.9 | 17 | 62 | 170 | 4 | 17 | 7 | −2 | −5 | 27 | −5 | 1 | 168 | −25 | 1,018 | 20 | 38 | −20 | −20 |
| 5019 | | | | | | 1.9 | 16 | 42 | 107 | 11 | 28 | 9 | −2 | −5 | 23 | −5 | 2 | 910 | −25 | 1,161 | 33 | 40 | −20 | −20 |
| 5020 | | | | | | 2.6 | 17 | 8 | 68 | 3 | 20 | 9 | −2 | −5 | 15 | −5 | 0 | 162 | −25 | 959 | 19 | 32 | −20 | −20 |
| 5021 | | | | | | 3.2 | 30 | 197 | 1,500 | 9 | 65 | 13 | −2 | −5 | 37 | −5 | 6 | 1,911 | −25 | 926 | 46 | 57 | −20 | −20 |
| 5022 | | | | | | 3.1 | 78 | 23 | 611 | 15 | 78 | 17 | 10 | −5 | 36 | 12 | 3 | 943 | −25 | 225 | 48 | 76 | −20 | −20 |
| 5023 | | | | | | <0.5 | 38 | 64 | 113 | 9 | 60 | 7 | −2 | −5 | 20 | −5 | 3 | 153 | −25 | 790 | 135 | 101 | −20 | −20 |
| 5024 | | | | | | 1.8 | 55 | −2 | 58 | 26 | 108 | 1 | 2 | −5 | 20 | −5 | 1 | 195 | −25 | 242 | 429 | 113 | −20 | −20 |
| 5025 | | | | | | 8.0 | 86 | 4 | 456 | 20 | 123 | 7 | 5 | −5 | 19 | 11 | 2 | 2,279 | −25 | 1,082 | 327 | 267 | −20 | −20 |
| 5026 | | | | | | 15.6 | 97 | 58 | 350 | 22 | 126 | 8 | 6 | −5 | 9 | 9 | 2 | 1,021 | −25 | 583 | 374 | 310 | −20 | −20 |
| 5027 | | | | | | 26.8 | 141 | 90 | 930 | 29 | 298 | 7 | 11 | −5 | 19 | 19 | 3 | 1,180 | −25 | 227 | 512 | 388 | −20 | −20 |
| 5028 | | | | | | 3.0 | 12 | 19 | 10 | 3 | 32 | 1 | −2 | −5 | −5 | −5 | 0 | 45 | −25 | 213 | 382 | 33 | −20 | −20 |
| 5029 | | | | | | 1.8 | 12 | 25 | (2) | 1 | 15 | 3 | −2 | −5 | −5 | −5 | 0 | 41 | −25 | 253 | 355 | 14 | −20 | −20 |
| 5030 | | | | | | 1.9 | 51 | 95 | 98 | 10 | 52 | 5 | −2 | −5 | 24 | −5 | 3 | 504 | −25 | 1,186 | 99 | 153 | −20 | −20 |
| 5031 | | | | | | 4.8 | 40 | 129 | 45 | 16 | 79 | −1 | −2 | −5 | 25 | 14 | 1 | 22 | −25 | 218 | 346 | 122 | −20 | −20 |
| 5032 | | | | | | 2.2 | 9 | 153 | 11 | 3 | 16 | 3 | −2 | −5 | −5 | 13 | 1 | 41 | −25 | 441 | 415 | 37 | −20 | −20 |
| 5033 | | | | | | 10.1 | 38 | 1001 | 32 | 30 | 42 | −1 | −2 | −5 | 27 | 47 | 2 | 43 | −25 | 107 | 117 | 189 | −20 | −20 |
| 5034 | | | | | | 1.8 | 10 | 197 | 20 | 5 | 12 | 2 | −2 | 6 | −5 | −5 | 1 | 34 | −25 | 412 | 387 | 45 | −20 | −20 |
| 5035 | | | | | | 7.0 | 49 | 157 | 75 | 19 | 40 | −1 | −2 | −5 | 23 | 10 | 2 | 32 | −25 | 740 | 325 | 320 | −20 | −20 |
| 5036 | | | | | | 2.8 | 23 | 639 | 303 | 5 | 14 | 3 | −2 | −5 | −5 | 19 | 1 | 41 | −25 | 495 | 427 | 30 | −20 | −20 |
| 5037 | | | | | | 6.4 | 33 | 632 | 30 | 18 | 36 | −1 | −2 | −5 | 30 | 18 | 2 | 34 | −25 | 392 | 103 | 100 | −20 | −20 |
| 5038 | | | | | | 2.3 | 6 | 286 | 4 | 1 | 6 | 3 | −2 | −5 | −5 | 8 | 0 | 26 | −25 | 662 | 229 | 51 | −20 | −20 |
| 5039 | | | | | | 7.6 | 24 | 3495 | 43 | 19 | 30 | −1 | −2 | 5 | 54 | 43 | 3 | 62 | −25 | 316 | 81 | 99 | −20 | −20 |
| 5040 | | | | | | <0.5 | 5 | 16 | (2) | 1 | 6 | 3 | −2 | −5 | −5 | −5 | 0 | 26 | −25 | 1,842 | 228 | 12 | −20 | −20 |
| 5041 | | | | | | 0.7 | 27 | 107 | 57 | 14 | 9 | −1 | −2 | −5 | 8 | 6 | 3 | 219 | −25 | 2,000 | 50 | 113 | −20 | −20 |
| 5042 | | | | | | <0.5 | 65 | 137 | 45 | −1 | 28 | 18 | −2 | 9 | −5 | −5 | 4 | 543 | −25 | 1,788 | 229 | 151 | −20 | −20 |
| 5043 | | | | | | <0.5 | 206 | 126 | 483 | 5 | 97 | 56 | −2 | −5 | 20 | 18 | 3 | 3,202 | −25 | 998 | 29 | 45 | −20 | −20 |
| 5044 | | | | | | <0.5 | 131 | 10 | 88 | 2 | 46 | 29 | −2 | 15 | −5 | −5 | 7 | 1,015 | −25 | 802 | 170 | 273 | −20 | −20 |
| 5045 | | | | | | <0.5 | 8 | 6 | 73 | 2 | 50 | −1 | −2 | 8 | 17 | 15 | 3 | 2,268 | −25 | 996 | 15 | 22 | −20 | −20 |
| 5046 | | | | | | 0.5 | 30 | 52 | 89 | 9 | 26 | −1 | −2 | 6 | −5 | 7 | 2 | 91 | −25 | 888 | 44 | 78 | −20 | −20 |
| 5047 | | | | | | 1.5 | 42 | 105 | 207 | 10 | 31 | −1 | −2 | 6 | 23 | 15 | 2 | 97 | −25 | 1,134 | 60 | 77 | −20 | −20 |
| 5048 | | | | | | 3.2 | 3 | 160 | 11 | 1 | −1 | −1 | −2 | −5 | −5 | 5 | 0 | 20 | −25 | 791 | 51 | 18 | −20 | −20 |
| 5049 | | | | | | 5.0 | 33 | 276 | 47 | 14 | 7 | −1 | −2 | −5 | 49 | 64 | 5 | 69 | −25 | 211 | 27 | 49 | −20 | −20 |
| 5050 | | | | | | <0.5 | 4 | 77 | (2) | 1 | 1 | −1 | −2 | 6 | 19 | 21 | 0 | 11 | −25 | 109 | 67 | 18 | −20 | −20 |
| 5051 | | | | | | 1.3 | 34 | 89 | 87 | 16 | 10 | −1 | −2 | −5 | 54 | 17 | 4 | 78 | −25 | 338 | 47 | 62 | −20 | −20 |
| 5052 | | | | | | 1.1 | 4 | 32 | (2) | 1 | 1 | 2 | −2 | 7 | 5 | 9 | 0 | 5 | −25 | 417 | 51 | 24 | −20 | −20 |
| 5053 | | | | | | 1.9 | 78 | 142 | 155 | 73 | 51 | 8 | 7 | 6 | 123 | 34 | 3 | 163 | −25 | 361 | 111 | 115 | −20 | −20 |
| 5054 | | | | | | <0.5 | 5 | 24 | 137 | 2 | 6 | 1 | −2 | −5 | 42 | 7 | 0 | 95 | −25 | 627 | 52 | 38 | −20 | −20 |
| 5055 | | | | | | <0.5 | 37 | 70 | 599 | 15 | 57 | 7 | −2 | −5 | 139 | 30 | 5 | 484 | −25 | 441 | 37 | 70 | −20 | −20 |
| 5056 | | | | | | <0.5 | 5 | 15 | 2 | −1 | 1 | −1 | −2 | 8 | −5 | −5 | 0 | 6 | −25 | 493 | 45 | 44 | −20 | −20 |
| 5057 | | | | | | 1.0 | 26 | 101 | 66 | 9 | 9 | −1 | −2 | −5 | 49 | 14 | 2 | 55 | −25 | 427 | 36 | 76 | −20 | −20 |
| 5058 | | | | | | <0.5 | 6 | 96 | 24 | 5 | 2 | −1 | −2 | 10 | −5 | 10 | 0 | 8 | −25 | 488 | 57 | 33 | −20 | −20 |
| 5059 | | | | | | 1.9 | 53 | 522 | 98 | 8 | 11 | −1 | −2 | −5 | 59 | 39 | 10 | 83 | −25 | 217 | 49 | 79 | −20 | −20 |
| 5060 | | | | | | <0.5 | 9 | 41 | 5 | 4 | 7 | 1 | 2 | 11 | 38 | −5 | 0 | 12 | −25 | 265 | 80 | 37 | −20 | −20 |
| 5061 | | | | | | 0.9 | 37 | 359 | 130 | 14 | 6 | −1 | −2 | −5 | 215 | 36 | 5 | 88 | −25 | 176 | 92 | 133 | −20 | −20 |
| 5062 | | | | | | 0.8 | 5 | 209 | (2) | 9 | 3 | −1 | −2 | −5 | −5 | −5 | 0 | 10 | −25 | 1,177 | 51 | 34 | −20 | −20 |
| 5063 | | | | | | 4.2 | 65 | 824 | 158 | 7 | 19 | −1 | −2 | 6 | 28 | 61 | 10 | 44 | −25 | 183 | 38 | 73 | 21 | −20 |
| 5064 | | | | | | <0.5 | 39 | 15 | 463 | 4 | 34 | 2 | −2 | −5 | −5 | −5 | 4 | 498 | −25 | 437 | 41 | 108 | −20 | −20 |
| 5065 | | | | | | <0.5 | 51 | 76 | 327 | 8 | 38 | 13 | −2 | 12 | 46 | 12 | 5 | 523 | −25 | 1,067 | 51 | 134 | −20 | −20 |

| Sample no. | Pb % | Zn % | Ba % | Cr % | Mn % | Ag ppm | Cu ppm | Pb ppm | Zn ppm | Mo ppm | Ni ppm | Co ppm | Cd ppm | Bi ppm | As ppm | Sb ppm | Fe % | Mn ppm | Te ppm | Ba ppm | Cr ppm | V ppm | Sn ppm | W ppm |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5066 | | | | | | <0.5 | 34 | 26 | 148 | 4 | 29 | 2 | −2 | −5 | −5 | 6 | 3 | 569 | −25 | 771 | 45 | 116 | −20 | −20 |
| 5067 | | | | | | 0.7 | 4 | 128 | (2) | 2 | −1 | −1 | −2 | 7 | −5 | −5 | 0 | 6 | −25 | 1,320 | 42 | 13 | −20 | −20 |
| 5068 | | | | | | 1.4 | 35 | 119 | 47 | 7 | 4 | −1 | −2 | 8 | 46 | 14 | 4 | 29 | −25 | 235 | 26 | 33 | −20 | −20 |
| 5069 | | | | | | 1.1 | 7 | 378 | 57 | 4 | 9 | 2 | 3 | −5 | −5 | −5 | 1 | 38 | −25 | 131 | 365 | 13 | −20 | −20 |
| 5070 | | | | | | 24.9 | 76 | 3609 | 239 | 37 | 24 | −1 | −2 | −5 | 202 | 111 | 10 | 120 | −25 | 178 | 103 | 115 | −20 | −20 |
| 5071 | | | | | | 15.8 | 54 | 1015 | 71 | 30 | 25 | −1 | −2 | −5 | 97 | 39 | 5 | 30 | −25 | 320 | 136 | 138 | −20 | −20 |
| 5072 | | | | | | 4.2 | 62 | 1011 | 33 | 18 | 35 | −1 | −2 | −5 | 50 | 12 | 3 | 29 | −25 | 196 | 284 | 154 | −20 | −20 |
| 5073 | | | | | | 13.9 | 290 | 1300 | 30 | 50 | 22 | 1 | −2 | −5 | 10 | 35 | 3 | 51 | −25 | 127 | 97 | 115 | −20 | −20 |
| 5074 | | | | | | 6.0 | 111 | 462 | 24 | 18 | 18 | −1 | −2 | −5 | 10 | 25 | 0 | 55 | −25 | 93 | 53 | 75 | −20 | −20 |
| 5075 | | | | | | 3.1 | 43 | 399 | 12 | 11 | 15 | −1 | −2 | 6 | 15 | 13 | 2 | 26 | −25 | 323 | 66 | 75 | −20 | −20 |
| 5076 | | | | | | <0.5 | 4 | 322 | 162 | 5 | 6 | −1 | −2 | 8 | 21 | 6 | 1 | 157 | −25 | 88 | 42 | 15 | −20 | −20 |
| 5077 | | | | | | 5.3 | 101 | 1439 | 559 | 17 | 25 | 8 | −2 | −5 | 125 | 31 | 6 | 595 | −25 | 339 | 53 | 82 | 25 | −20 |
| 5078 | | | | | | <0.5 | 54 | 49 | 134 | 7 | 15 | 4 | −2 | −5 | 6 | 7 | 3 | 948 | −25 | 866 | 29 | 77 | −20 | −20 |
| 5079 | | | | | | <0.5 | 4 | 14 | 57 | 4 | 3 | 5 | −2 | 12 | −5 | −5 | 2 | 336 | −25 | 944 | 49 | 39 | −20 | −20 |
| 5080 | | | | | | 0.6 | 42 | 72 | 123 | 5 | 20 | 7 | −2 | −5 | −5 | 9 | 3 | 1,109 | −25 | 770 | 44 | 94 | −20 | −20 |
| 5081 | | | | | | <0.5 | 4 | 12 | 102 | 3 | 3 | 6 | −2 | 12 | −5 | −5 | 2 | 549 | −25 | 2,000 | 38 | 41 | −20 | −20 |
| 5082 | | | | | | 0.6 | 80 | 48 | 135 | 35 | 24 | 4 | −2 | −5 | 44 | 14 | 3 | 433 | −25 | 1,051 | 46 | 96 | −20 | −20 |
| 5083 | | | | | | 2.2 | 14 | 175 | 1,159 | 5 | 3 | 1 | 2 | 9 | −5 | 14 | 1 | 15 | −25 | 190 | 104 | 28 | −20 | −20 |
| 5084 | | | | | | 6.5 | 115 | 262 | 5,525 | 23 | 55 | 3 | 2 | −5 | 114 | 51 | 10 | 279 | −25 | 238 | 39 | 67 | 20 | −20 |
| 5085 | 0.2300 | 0.5700 | | | | 8.4 | 15 | 1948 | 4,933 | 8 | 4 | 3 | 20 | 12 | 25 | 27 | 1 | 12 | −25 | 78 | 154 | 19 | −20 | −20 |
| 5086 | | | | | | 20.4 | 56 | 3203 | 1,674 | 30 | 13 | −1 | −2 | −5 | 403 | 107 | 10 | 249 | −25 | 156 | 32 | 59 | −20 | −20 |
| 5087 | | | | | | 21.7 | 121 | 9493 | 234 | 20 | 41 | 2 | −2 | −5 | 39 | 151 | 4 | 234 | −25 | 300 | 98 | 117 | −20 | −20 |
| 5088 | | | | | | 7.0 | 11 | 438 | 1,945 | 5 | 1 | 3 | 8 | 5 | −5 | 22 | 1 | 15 | −25 | 851 | 105 | 26 | −20 | −20 |
| 5089 | | | | | | 6.2 | 11 | 366 | 41 | 1 | 21 | 3 | −2 | 7 | −5 | 18 | 1 | 44 | −25 | 493 | 507 | 36 | −20 | −20 |
| 5090 | | | | | | 2.7 | 9 | 183 | 11 | 4 | 19 | 2 | −2 | −5 | −5 | 6 | 1 | 48 | −25 | 510 | 478 | 29 | −20 | −20 |
| 5091 | | | | | | 6.5 | 33 | 1208 | 49 | 19 | 23 | −1 | −2 | −5 | 34 | 57 | 2 | 53 | −25 | 477 | 71 | 107 | −20 | −20 |
| 5092 | | | | | | 4.9 | 15 | 220 | 54 | 5 | 18 | 2 | −2 | −5 | −5 | 11 | 1 | 62 | −25 | 530 | 552 | 29 | −20 | −20 |
| 5093 | | | | | | 12.1 | 54 | 1719 | 65 | 32 | 29 | 1 | −2 | −5 | 25 | 78 | 2 | 92 | −25 | 194 | 85 | 181 | −20 | −20 |
| 5094 | | | | | | 2.4 | 9 | 146 | 74 | 3 | 16 | −1 | −2 | −5 | −5 | 22 | 1 | 57 | −25 | 946 | 395 | 37 | −20 | −20 |
| 5095 | | | | | | 6.5 | 60 | 1057 | 153 | 16 | 36 | −1 | −2 | −5 | 66 | 57 | 3 | 94 | −25 | 774 | 71 | 100 | −20 | −20 |
| 5096 | | | | | | 2.1 | 11 | 236 | 4 | 3 | 17 | 3 | −2 | 11 | −5 | 12 | 1 | 40 | −25 | 451 | 436 | 49 | −20 | −20 |
| 5097 | | | | | | 5.0 | 58 | 843 | 66 | 21 | 32 | −1 | −2 | −5 | 45 | 64 | 3 | 65 | −25 | 506 | 104 | 126 | −20 | −20 |
| 5098 | <0.0100 | <0.0100 | | | | | | | | | | | | | | | | | | | | | | |
| 5099 | | | | | | <0.5 | 5 | 125 | 2 | 3 | 3 | −1 | −2 | 7 | −5 | −5 | 0 | 8 | −25 | 622 | 105 | 37 | −20 | −20 |
| 5100 | | | | | | 0.8 | 33 | 654 | 38 | 13 | 21 | −1 | −2 | 6 | 81 | 18 | 3 | 14 | −25 | 934 | 41 | 93 | −20 | −20 |
| 5101 | | | | | | 3.8 | 21 | 1437 | 258 | 3 | 13 | 4 | 2 | 12 | −5 | 19 | 1 | 43 | −25 | 322 | 386 | 38 | −20 | −20 |
| 5102 | | | | | | 14.8 | 121 | 2530 | 5,434 | 29 | 34 | 15 | 17 | −5 | 157 | 90 | 10 | 988 | −25 | 312 | 65 | 107 | −20 | −20 |
| 5103 | | | | | | 3.6 | 9 | 885 | 102 | 4 | 8 | 2 | −2 | 14 | 19 | 37 | 1 | 41 | −25 | 1,230 | 383 | 35 | −20 | −20 |
| 5105 | | | | | | <0.5 | 24 | 63 | 125 | 10 | 33 | −1 | −2 | −5 | −5 | −5 | 3 | 322 | −25 | 573 | 54 | 105 | −20 | −20 |
| 5106 | | | | | | 0.6 | 24 | 13 | 104 | 6 | 15 | −1 | −2 | −5 | 21 | −5 | 1 | 143 | −25 | 2,000 | 17 | 44 | −20 | −20 |
| 5107 | | | | | | 1.3 | 47 | 536 | 694 | 13 | 102 | 22 | −2 | −5 | 15 | 14 | 7 | 6,861 | −25 | 1,794 | 100 | 100 | −20 | −20 |
| 5108 | | | | | | 3.2 | 67 | 558 | 501 | 11 | 68 | 7 | −2 | −5 | 33 | 10 | 3 | 1,881 | −25 | 508 | 200 | 129 | −20 | −20 |
| 5109 | | | | | | 2.6 | 57 | 170 | 438 | 15 | 76 | 10 | −2 | −5 | 32 | 29 | 8 | 581 | −25 | 841 | 224 | 130 | −20 | −20 |
| 5110 | | | | | | 0.6 | 15 | 19 | 24 | −1 | 23 | 3 | −2 | 6 | −5 | −5 | 1 | 225 | −25 | 1,319 | 166 | 53 | −20 | −20 |
| 5111 | | | | | | 5.2 | 92 | 38 | 126 | 12 | 83 | −1 | −2 | −5 | 25 | 8 | 2 | 120 | −25 | 191 | 379 | 166 | −20 | −20 |
| 5112 | | | | | | <0.5 | 16 | 21 | 18 | 2 | 21 | 4 | −2 | 7 | 12 | 9 | 1 | 251 | −25 | 1,228 | 216 | 51 | −20 | −20 |
| 5113 | | | | | | 5.5 | 66 | 3 | 288 | 11 | 109 | 6 | 6 | −5 | 8 | −5 | 2 | 671 | −25 | 594 | 212 | 210 | −20 | 37 |
| 5114 | | | | | | 10.0 | 67 | 119 | 357 | 20 | 137 | 8 | −2 | 11 | 27 | 14 | 3 | 674 | −25 | 165 | 305 | 185 | −20 | −20 |
| 5115 | | | | | | 0.9 | 20 | 43 | (2) | 4 | 36 | 5 | −2 | 7 | 6 | −5 | 1 | 75 | −25 | 267 | 643 | 27 | −20 | −20 |
| 5116 | | | | | | 3.2 | 51 | 211 | 84 | 18 | 58 | 4 | −2 | −5 | 59 | 17 | 6 | 258 | −25 | 253 | 132 | 141 | −20 | −20 |
| 5117 | | | | | | <0.5 | 53 | 18 | 25 | 2 | 48 | 16 | −2 | 9 | −5 | −5 | 3 | 445 | −25 | 1,748 | 302 | 120 | −20 | −20 |
| 5118 | | | | | | 0.8 | 99 | 35 | 171 | 7 | 98 | 23 | −2 | −5 | −5 | 11 | 4 | 1,181 | −25 | 1,065 | 85 | 156 | −20 | −20 |
| 5119 | | | | | | <0.5 | 11 | 195 | 3 | 3 | 7 | −1 | −2 | −5 | −5 | 18 | 1 | 34 | −25 | 926 | 262 | 44 | −20 | −20 |
| 5120 | | | | | | 2.1 | 31 | 526 | 49 | 18 | 14 | −1 | −2 | −5 | 32 | 77 | 6 | 117 | −25 | 609 | 94 | 145 | −20 | −20 |
| 5121 | | | | | | 1.4 | 6 | 315 | 15 | 4 | 14 | 1 | −2 | −5 | −5 | −5 | 1 | 44 | −25 | 710 | 435 | 20 | −20 | −20 |
| 5122 | | | | | | <0.5 | 20 | 58 | 13 | 20 | 8 | −1 | −2 | −5 | 11 | −5 | 4 | 25 | −25 | 1,523 | 99 | 153 | −20 | −20 |
| 5123 | | | | | | 3.9 | 35 | 111 | 17 | 12 | 53 | −1 | −2 | −5 | 16 | 8 | 1 | 15 | −25 | 343 | 267 | 134 | −20 | −20 |
| 5124 | | | | | | 1.4 | 10 | 91 | 24 | 7 | 24 | 3 | −2 | 10 | −5 | −5 | 1 | 54 | −25 | 482 | 386 | 53 | −20 | −20 |

| Sample no. | Pb % | Zn % | Ba % | Cr % | Mn % | Ag ppm | Cu ppm | Pb ppm | Zn ppm | Mo ppm | Ni ppm | Co ppm | Cd ppm | Bi ppm | As ppm | Sb ppm | Fe % | Mn ppm | Te ppm | Ba ppm | Cr ppm | V ppm | Sn ppm | W ppm |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5125 | | | | | | 1.9 | 12 | 176 | 110 | 4 | 18 | 2 | −2 | −5 | −5 | 9 | 1 | 422 | −25 | 387 | 217 | 50 | −20 | −20 |
| 5126 | | | | | | 0.6 | 47 | 84 | 900 | 14 | 49 | 13 | −2 | 5 | 52 | 22 | 4 | 669 | −25 | 1,268 | 63 | 85 | −20 | −20 |
| 5127 | | | | | | <0.5 | 3 | 15 | (2) | 3 | 2 | −1 | −2 | 10 | −5 | 14 | 0 | 9 | −25 | 519 | 65 | 35 | −20 | −20 |
| 5128 | | | | | | 0.7 | 5 | 55 | (2) | 1 | 2 | −1 | −2 | 5 | 18 | −5 | 0 | 8 | −25 | 288 | 57 | 36 | −20 | −20 |
| 5129 | | | | | | <0.5 | 7 | 41 | 25 | 2 | 2 | 1 | −2 | 8 | −5 | 9 | 1 | 21 | −25 | 520 | 76 | 39 | −20 | −20 |
| 5130 | | | | | | <0.5 | 58 | 452 | 409 | 5 | 15 | −1 | −2 | −5 | 87 | 28 | 6 | 138 | −25 | 556 | 55 | 104 | −20 | −20 |
| 5131 | | | | | | <0.5 | 7 | 44 | 69 | 4 | 4 | −1 | −2 | −5 | −5 | 14 | 1 | 105 | −25 | 423 | 57 | 40 | −20 | −20 |
| 5132 | | | | | | 1.4 | 34 | 297 | 203 | 4 | 24 | −1 | −2 | −5 | 67 | 26 | 3 | 65 | −25 | 658 | 38 | 76 | −20 | −20 |
| 5133 | | | | | | <0.5 | 7 | 31 | 42 | 1 | 2 | −1 | −2 | 12 | −5 | −5 | 1 | 15 | −25 | 475 | 63 | 37 | −20 | −20 |
| 5134 | | | | | | <0.5 | 26 | 145 | 95 | 6 | 12 | −1 | −2 | −5 | 30 | 19 | 5 | 30 | −25 | 531 | 29 | 68 | −20 | −20 |
| 5135 | | | | | | <0.5 | 6 | 18 | 135 | −1 | 4 | 2 | −2 | −5 | −5 | −5 | 1 | 98 | −25 | 310 | 36 | 40 | −20 | −20 |
| 5136 | | | | | | <0.5 | 25 | 156 | 153 | 6 | 22 | −1 | −2 | −5 | 74 | 20 | 4 | 60 | −25 | 791 | 31 | 80 | −20 | −20 |
| 5137 | | | | | | 0.5 | 38 | 44 | 527 | 6 | 42 | 4 | −2 | −5 | 29 | −5 | 5 | 377 | −25 | 811 | 65 | 130 | −20 | −20 |
| 5138 | | | | | | 3.0 | 36 | 276 | 24 | 16 | 24 | −1 | −2 | −5 | −5 | 9 | 5 | 41 | −25 | 607 | 84 | 111 | −20 | −20 |
| 5139 | | | | | | 3.7 | 21 | 336 | 47 | 7 | 22 | 2 | −2 | −5 | −5 | 12 | 1 | 32 | −25 | 242 | 372 | 96 | −20 | −20 |
| 5140 | | | | | | 19.5 | 93 | 1907 | 42 | 32 | 49 | −1 | −2 | −5 | 24 | 58 | 2 | 29 | −25 | 195 | 305 | 270 | −20 | −20 |
| 5141 | | | | | | 1.5 | 10 | 238 | 17 | 2 | 13 | 2 | −2 | 8 | −5 | 14 | 1 | 46 | −25 | 590 | 461 | 33 | −20 | −20 |
| 5142 | | | | | | 10.0 | 40 | 3288 | 101 | 21 | 41 | −1 | −2 | 6 | 44 | 38 | 3 | 77 | −25 | 162 | 147 | 155 | −20 | −20 |
| 5143 | | | | | | 1.3 | 31 | 500 | 191 | 4 | 24 | 11 | −2 | 7 | 7 | 11 | 2 | 255 | −25 | 690 | 359 | 91 | −20 | −20 |
| 5144 | | | | | | 5.8 | 105 | 2608 | 286 | 15 | 46 | 7 | −2 | −5 | 35 | 23 | 7 | 265 | −25 | 252 | 126 | 172 | −20 | −20 |
| 5145 | | | | | | 3.9 | 14 | 810 | 742 | 4 | 7 | 2 | −2 | 10 | 6 | 11 | 1 | 33 | −25 | 399 | 380 | 30 | −20 | −20 |
| 5146 | | | | | | <0.5 | 48 | 11 | 70 | 2 | 35 | 10 | −2 | 9 | 9 | −5 | 2 | 361 | −25 | 2,000 | 349 | 77 | −20 | −20 |
| 5147 | | | | | | 1.3 | 84 | 79 | 457 | 68 | 91 | 9 | −2 | −5 | 22 | −5 | 3 | 406 | −25 | 2,000 | 95 | 148 | −20 | −20 |
| 5148 | | | | | | 1.9 | 71 | 27 | 191 | 13 | 80 | 8 | −2 | −5 | −5 | −5 | 3 | 3,030 | −25 | 736 | 91 | 141 | −20 | −20 |
| 5149 | | | | | | <0.5 | 4 | 39 | 141 | 3 | 6 | −1 | −2 | −5 | 8 | −5 | 1 | 1,331 | −25 | 625 | 141 | 19 | −20 | −20 |
| 5150 | | | | | | 1.3 | 19 | 543 | 3,260 | 21 | 70 | 3 | −2 | −5 | 46 | 30 | 10 | 4,521 | −25 | 718 | 43 | 76 | 21 | −20 |
| 5151 | | | | | | <0.5 | 6 | 34 | 81 | 3 | 16 | 3 | −2 | 16 | −5 | 13 | 1 | 504 | −25 | 209 | 524 | 6 | −20 | −20 |
| 5152 | | | | | | 0.9 | 23 | 152 | 139 | 12 | 28 | 3 | −2 | −5 | 52 | −5 | 5 | 242 | −25 | 767 | 78 | 92 | −20 | −20 |
| 5153 | | | | | | 3.6 | 72 | 17 | 66 | 10 | 52 | −1 | −2 | 11 | 58 | 14 | 2 | 44 | −25 | 545 | 248 | 126 | −20 | −20 |
| 5154 | | | | | | 3.0 | 20 | 26 | 17 | 6 | 31 | 2 | −2 | 6 | −5 | −5 | 1 | 304 | −25 | 706 | 539 | 71 | −20 | −20 |
| 5155 | | | | | | 2.4 | 118 | 2 | 95 | 14 | 77 | −1 | −2 | 8 | 18 | 6 | 2 | 34 | −25 | 63 | 427 | 160 | −20 | −20 |
| 5156 | | | | | | 0.6 | 8 | 128 | 180 | 3 | 6 | 2 | −2 | 11 | 25 | 12 | 2 | 198 | −25 | 326 | 46 | 20 | −20 | −20 |
| 5157 | | | | | | 1.7 | 93 | 476 | 669 | 12 | 46 | 9 | −2 | −5 | 60 | 42 | 6 | 656 | −25 | 1,170 | 68 | 68 | −20 | −20 |
| 5158 | | | | | | <0.5 | 10 | 33 | 1,571 | 4 | 18 | 2 | 5 | 8 | −5 | 7 | 1 | 762 | −25 | 2,000 | 46 | 11 | −20 | −20 |
| 5159 | | | | | | 0.7 | 112 | 197 | 1,840 | 9 | 65 | 44 | 5 | −5 | 81 | 32 | 6 | 2,438 | −25 | 664 | 50 | 55 | −20 | −20 |
| 5160 | | | | | | <0.5 | 21 | 14 | 233 | 1 | 9 | 6 | −2 | 11 | −5 | 11 | 2 | 280 | −25 | 301 | 45 | 38 | −20 | −20 |
| 5161 | | | | | | 0.7 | 173 | 254 | 879 | 5 | 56 | 43 | −2 | −5 | 122 | 21 | 9 | 1,038 | −25 | 286 | 53 | 75 | −20 | −20 |
| 5162 | | | | | | 0.6 | 7 | 27 | 83 | 2 | 6 | 2 | −2 | −5 | 14 | −5 | 0 | 35 | −25 | 771 | 56 | 31 | −20 | −20 |
| 5163 | | | | | | <0.5 | 27 | 37 | 108 | 3 | 17 | −1 | −2 | −5 | 32 | 16 | 3 | 56 | −25 | 535 | 23 | 67 | −20 | −20 |
| 5164 | | | | | | <0.5 | 5 | 67 | 8 | 2 | 3 | −1 | −2 | −5 | −5 | 13 | 0 | 14 | −25 | 708 | 73 | 39 | −20 | −20 |
| 5165 | | | | | | 0.8 | 28 | 254 | 84 | 3 | 20 | −1 | −2 | −5 | 45 | 20 | 4 | 48 | −25 | 628 | 31 | 67 | −20 | −20 |
| 5166 | | | | | | 0.7 | 6 | 23 | 124 | 5 | 8 | −1 | −2 | 16 | −5 | −5 | 1 | 176 | −25 | 231 | 46 | 44 | −20 | −20 |
| 5167 | | | | | | <0.5 | 26 | 96 | 100 | 9 | 15 | −1 | −2 | −5 | 49 | 11 | 6 | 49 | −25 | 525 | 27 | 75 | −20 | −20 |
| 5168 | | | | | | <0.5 | 4 | 60 | 3 | 4 | 3 | −1 | −2 | −5 | −5 | −5 | 0 | 11 | −25 | 563 | 44 | 36 | −20 | −20 |
| 5169 | | | | | | <0.5 | 24 | 83 | 50 | 8 | 12 | −1 | −2 | −5 | 17 | 19 | 6 | 19 | −25 | 517 | 24 | 73 | −20 | −20 |
| 5170 | | | | | | 0.7 | 5 | 24 | 30 | −1 | 5 | 2 | −2 | 8 | 15 | 6 | 1 | 103 | −25 | 457 | 168 | 42 | −20 | −20 |
| 5171 | | | | | | <0.5 | 29 | 33 | 698 | 7 | 50 | 4 | 3 | 7 | 44 | 6 | 2 | 547 | −25 | 475 | 33 | 82 | −20 | −20 |
| 5172 | | | | | | <0.5 | 25 | −2 | 748 | 3 | 41 | 9 | −2 | −5 | 8 | 8 | 6 | 1,033 | −25 | 833 | 52 | 137 | −20 | −20 |
| 5173 | | | | | | 1.5 | 17 | 130 | 19 | 2 | 47 | 2 | −2 | 8 | 9 | −5 | 0 | 42 | −25 | 459 | 371 | 71 | −20 | −20 |
| 5174 | | | | | | <0.5 | 28 | 108 | 398 | 6 | 29 | 5 | −2 | −5 | 29 | 25 | 5 | 391 | −25 | 977 | 71 | 146 | −20 | −20 |
| 5175 | | | | | | 2.5 | 4 | 150 | 78 | 10 | −1 | −1 | −2 | 7 | 9 | 12 | 0 | 17 | −25 | 416 | 56 | 23 | −20 | −20 |
| 5176 | | | | | | 10.7 | 37 | 1154 | 92 | 11 | 12 | −1 | −2 | −5 | 47 | 79 | 10 | 117 | −25 | 1,199 | 62 | 82 | −20 | −20 |
| 5177 | | | | | | 1.3 | 5 | 341 | 13 | 2 | 4 | 1 | −2 | 14 | 19 | 11 | 1 | 20 | −25 | 1,340 | 139 | 29 | −20 | −20 |
| 5178 | | | | | | 3.5 | 29 | 704 | 133 | 17 | 16 | −1 | −2 | −5 | 37 | 16 | 6 | 48 | −25 | 594 | 76 | 131 | −20 | −20 |
| 5179 | | | | | | 4.8 | 26 | 338 | 12 | 5 | 31 | 3 | −2 | 14 | 15 | 16 | 0 | 31 | −25 | 296 | 393 | 91 | −20 | −20 |
| 5180 | | | | | | 8.3 | 66 | 859 | 26 | 20 | 42 | −1 | −2 | −5 | 20 | 43 | 1 | 12 | −25 | 185 | 244 | 156 | −20 | −20 |
| 5181 | | | | | | 1.4 | 10 | 154 | 3 | 3 | 20 | 2 | −2 | 6 | −5 | −5 | 1 | 45 | −25 | 294 | 505 | 31 | −20 | −20 |
| 5182 | | | | | | 8.3 | 83 | 2108 | 59 | 67 | 86 | 1 | −2 | −5 | 73 | 21 | 3 | 33 | −25 | 73 | 184 | 132 | −20 | −20 |

APPENDIX. 1990–1991 CMD Sample Analytical Results

| Sample no. | Pb % | Zn % | Ba % | Cr % | Mn % | Ag ppm | Cu ppm | Pb ppm | Zn ppm | Mo ppm | Ni ppm | Co ppm | Cd ppm | Bi ppm | As ppm | Sb ppm | Fe % | Mn ppm | Te ppm | Ba ppm | Cr ppm | V ppm | Sn ppm | W ppm |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5183 | | | | | | 0.8 | 10 | 148 | 6 | 10 | 13 | 3 | −2 | −5 | 8 | −5 | 1 | 47 | −25 | 958 | 452 | 25 | −20 | −20 |
| 5184 | | | | | | <0.5 | 10 | 102 | (2) | 5 | 11 | 2 | −2 | 13 | 37 | 5 | 1 | 43 | −25 | 759 | 404 | 30 | −20 | −20 |
| 5185 | | | | | | 0.6 | 11 | 196 | 18 | 1 | 10 | 3 | −2 | 8 | −5 | −5 | 1 | 29 | −25 | 1,605 | 261 | 48 | −20 | −20 |
| 5186 | | | | | | 4.6 | 43 | 1758 | 39 | 30 | 19 | −1 | −2 | −5 | 33 | 31 | 7 | 79 | −25 | 76 | 115 | 190 | −20 | −20 |
| 5187 | | | | | | 1.1 | 9 | 139 | 6 | 3 | 6 | 2 | −2 | 11 | 8 | 11 | 1 | 22 | −25 | 1,668 | 183 | 50 | −20 | −20 |
| 5188 | | | | | | 3.8 | 42 | 884 | 36 | 22 | 13 | −1 | −2 | 5 | 28 | 34 | 3 | 31 | −25 | 1,084 | 98 | 154 | −20 | −20 |
| 5189 | | | | | | 1.0 | 12 | 54 | 18 | 1 | 8 | 1 | −2 | −5 | −5 | −5 | 1 | 46 | −25 | 1,318 | 470 | 25 | −20 | −20 |
| 5190 | | | | | | 1.9 | 6 | 195 | 9 | 4 | 2 | −1 | −2 | −5 | 9 | 6 | 0 | 15 | −25 | 509 | 59 | 25 | −20 | −20 |
| 5191 | | | | | | <0.5 | 37 | 73 | 384 | 12 | 30 | 5 | −2 | 9 | 58 | 20 | 3 | 733 | −25 | 1,011 | 29 | 65 | −20 | −20 |
| 5192 | | | | | | 1.1 | 26 | 72 | 55 | 13 | 20 | 3 | −2 | −5 | 19 | 7 | 3 | 72 | −25 | 1,288 | 65 | 88 | −20 | −20 |
| 5193 | | | | | | 2.7 | 13 | 373 | 281 | 3 | 8 | 2 | −2 | 10 | 10 | 7 | 1 | 40 | −25 | 475 | 412 | 22 | −20 | −20 |
| 5194 | | | | | | 2.1 | 42 | 329 | 44 | 16 | 11 | −1 | −2 | −5 | 55 | 37 | 5 | 56 | −25 | 714 | 53 | 68 | −20 | −20 |
| 5195 | | | | | | 0.7 | 5 | 42 | 3 | 2 | 2 | −1 | −2 | 10 | 9 | 8 | 0 | 8 | −25 | 479 | 60 | 33 | −20 | −20 |
| 5196 | | | | | | 0.7 | 34 | 106 | 269 | 6 | 7 | −1 | −2 | −5 | 34 | 23 | 5 | 78 | −25 | 410 | 71 | 125 | −20 | −20 |
| 5197 | | | | | | 0.6 | 7 | 41 | 24 | 2 | 3 | 1 | −2 | −5 | 32 | 14 | 1 | 51 | −25 | 1,401 | 110 | 34 | −20 | −20 |
| 5198 | | | | | | <0.5 | 24 | 18 | 216 | 3 | 19 | −1 | −2 | −5 | −5 | 9 | 2 | 209 | −25 | 1,056 | 20 | 62 | −20 | −20 |
| 5199 | | | | | | <0.5 | 17 | 50 | 155 | 7 | 30 | 5 | −2 | −5 | 34 | −5 | 3 | 728 | −25 | 914 | 29 | 65 | −20 | −20 |
| 5200 | | | | | | <0.5 | 6 | 20 | 159 | 3 | 6 | 7 | −2 | −5 | −5 | −5 | 3 | 557 | −25 | 1,412 | 34 | 45 | −20 | −20 |
| 5201 | | | | | | 1.4 | 2 | −2 | (2) | 3 | 12 | −1 | −2 | 6 | 5 | 6 | 0 | 78 | −25 | 229 | 349 | 13 | −20 | −20 |
| 5202 | | | | | | 2.9 | 1 | 131 | (2) | 2 | 12 | −1 | −2 | −5 | 56 | 28 | 0 | 77 | −25 | 993 | 109 | 27 | −20 | −20 |
| 5203 | | | | | | 6.2 | 14 | 274 | (2) | 43 | 16 | −1 | −2 | 6 | 121 | 86 | 6 | 86 | −25 | 272 | 34 | 63 | −20 | −20 |
| 5204 | | | | | | 1.6 | 20 | 20 | 18 | 3 | 15 | 8 | −2 | −5 | −5 | 11 | 2 | 250 | −25 | 428 | 347 | 59 | −20 | −20 |
| 5205 | | | | | | 3.8 | 26 | 975 | 27 | 29 | 16 | −1 | −2 | 14 | 116 | 55 | 6 | 44 | −25 | 462 | 59 | 86 | −20 | −20 |
| 5206 | | | | | | 1.8 | 13 | 215 | 23 | 6 | 14 | 1 | −2 | 11 | 17 | 17 | 1 | 40 | −25 | 1,227 | 420 | 33 | −20 | −20 |
| 5207 | | | | | | 3.2 | 36 | 269 | 55 | 17 | 31 | −1 | −2 | 16 | 58 | 35 | 4 | 35 | −25 | 843 | 129 | 78 | −20 | −20 |
| 5208 | 0.0100 | 0.1600 | | | | 3.7 | 8 | 81 | 1,701 | −1 | 6 | 3 | 7 | −5 | −5 | 12 | 1 | 188 | −25 | 210 | 469 | 6 | −20 | −20 |
| 5209 | | | | | | 2.9 | 24 | 313 | 41 | 13 | 14 | −1 | −2 | 21 | 69 | 35 | 3 | 24 | −25 | 1,044 | 62 | 59 | −20 | −20 |
| 5210 | | | | | | 0.6 | 63 | 37 | 251 | 6 | 36 | 20 | −2 | 16 | 25 | 14 | 5 | 596 | −25 | 1,249 | 301 | 162 | −20 | −20 |
| 5211 | | | | | | 6.3 | 40 | 1160 | 74 | 29 | 16 | −1 | −2 | 12 | 48 | 54 | 3 | 27 | −25 | 1,590 | 90 | 78 | −20 | −20 |
| 5212 | | | | | | 1.9 | 8 | 174 | 14 | 5 | 10 | 1 | −2 | 9 | 29 | 18 | 0 | 43 | −25 | 794 | 204 | 33 | −20 | −20 |
| 5213 | | | | | | 4.6 | 53 | 615 | 48 | 15 | 35 | 3 | −2 | 14 | 18 | 27 | 2 | 55 | −25 | 1,824 | 146 | 144 | −20 | −20 |
| 5214 | | | | | | 4.1 | 13 | 308 | 19 | 8 | 24 | 1 | −2 | 11 | 35 | 36 | 1 | 28 | −25 | 285 | 401 | 55 | −20 | −20 |
| 5215 | | | | | | 8.9 | 39 | 1706 | 46 | 30 | 42 | −1 | −2 | 16 | 62 | 69 | 1 | 11 | −25 | 488 | 218 | 133 | −20 | −20 |
| 5216 | | | | | | 3.0 | 12 | 663 | 21 | 6 | 10 | 1 | −2 | 13 | 18 | 23 | 1 | 29 | −25 | 433 | 325 | 43 | −20 | −20 |
| 5217 | | | | | | 8.6 | 54 | 3082 | 132 | 12 | 51 | 2 | −2 | 15 | 27 | 37 | 3 | 48 | −25 | 816 | 246 | 163 | −20 | −20 |
| 5218 | 0.1700 | <0.0100 | | | | | | | | | | | | | | | | | | | | | | |
| 5219 | | | | | | 4.2 | 10 | 1354 | 17 | 6 | 8 | 1 | −2 | 9 | 18 | 29 | 1 | 32 | −25 | 357 | 382 | 22 | −20 | −20 |
| 5220 | | | | | | 45.9 | 61 | 10000 | 226 | 50 | 27 | 6 | −2 | 13 | 115 | 189 | 6 | 282 | −25 | 676 | 149 | 137 | −20 | −20 |
| 5221 | | | | | | 1.1 | 6 | 64 | 49 | 2 | 3 | −1 | −2 | 7 | 46 | 9 | 1 | 12 | −25 | 871 | 92 | 37 | −20 | −20 |
| 5222 | | | | | | 0.9 | 29 | 133 | 320 | 6 | 25 | 2 | −2 | −5 | 31 | 17 | 4 | 97 | −25 | 838 | 47 | 88 | −20 | −20 |
| 5223 | | | | | | 2.1 | 8 | 84 | 57 | 5 | 5 | 2 | −2 | 21 | 53 | 13 | 0 | 240 | −25 | 439 | 61 | 52 | −20 | −20 |
| 5224 | | | | | | 1.1 | 37 | 95 | 468 | 7 | 36 | 9 | −2 | 8 | 38 | 11 | 5 | 229 | −25 | 893 | 67 | 116 | −20 | −20 |
| 5225 | | | | | | 1.4 | 32 | 114 | 410 | 28 | 39 | 10 | −2 | 7 | 48 | 16 | 5 | 374 | −25 | 336 | 68 | 106 | −20 | −20 |
| 5226 | | | | | | 0.9 | 5 | 13 | 115 | 5 | 6 | −1 | −2 | −5 | 9 | −5 | 0 | 63 | −25 | 177 | 46 | 56 | −20 | −20 |
| 5227 | | | | | | 2.3 | 40 | 220 | 609 | 11 | 38 | 12 | −2 | 14 | 56 | 18 | 4 | 291 | −25 | 979 | 48 | 99 | −20 | −20 |
| 5228 | | | | | | 1.6 | 22 | 33 | 388 | 8 | 27 | 5 | −2 | 24 | 6 | 17 | 3 | 322 | −25 | 826 | 47 | 107 | −20 | −20 |
| 5229 | | | | | | 1.2 | 23 | 98 | 88 | 6 | 8 | −1 | −2 | 16 | 59 | 19 | 4 | 44 | −25 | 540 | 31 | 69 | −20 | −20 |
| 5230 | | | | | | 1.4 | 9 | 73 | 8 | 5 | 8 | −1 | −2 | −5 | −5 | 17 | 1 | 29 | −25 | 1,387 | 319 | 21 | −20 | −20 |
| 5231 | | | | | | 1.8 | 38 | 244 | 93 | 14 | 11 | 3 | −2 | −5 | 25 | 23 | 7 | 249 | −25 | 423 | 98 | 108 | −20 | −20 |
| 5232 | | | | | | 1.8 | 15 | 304 | 107 | 3 | 12 | 3 | −2 | 9 | 31 | 16 | 1 | 28 | −25 | 1,104 | 217 | 50 | −20 | −20 |
| 5233 | | | | | | 1.0 | 4 | 36 | 8 | 4 | 6 | 2 | −2 | −5 | −5 | 15 | 0 | 26 | −25 | 973 | 294 | 28 | −20 | −20 |
| 5234 | | | | | | 1.7 | 11 | 63 | 26 | 4 | 12 | 2 | −2 | −5 | 14 | 13 | 1 | 34 | −25 | 379 | 356 | 27 | −20 | −20 |
| 5235 | | | | | | 2.0 | 36 | 223 | 56 | 14 | 18 | 5 | −2 | 15 | 40 | 11 | 3 | 249 | −25 | 764 | 101 | 135 | −20 | −20 |
| 5236 | | | | | | 2.2 | 15 | 65 | 7 | 19 | 15 | 2 | −2 | 10 | 31 | 14 | 0 | 29 | −25 | 499 | 278 | 35 | −20 | −20 |
| 5237 | | | | | | 4.0 | 43 | 827 | 85 | 18 | 25 | 6 | −2 | 9 | 37 | 39 | 4 | 358 | −25 | 754 | 122 | 148 | −20 | −20 |
| 5238 | | | | | | 6.0 | 38 | 704 | 44 | 23 | 46 | −1 | −2 | 17 | 32 | 17 | 3 | 66 | −25 | 499 | 116 | 118 | −20 | −20 |
| 5239 | | | | | | 1.6 | 16 | 145 | 20 | 10 | 13 | 1 | −2 | 10 | 18 | 5 | 1 | 31 | −25 | 145 | 296 | 33 | −20 | −20 |
| 5240 | | | | | | 9.7 | 62 | 560 | 55 | 20 | 62 | −1 | −2 | 7 | 21 | 29 | 3 | 11 | −25 | 244 | 197 | 144 | −20 | −20 |

APPENDIX. 1990–1991 CMD Sample Analytical Results

| Sample no. | Pb % | Zn % | Ba % | Cr % | Mn % | Ag ppm | Cu ppm | Pb ppm | Zn ppm | Mo ppm | Ni ppm | Co ppm | Cd ppm | Bi ppm | As ppm | Sb ppm | Fe % | Mn ppm | Te ppm | Ba ppm | Cr ppm | V ppm | Sn ppm | W ppm |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5241 | 0.1600 | 5.1800 | | | | 26.5 | 122 | 1726 | 20,000 | 73 | 29 | 13 | 180 | −5 | 61 | 79 | 1 | 103 | −25 | 61 | 386 | 39 | −20 | −20 |
| 5242 | 0.0100 | 0.0100 | | | | 3.0 | 8 | 98 | 204 | −1 | 26 | −1 | −2 | −5 | 13 | 8 | 1 | 208 | −25 | 136 | 417 | 33 | −20 | −20 |
| 5243 | 0.0300 | 0.0200 | | | | 3.2 | 6 | 301 | 119 | 1 | 29 | 2 | −2 | −5 | 5 | 18 | 1 | (5) | −25 | 182 | 379 | 43 | −20 | −20 |
| 5244 | 0.0900 | 0.1400 | | | | 6.5 | 50 | 934 | 1,563 | 9 | 34 | 10 | 7 | −5 | −5 | 26 | 1 | 221 | −25 | 217 | 354 | 55 | −20 | −20 |
| 5245 | <0.0100 | 0.0400 | | | | 1.1 | 5 | 4 | 68 | 4 | 14 | 3 | −2 | −5 | 38 | 5 | 1 | 285 | −25 | 56 | 446 | 9 | −20 | −20 |
| 5246 | Add data from SLRC | | | | | | | | | | | | | | | | | | | | | | | |
| 5247 | 1.9000 | 9.2300 | | | | 26.4 | 12 | 10000 | 20,000 | 132 | 15 | 17 | 131 | −5 | 136 | 282 | 2 | 16 | −25 | 234 | 380 | 11 | −20 | −20 |
| 5248 | −9.0000 | −9.0000 | | | | 50.0 | 162 | 10000 | 20,000 | 185 | 31 | 90 | 679 | −5 | 256 | 526 | 3 | 120 | −25 | 130 | 285 | 21 | −20 | −20 |
| 5249 | −9.0000 | −9.0000 | | | | 50.0 | 35 | 10000 | 20,000 | 67 | 22 | 14 | 63 | −5 | 234 | 193 | 2 | 94 | −25 | 432 | 520 | 17 | −20 | −20 |
| 5250 | 0.1600 | 0.1400 | | | | 5.8 | 14 | 1655 | 1,630 | 4 | 18 | 6 | 8 | −5 | 7 | 14 | 1 | 40 | −25 | 176 | 405 | 35 | −20 | −20 |
| 5251 | 0.1900 | 0.0400 | | | | 5.2 | 21 | 1836 | 395 | 53 | 27 | 4 | 4 | −5 | 23 | 25 | 1 | 136 | −25 | 240 | 432 | 33 | −20 | −20 |
| 5252 | 0.3200 | 0.5100 | | | | 21.5 | 91 | 3429 | 5,732 | 15 | 28 | 8 | 28 | −5 | 18 | 31 | 1 | (5) | −25 | 118 | 460 | 30 | −20 | −20 |
| 5253 | | | | | | <0.5 | 25 | 20 | 106 | 2 | 35 | 8 | −2 | −5 | 12 | −5 | 3 | 1,026 | −25 | 174 | 303 | 65 | −20 | −20 |
| 5254 | | | | | | | | | | | | | | | | | | | | | | | | |
| 5255 | | | | | | <0.5 | 22 | 13 | 77 | −1 | 30 | 10 | −2 | −5 | −5 | −5 | 4 | 687 | −25 | 170 | 318 | 59 | −20 | −20 |
| 5256 | | | | | | <0.5 | 31 | 18 | 54 | 7 | 46 | 5 | −2 | −5 | −5 | −5 | 3 | 375 | −25 | 634 | 116 | 164 | −20 | −20 |
| 5257 | | | | | | <0.5 | 20 | 20 | 111 | 2 | 51 | 16 | −2 | −5 | 29 | −5 | 5 | 935 | −25 | 116 | 296 | 52 | −20 | −20 |
| 5258 | | | | | | <0.5 | 32 | 16 | 61 | 4 | 60 | 10 | −2 | −5 | 21 | −5 | 3 | 702 | −25 | 515 | 103 | 133 | −20 | −20 |
| 5259 | | | | | | <0.5 | 19 | 325 | 281 | −1 | 50 | 15 | −2 | −5 | −5 | −5 | 5 | 921 | −25 | 162 | 296 | 57 | −20 | −20 |
| 5260 | | | | | | <0.5 | 34 | 29 | 224 | −1 | 46 | 10 | −2 | −5 | 21 | −5 | 3 | 484 | −25 | 482 | 100 | 127 | −20 | −20 |
| 5261 | | | | | | 2.1 | 29 | 444 | 1,775 | 112 | 33 | 4 | 5 | −5 | 61 | 64 | 2 | 315 | −25 | 306 | 253 | 86 | −20 | −20 |
| 5262 | | | | | | 1.0 | 34 | 334 | 356 | −1 | 37 | 13 | −2 | −5 | 19 | −5 | 3 | 754 | −25 | 513 | 101 | 124 | −20 | −20 |
| 5263 | | | | | | <0.5 | 22 | 427 | 1,773 | 20 | 29 | 9 | 8 | −5 | −5 | 24 | 3 | 722 | −25 | 565 | 251 | 96 | −20 | −20 |
| 5264 | | | | | | 4.1 | 45 | 1702 | 401 | 3 | 41 | 20 | −2 | −5 | 32 | 19 | 3 | 1,343 | −25 | 614 | 106 | 136 | −20 | −20 |
| 5265 | | | | | | 0.9 | 5 | 53 | 16 | 15 | 8 | −1 | −2 | 6 | 8 | −5 | 0 | 33 | −25 | 474 | 344 | 10 | −20 | −20 |
| 5266 | 0.3300 | 10.0000 | | | | 22.9 | 102 | 3026 | 20,000 | 138 | 67 | 57 | 334 | −5 | 156 | 144 | 10 | 22 | −25 | 96 | 180 | 20 | −20 | −20 |
| 5267 | 0.3900 | 8.5800 | | | | 13.5 | 88 | 3761 | 20,000 | 93 | 102 | 45 | 248 | −5 | 103 | 80 | 10 | 90 | −25 | 112 | 185 | 36 | −20 | −20 |
| 5268 | 0.1500 | 0.1200 | | | | 6.4 | 35 | 1534 | 1,439 | 7 | 43 | 8 | 5 | −5 | 39 | 34 | 2 | 49 | −25 | 292 | 230 | 85 | −20 | −20 |
| 5269 | | | | | | 1.6 | 8 | 196 | 142 | 9 | 7 | 1 | −2 | −5 | 8 | 16 | 1 | 22 | −25 | 228 | 207 | 36 | −20 | −20 |
| 5270 | 0.1100 | 0.0100 | | | | 3.8 | 6 | 1099 | 128 | 2 | 21 | −1 | −2 | −5 | −5 | 10 | 1 | 15 | −25 | 45 | 479 | 25 | −20 | −20 |
| 5271 | 0.0300 | <0.0100 | | | | 4.3 | 5 | 254 | 66 | 28 | 28 | −1 | −2 | −5 | 6 | 19 | 0 | 20 | −25 | 106 | 328 | 270 | −20 | −20 |
| 5272 | 0.0400 | 0.0300 | | | | 4.3 | 16 | 357 | 211 | 10 | 31 | 1 | −2 | −5 | 15 | 9 | 1 | 132 | −25 | 55 | 515 | 207 | −20 | −20 |
| 5273 | 0.0500 | 0.2600 | | | | 4.1 | 14 | 414 | 2,850 | 14 | 30 | −1 | 3 | −5 | 36 | 9 | 2 | 103 | −25 | 154 | 494 | 36 | −20 | −20 |
| 5274 | | | | | | 4.2 | 35 | 271 | 51 | 12 | 46 | 13 | −2 | 15 | 48 | 24 | 1 | 51 | −25 | 180 | 409 | 58 | −20 | −20 |
| 5275 | | | | | | 2.3 | 9 | 65 | 17 | 11 | 10 | −1 | −2 | 10 | 16 | 14 | 1 | 28 | −25 | 208 | 391 | 28 | −20 | −20 |
| 5276 | | | | | | 12.2 | 79 | 502 | 44 | 28 | 112 | −1 | −2 | 7 | 40 | 33 | 4 | 9 | −25 | 239 | 279 | 204 | −20 | −20 |
| 5277 | | | | | | 1.6 | 11 | 37 | 14 | 5 | 14 | 2 | −2 | 10 | −5 | 13 | 1 | 32 | −25 | 436 | 260 | 45 | −20 | −20 |
| 5278 | | | | | | 11.4 | 57 | 1354 | 46 | 45 | 44 | 1 | −2 | 8 | 35 | 27 | 7 | 53 | −25 | 419 | 183 | 209 | −20 | −20 |
| 5279 | | | | | | 1.8 | 13 | 63 | 6 | 11 | 13 | 1 | −2 | 7 | 16 | 16 | 1 | 29 | −25 | 245 | 286 | 35 | −20 | −20 |
| 5280 | | | | | | 9.0 | 29 | 537 | 13 | 15 | 43 | −1 | −2 | 6 | 19 | 20 | 4 | 12 | −25 | 413 | 165 | 122 | −20 | −20 |
| 5281 | | | | | | 1.6 | 6 | 54 | 9 | 4 | 10 | −1 | −2 | 12 | 8 | 13 | 0 | 32 | −25 | 213 | 435 | 15 | −20 | −20 |
| 5282 | | | | | | 11.8 | 50 | 572 | 27 | 31 | 54 | 2 | −2 | 9 | 34 | 16 | 4 | 15 | −25 | 369 | 346 | 213 | −20 | −20 |
| 5283 | | | | | | 2.7 | 11 | 70 | 16 | 14 | 22 | 1 | −2 | 7 | −5 | 14 | 1 | 42 | −25 | 424 | 473 | 31 | −20 | −20 |
| 5284 | | | | | | 1.4 | 35 | 233 | 121 | 16 | 12 | 3 | −2 | −5 | 44 | 11 | 6 | 219 | −25 | 790 | 80 | 84 | −20 | −20 |
| 5285 | | | | | | 0.7 | 4 | 51 | 7 | 2 | 5 | −1 | −2 | 9 | 19 | 12 | 0 | 25 | −25 | 1,706 | 301 | 8 | −20 | −20 |
| 5286 | | | | | | 0.8 | 4 | 55 | 4 | 9 | 9 | 1 | −2 | 15 | 32 | 10 | 1 | 28 | −25 | 762 | 267 | 11 | −20 | −20 |
| 5287 | | | | | | 0.9 | 5 | 5 | 15 | 8 | 10 | −1 | −2 | 6 | 8 | 7 | 1 | 91 | −25 | 233 | 279 | 8 | −20 | −20 |
| 5288 | | | | | | 2.1 | 89 | 509 | 139 | 8 | 50 | 22 | −2 | 12 | 44 | 23 | 9 | 1,336 | −25 | 782 | 328 | 272 | −20 | −20 |
| 5289 | | | | | | 2.5 | 19 | 101 | 790 | 5 | 23 | 4 | −2 | 13 | 35 | 19 | 1 | 134 | −25 | 2,000 | 317 | 49 | −20 | −20 |
| 5290 | | | | | | 1.2 | 27 | 129 | 196 | 16 | 10 | −1 | −2 | 14 | 113 | 19 | 9 | 163 | −25 | 899 | 53 | 63 | −20 | −20 |
| 5291 | 0.0900 | 0.5200 | | | | <0.5 | 20 | 803 | 5,252 | 15 | 11 | 4 | 21 | 7 | 6 | −5 | 3 | 864 | −25 | 377 | 251 | 85 | −20 | −20 |
| 5292 | 0.1300 | 0.4900 | | | | <0.5 | 30 | 1206 | 4,844 | 11 | 26 | 10 | 19 | 6 | 39 | 10 | 6 | 2,055 | −25 | 717 | 218 | 115 | −20 | −20 |
| 5293 | 0.2100 | 0.8100 | | | | 3.7 | 28 | 2001 | 7,852 | 13 | 6 | 2 | 47 | 6 | 11 | 42 | 3 | 928 | −25 | 540 | 225 | 77 | −20 | −20 |
| 5294 | 10.0000 | 18.9400 | | | | 50.0 | 374 | 10000 | 20,000 | 109 | 103 | 66 | 1289 | 113 | 101 | 880 | 3 | 113 | 30 | 118 | 112 | 18 | 118 | −20 |
| 5295 | | | | | | <0.5 | 24 | 1274 | 3,751 | 8 | 33 | 10 | 17 | 7 | 9 | 13 | 7 | 2,287 | −25 | 794 | 230 | 128 | 29 | −20 |
| 5296 | 0.3200 | 0.5500 | | | | 3.1 | 27 | 2675 | 5,674 | 8 | 23 | 6 | 36 | 11 | 15 | 45 | 5 | 1,526 | −25 | 1,038 | 268 | 97 | −20 | −20 |
| 5297 | 0.9500 | 0.4400 | | | | 7.0 | 20 | 8666 | 4,113 | 5 | 4 | −1 | 12 | 7 | −5 | 55 | 2 | 649 | −25 | 494 | 200 | 81 | −20 | −20 |
| 5298 | 0.3300 | 0.4000 | | | | 2.0 | 9 | 3109 | 3,887 | 5 | 9 | −1 | 13 | −5 | 14 | 33 | 3 | 932 | −25 | 560 | 213 | 78 | −20 | −20 |

APPENDIX. 1990–1991 CMD Sample Analytical Results

| Sample no. | Pb % | Zn % | Ba % | Cr % | Mn % | Ag ppm | Cu ppm | Pb ppm | Zn ppm | Mo ppm | Ni ppm | Co ppm | Cd ppm | Bi ppm | As ppm | Sb ppm | Fe % | Mn ppm | Te ppm | Ba ppm | Cr ppm | V ppm | Sn ppm | W ppm |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5299 | | | | | | <0.5 | 23 | 77 | 212 | 55 | 27 | 9 | −2 | −5 | 29 | −5 | 3 | 447 | −25 | 226 | 230 | 79 | −20 | −20 |
| 5300 | | | | | | <0.5 | 31 | 46 | 139 | −1 | 61 | 16 | −2 | −5 | −5 | −5 | 3 | 731 | −25 | 610 | 109 | 132 | −20 | −20 |
| 5301 | | | | | | 0.5 | 19 | 54 | 142 | 3 | 27 | 3 | −2 | −5 | 9 | −5 | 2 | 1,350 | −25 | 910 | 28 | 69 | −20 | −20 |
| 5302 | | | | | | <0.5 | 15 | 3 | 234 | 5 | 19 | 4 | −2 | −5 | −5 | −5 | 3 | 326 | −25 | 689 | 40 | 104 | −20 | −20 |
| 5303 | | | | | | <0.5 | 19 | 16 | 103 | 4 | 13 | 4 | −2 | −5 | 27 | 17 | 2 | 223 | −25 | 647 | 35 | 86 | −20 | −20 |
| 5304 | | | | | | <0.5 | 37 | 32 | 340 | 3 | 13 | 5 | −2 | −5 | −5 | −5 | 4 | 551 | −25 | 1,338 | 30 | 14 | −20 | −20 |
| 5305 | | | | | | 0.7 | 42 | 180 | 67 | 9 | 16 | −1 | −2 | −5 | 32 | 10 | 4 | 59 | −25 | 1,018 | 44 | 77 | −20 | −20 |
| 5306 | | | | | | 0.7 | 31 | 64 | 219 | 6 | 24 | 2 | −2 | 6 | 32 | 12 | 3 | 66 | −25 | 75 | 39 | 69 | −20 | −20 |
| 5307 | | | | | | 2.0 | 48 | 196 | 38 | 10 | 15 | −1 | −2 | −5 | 47 | 15 | 1 | 58 | −25 | 121 | 51 | 73 | −20 | −20 |
| 5308 | | | | | | 0.9 | 6 | 62 | 10 | 5 | 2 | −1 | −2 | 12 | 12 | −5 | 0 | 14 | −25 | 561 | 57 | 23 | −20 | −20 |
| 5309 | | | | | | 0.7 | 39 | 70 | 92 | 15 | 5 | −1 | −2 | −5 | 80 | 32 | 7 | 50 | −25 | 502 | 50 | 54 | −20 | −20 |
| 5310 | | | | | | 1.0 | 6 | 38 | 42 | 2 | 3 | 2 | −2 | −5 | −5 | 8 | 1 | 147 | −25 | 1,178 | 45 | 37 | −20 | −20 |
| 5311 | | | | | | 0.7 | 21 | 79 | 110 | 5 | 6 | −1 | −2 | −5 | 51 | 22 | 4 | 103 | −25 | 444 | 32 | 52 | −20 | −20 |
| 5312 | | | | | | 13.4 | 38 | 1821 | 31 | 14 | 49 | −1 | −2 | −5 | 21 | 22 | 1 | 17 | −25 | 176 | 123 | 64 | −20 | −20 |
| 5313 | | | | | | 2.6 | 9 | 331 | 200 | 4 | 4 | 2 | −2 | 9 | −5 | −5 | 1 | 19 | −25 | 864 | 155 | 66 | −20 | −20 |
| 5314 | | | | | | 10.1 | 63 | 2702 | 65 | 22 | 31 | −1 | −2 | −5 | 53 | 35 | 5 | 29 | −25 | 96 | 221 | 131 | −20 | −20 |
| 5315 | | | | | | 7.6 | 71 | 755 | 62 | 18 | 28 | 2 | −2 | 6 | 24 | 18 | 3 | 29 | −25 | 610 | 275 | 151 | −20 | −20 |
| 5316 | | | | | | 3.0 | 73 | 240 | 73 | 12 | 17 | 2 | −2 | 9 | 6 | −5 | 2 | 44 | −25 | 497 | 99 | 139 | −20 | −20 |
| 5317 | | | | | | 3.0 | 45 | 245 | 58 | 10 | 15 | 1 | −2 | −5 | 31 | −5 | 2 | 48 | −25 | 581 | 115 | 105 | −20 | −20 |
| 5318 | | | | | | 38.1 | 35 | 9702 | 2,535 | 13 | 3 | 1 | 7 | 6 | 143 | 16 | 8 | 15 | −25 | 487 | 128 | 18 | −20 | −20 |
| 5319 | 0.4700 | 0.1900 | | | | 16.4 | 14 | 4730 | 1,961 | −1 | 8 | −1 | 6 | 6 | 77 | 40 | 5 | 23 | 28 | 256 | 202 | 35 | −20 | −20 |
| 5320 | | | | | | 19.5 | 14 | 5083 | 4,479 | 14 | 7 | 3 | 12 | 12 | 84 | 11 | 2 | 15 | −25 | 165 | 132 | 20 | −20 | −20 |
| 5321 | | | | | | 2.6 | 46 | 2067 | 813 | 33 | 20 | 3 | −2 | −5 | 157 | 16 | 10 | 110 | −25 | 427 | 61 | 89 | −20 | −20 |
| 5322 | | | | | | 3.8 | 9 | 349 | 32 | 5 | 18 | 4 | −2 | 11 | −5 | 8 | 0 | 35 | −25 | 661 | 451 | 41 | −20 | −20 |
| 5323 | | | | | | 6.3 | 43 | 1180 | 102 | 15 | 21 | 2 | −2 | −5 | 28 | 48 | 3 | 249 | −25 | 190 | 109 | 162 | −20 | −20 |
| 5324 | | | | | | 1.9 | 16 | 346 | 70 | 2 | 17 | 3 | −2 | −5 | −5 | 8 | 1 | 58 | −25 | 2,000 | 320 | 43 | −20 | −20 |
| 5325 | | | | | | 8.2 | 52 | 2944 | 102 | 36 | 32 | −1 | −2 | −5 | 73 | 108 | 10 | 62 | −25 | 46 | 194 | 237 | −20 | −20 |
| 5326 | 1.5500 | 1.9700 | | | | 41.7 | 8 | 10000 | 19,403 | −1 | 10 | −1 | 29 | 21 | 78 | 77 | 1 | 50 | −25 | 180 | 402 | 11 | −20 | −20 |
| 5327 | | | | | | 27.3 | 51 | 10000 | 1,274 | 48 | 12 | 1 | −2 | −5 | 220 | 105 | 5 | 145 | −25 | 145 | 88 | 154 | −20 | −20 |
| 5328 | 2.1900 | 4.6900 | | | | 50.0 | 36 | 10000 | 20,000 | 18 | 14 | 15 | 153 | 37 | 97 | 96 | 2 | 59 | 64 | 113 | 435 | 8 | −20 | −20 |
| 5329 | | | | | | 7.0 | 62 | 2052 | 287 | 19 | 19 | 4 | −2 | −5 | 23 | 25 | 3 | 391 | −25 | 990 | 79 | 132 | −20 | −20 |
| 5330 | | | | | | 4.9 | 66 | 63 | 234 | 15 | 71 | 23 | 3 | 8 | 30 | 11 | 3 | 2,777 | −25 | 374 | 197 | 213 | −20 | −20 |
| 5331 | | | | | | 7.3 | 72 | 75 | 232 | 18 | 57 | 4 | −2 | 18 | 42 | 18 | 3 | 111 | −25 | 1,646 | 306 | 268 | −20 | −20 |
| 5332 | | | | | | 2.3 | 3 | 174 | 19 | 7 | 4 | −1 | −2 | 12 | 30 | 45 | 1 | 18 | −25 | 1,306 | 105 | 34 | −20 | −20 |
| 5333 | | | | | | 5.3 | 20 | 187 | 13 | 12 | 11 | −1 | −2 | 6 | 49 | 62 | 2 | 14 | −25 | 353 | 32 | 62 | −20 | −20 |
| 5334 | | | | | | 5.2 | 16 | 374 | 402 | 5 | 11 | 2 | 2 | 9 | 14 | 26 | 1 | 38 | −25 | 524 | 410 | 28 | −20 | −20 |
| 5335 | | | | | | 6.0 | 40 | 1323 | 26 | 12 | 34 | −1 | −2 | 16 | 24 | 39 | 1 | 27 | −25 | 458 | 88 | 94 | −20 | −20 |
| 5336 | | | | | | 6.3 | 10 | 1087 | 39 | 12 | 13 | −1 | −2 | 8 | 20 | 32 | 1 | 32 | −25 | 386 | 357 | 32 | −20 | −20 |
| 5337 | | | | | | 16.9 | 52 | 4851 | 106 | 15 | 27 | −1 | −2 | 14 | 25 | 136 | 1 | 31 | −25 | 938 | 134 | 104 | −20 | 23 |
| 5338 | | | | | | 5.1 | 19 | 1278 | 393 | 31 | 17 | 3 | 4 | 14 | 54 | 34 | 1 | 44 | −25 | 988 | 461 | 42 | −20 | −20 |
| 5339 | | | | | | 2.6 | 73 | 166 | 49 | 9 | 39 | 3 | −2 | 8 | 21 | 11 | 1 | 34 | −25 | 1,023 | 177 | 140 | −20 | −20 |
| 5340 | | | | | | | | | | | | | | | | | | | | | | | | |
| 5341 | | | | | | 2.0 | 10 | 23 | 6 | 15 | 16 | 2 | −2 | 9 | 7 | 7 | 0 | 35 | −25 | 671 | 386 | 25 | −20 | −20 |
| 5342 | | | | | | 2.5 | 378 | 170 | 77 | 13 | 24 | 3 | −2 | −5 | 11 | −5 | 3 | 101 | −25 | 883 | 90 | 151 | −20 | −20 |
| 5343 | | | | | | 2.7 | 7 | 155 | 5 | 7 | 8 | −1 | −2 | −5 | 62 | 45 | 2 | 32 | −25 | 159 | 157 | 27 | −20 | −20 |
| 5344 | | | | | | 12.6 | 56 | 187 | 13 | 16 | 5 | −1 | −2 | 9 | 35 | 205 | 4 | 35 | −25 | 253 | 34 | 71 | −20 | −20 |
| 5345 | 0.0100 | 0.8100 | | | | 0.7 | 5 | 9 | 60 | 5 | 13 | 2 | −2 | −5 | 19 | 11 | 1 | 267 | −25 | 55 | 424 | 10 | −20 | −20 |
| 5346 | | | | | | <0.5 | 4 | 9 | 187 | 7 | 7 | 5 | −2 | −5 | 25 | −5 | 2 | 358 | −25 | 1,452 | 61 | 44 | −20 | −20 |
| 5347 | | | | | | 1.5 | 11 | −2 | 23 | 11 | 12 | −1 | −2 | 8 | 8 | −5 | 1 | 31 | −25 | 1,082 | 344 | 29 | −20 | −20 |
| 5348 | | | | | | 1.3 | 90 | 187 | 83 | 13 | 40 | 21 | −2 | −5 | −5 | 8 | 5 | 698 | −25 | 2,000 | 104 | 172 | −20 | −20 |
| 5349 | | | | | | 1.5 | 13 | 27 | 7 | 6 | 16 | −1 | −2 | 9 | −5 | −5 | 1 | 38 | −25 | 390 | 384 | 36 | −20 | −20 |
| 5350 | | | | | | 5.3 | 82 | 336 | 56 | 43 | 46 | 10 | −2 | 22 | 56 | 18 | 4 | 703 | −25 | 292 | 156 | 178 | −20 | −20 |
| 5351 | | | | | | 4.5 | 11 | −2 | 69 | 13 | 25 | 1 | −2 | 8 | −5 | 10 | 1 | 44 | −25 | 277 | 456 | 39 | −20 | −20 |
| 5352 | | | | | | 10.9 | 58 | 285 | 42 | 31 | 70 | −1 | −2 | 14 | 58 | 28 | 3 | 60 | −25 | 340 | 312 | 195 | −20 | −20 |
| 5353 | | | | | | 2.7 | 10 | 35 | 9 | 6 | 16 | 1 | −2 | 9 | 13 | −5 | 1 | 52 | −25 | 296 | 569 | 28 | −20 | −20 |
| 5354 | | | | | | 12.4 | 76 | 323 | 39 | 27 | 65 | −1 | −2 | 15 | 57 | 17 | 3 | 82 | −25 | 323 | 411 | 209 | −20 | −20 |
| 5355 | | | | | | 2.2 | 23 | 18 | 21 | 13 | 27 | 3 | −2 | 13 | 30 | 13 | 2 | 124 | −25 | 1,068 | 451 | 67 | −20 | −20 |
| 5356 | | | | | | 8.4 | 74 | 493 | 10 | 25 | 26 | 1 | −2 | 19 | 79 | 21 | 10 | 25 | −25 | 207 | 194 | 126 | −20 | −20 |

| Sample no. | Pb % | Zn % | Ba % | Cr % | Mn % | Ag ppm | Cu ppm | Pb ppm | Zn ppm | Mo ppm | Ni ppm | Co ppm | Cd ppm | Bi ppm | As ppm | Sb ppm | Fe % | Mn ppm | Te ppm | Ba ppm | Cr ppm | V ppm | Sn ppm | W ppm |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5357 | | | | | | 11.2 | 17 | 2412 | 1,175 | 6 | 12 | 2 | 6 | −5 | 40 | 44 | 1 | 47 | −25 | 487 | 365 | 34 | −20 | −20 |
| 5358 | 0.0400 | 0.1900 | | | | 9.3 | 17 | 304 | 2,005 | 10 | 8 | 1 | 13 | −5 | −5 | 24 | 1 | (5) | −25 | 319 | 337 | 29 | −20 | −20 |
| 5359 | | | | | | 5.9 | 11 | 580 | 21 | 6 | 22 | 1 | −2 | −5 | 15 | 29 | 1 | 47 | −25 | 400 | 457 | 23 | −20 | −20 |
| 5360 | | | | | | 12.1 | 41 | 1642 | 44 | 7 | 32 | 1 | −2 | 16 | 44 | 42 | 1 | 126 | −25 | 568 | 46 | 61 | −20 | −20 |
| 5361 | | | | | | 2.0 | 44 | 318 | 143 | 7 | 17 | 1 | −2 | 7 | 29 | 35 | 3 | 46 | −25 | 1,081 | 27 | 77 | −20 | −20 |
| 5362 | | | | | | 3.2 | 31 | 189 | 316 | 8 | 26 | 3 | −2 | 15 | 53 | 25 | 3 | 233 | −25 | 919 | 30 | 76 | −20 | −20 |
| 5363 | | | | | | 2.4 | 21 | 48 | 183 | 10 | 13 | 9 | −2 | 15 | 63 | 33 | 4 | 329 | −25 | 128 | 81 | 48 | −20 | −20 |
| 5364 | 1.7100 | 3.5000 | | | | 3.0 | 45 | 290 | 146 | 10 | 22 | 2 | −2 | −5 | 191 | 40 | 4 | 84 | −25 | 1,356 | 30 | 83 | 33 | −20 |
| 5365 | | | | | | 8.5 | 7 | 161 | 62 | 13 | 16 | 1 | −2 | 9 | 9 | 27 | 1 | 39 | −25 | 135 | 338 | 16 | −20 | −20 |
| 5366 | 9.8100 | 0.5100 | | | | 50.0 | 26 | 10000 | 5,273 | 4 | 60 | 15 | 12 | −5 | 75 | 179 | 3 | (5) | −25 | 70 | 152 | 74 | −20 | −20 |
| 5367 | | | | | | <0.5 | 14 | 156 | 196 | 6 | 20 | 7 | −2 | 7 | 25 | 9 | 8 | 337 | −25 | 60 | 124 | 85 | −20 | −20 |
| 5368 | | | | | | 1.7 | 6 | 588 | 41 | 3 | 6 | −1 | −2 | 6 | 20 | 10 | 0 | 44 | −25 | 1,591 | 298 | 40 | −20 | −20 |
| 5369 | | | | | | 1.4 | 25 | 121 | 37 | 10 | 12 | 3 | −2 | 13 | 45 | 11 | 3 | 292 | −25 | 784 | 81 | 123 | −20 | −20 |
| 5370 | | | | | | 2.1 | 7 | 128 | 7 | 15 | 11 | 2 | −2 | −5 | 30 | 12 | 1 | 50 | −25 | 312 | 394 | 17 | −20 | −20 |
| 5371 | | | | | | 6.9 | 30 | 327 | 30 | 21 | 28 | 2 | −2 | 11 | 113 | 110 | 9 | 245 | −25 | 576 | 69 | 86 | −20 | −20 |
| 5372 | | | | | | 2.3 | 5 | 97 | 5 | 3 | 5 | −1 | −2 | 5 | 16 | 14 | 1 | 39 | −25 | 668 | 146 | 24 | −20 | −20 |
| 5373 | | | | | | 2.6 | 98 | 191 | 160 | 9 | 56 | 22 | −2 | 22 | 48 | 24 | 8 | 1,607 | −25 | 485 | 279 | 247 | −20 | −20 |
| 5374 | | | | | | 1.7 | 4 | 104 | 7 | 5 | 7 | −1 | −2 | −5 | 33 | 19 | 1 | 29 | −25 | 313 | 120 | 17 | −20 | −20 |
| 5375 | | | | | | 3.1 | 8 | 413 | 15 | 4 | 11 | −1 | −2 | 6 | 8 | 17 | 1 | 36 | −25 | 255 | 370 | 23 | −20 | −20 |
| 5376 | | | | | | 1.1 | 51 | 18 | 19 | 15 | 13 | 1 | −2 | 19 | 83 | 18 | 6 | 23 | −25 | 994 | 82 | 157 | 20 | −20 |
| 5377 | | | | | | 1.6 | 9 | 84 | 12 | 8 | 5 | −1 | −2 | 9 | 19 | 11 | 1 | 26 | −25 | 539 | 191 | 45 | −20 | −20 |
| 5378 | | | | | | 1.1 | 6 | 68 | 12 | 3 | 5 | 1 | −2 | −5 | 11 | 14 | 1 | 24 | −25 | 403 | 241 | 43 | −20 | −20 |
| 5379 | | | | | | 1.5 | 11 | 123 | 5 | 9 | 12 | −1 | −2 | 11 | 12 | 5 | 1 | 33 | −25 | 195 | 289 | 26 | −20 | −20 |
| 5380 | | | | | | 8.5 | 58 | 435 | 38 | 31 | 17 | 3 | −2 | 29 | 64 | 41 | 10 | 182 | −25 | 542 | 180 | 196 | 28 | −20 |
| 5381 | | | | | | 1.0 | 9 | 90 | 117 | 2 | 8 | 1 | −2 | 8 | 7 | 17 | 1 | 33 | −25 | 612 | 177 | 54 | −20 | −20 |
| 5382 | | | | | | 2.2 | 47 | 191 | 51 | 36 | 22 | 5 | −2 | −5 | 42 | 10 | 10 | 260 | −25 | 532 | 154 | 171 | −20 | −20 |
| 5383 | | | | | | 1.2 | 9 | 54 | 6 | 7 | 10 | −1 | −2 | −5 | −5 | 13 | 1 | 51 | −25 | 676 | 211 | 51 | −20 | −20 |
| 5384 | | | | | | 2.1 | 44 | 257 | 95 | 23 | 25 | 8 | −2 | 15 | 44 | 9 | 8 | 624 | −25 | 828 | 179 | 200 | −20 | −20 |
| 5385 | | | | | | 8.0 | 35 | 925 | 45 | 25 | 56 | −1 | −2 | −5 | 42 | 18 | 4 | 32 | −25 | 376 | 207 | 176 | −20 | −20 |
| 5386 | | | | | | 3.7 | 7 | 18 | 5 | 5 | 22 | −1 | −2 | 6 | 6 | 11 | 0 | 29 | −25 | 164 | 370 | 40 | −20 | −20 |
| 5387 | | | | | | 10.4 | 43 | 576 | 15 | 28 | 60 | −1 | −2 | 10 | 32 | 23 | 3 | 14 | −25 | 504 | 185 | 150 | −20 | −20 |
| 5388 | | | | | | 2.8 | 10 | 52 | 10 | 13 | 18 | −1 | −2 | 12 | 12 | 12 | 1 | 43 | −25 | 923 | 289 | 74 | −20 | −20 |
| 5389 | | | | | | 11.1 | 51 | 418 | 11 | 29 | 43 | −1 | −2 | 16 | 57 | 19 | 2 | 16 | −25 | 378 | 198 | 174 | −20 | −20 |
| 5390 | | | | | | 10.1 | 67 | 581 | 15 | 22 | 39 | 2 | −2 | 19 | 45 | 17 | 2 | 18 | −25 | 810 | 243 | 201 | −20 | −20 |
| 5391 | | | | | | 2.2 | 15 | 355 | 16 | 11 | 16 | 1 | −2 | 10 | 34 | 23 | 1 | 42 | −25 | 482 | 263 | 60 | −20 | −20 |
| 5392 | 2.6200 | 5.1400 | | | | 28.6 | 39 | 10000 | 20,000 | 97 | 29 | 25 | 120 | −5 | 98 | 103 | 2 | 164 | −25 | 160 | 452 | 69 | 21 | −20 |
| 5393 | 2.8800 | 10.0000 | | | | 43.2 | 70 | 10000 | 20,000 | 482 | 90 | 46 | 258 | −5 | 189 | 269 | 4 | 258 | −25 | 180 | 458 | 90 | 43 | −20 |
| 5394 | 0.2900 | 2.7900 | | | | 11.5 | 38 | 3045 | 20,000 | 199 | 58 | 23 | 74 | −5 | 90 | 110 | 2 | 117 | −25 | 602 | 464 | 157 | 31 | −20 |
| 5395 | 0.1800 | 0.6000 | | | | 8.8 | 30 | 1752 | 6,635 | 22 | 19 | 4 | 23 | −5 | 43 | 40 | 1 | 66 | −25 | 78 | 432 | 64 | −20 | −20 |
| 5396 | 0.3400 | 4.8600 | | | | 17.2 | 66 | 3366 | 20,000 | 97 | 100 | 30 | 131 | −5 | 177 | 104 | 10 | 304 | −25 | 133 | 246 | 51 | 45 | −20 |
| 5397 | 0.1500 | 0.2800 | | | | 5.8 | 40 | 1355 | 2,965 | 4 | 47 | 12 | 8 | −5 | 24 | 30 | 1 | 35 | −25 | 68 | 279 | 67 | −20 | −20 |
| 5398 | 0.0800 | 0.0900 | | | | 4.2 | 22 | 701 | 724 | 14 | 38 | 6 | 4 | −5 | 8 | 23 | 1 | 82 | −25 | 147 | 410 | 53 | −20 | −20 |
| 5399 | 9.6600 | 0.0800 | | | | 50.0 | 35 | 10000 | 770 | 1 | 8 | −1 | −2 | −5 | −5 | 480 | 2 | 85 | −25 | 93 | 343 | 60 | −20 | −20 |
| 5400 | 0.2000 | 3.0500 | | | | 14.3 | 35 | 2017 | 20,000 | 45 | 21 | 8 | 67 | −5 | 30 | 58 | 1 | 58 | −25 | 47 | 325 | 38 | −20 | −20 |
| 5401 | 0.8600 | 0.2800 | | | | 2.2 | 55 | 7724 | 2,800 | 14 | 21 | 4 | 7 | −5 | −5 | 26 | 5 | 844 | −25 | 321 | 191 | 75 | −20 | −20 |
| 5402 | | | | | | 14.6 | 72 | 2774 | 1,139 | 4 | 51 | 22 | −2 | −5 | 8 | 52 | 3 | 1,223 | −25 | 549 | 113 | 140 | −20 | −20 |
| 5403 | | | | | | 0.5 | 34 | 298 | 2,765 | 9 | 21 | 6 | 4 | −5 | −5 | 19 | 4 | 516 | −25 | 915 | 179 | 62 | −20 | −20 |
| 5404 | | | | | | <0.5 | 37 | 578 | 1,403 | 3 | 56 | 39 | 24 | −5 | −5 | −5 | 3 | 2,150 | −25 | 650 | 98 | 108 | −20 | −20 |
| 5405 | | | | | | <0.5 | 18 | 175 | 1,066 | 6 | 23 | 6 | −2 | −5 | −5 | 10 | 3 | 470 | −25 | 252 | 201 | 67 | −20 | −20 |
| 5406 | | | | | | <0.5 | 37 | 238 | 352 | 2 | 53 | 23 | −2 | −5 | 25 | −5 | 2 | 1,154 | −25 | 635 | 105 | 118 | −20 | −20 |
| 5407 | | | | | | 3.0 | 18 | 434 | 1,851 | 6 | 12 | 3 | −2 | −5 | 28 | 30 | 3 | 397 | −25 | 617 | 262 | 54 | 20 | −20 |
| 5408 | | | | | | 0.5 | 52 | 471 | 1,031 | −1 | 60 | 32 | 11 | −5 | 50 | −5 | 3 | 1,645 | −25 | 570 | 110 | 124 | 22 | 216 |
| 5409 | | | | | | <0.5 | 18 | 180 | 1,430 | 3 | 37 | 15 | 2 | −5 | −5 | 13 | 6 | 1,286 | −25 | 283 | 187 | 69 | −20 | −20 |
| 5410 | | | | | | <0.5 | 44 | 209 | 665 | −1 | 50 | 22 | 4 | −5 | 18 | −5 | 3 | 806 | −25 | 668 | 98 | 120 | −20 | 58 |
| 5411 | | | | | | 3.7 | 15 | 533 | 975 | 1 | 4 | 1 | −2 | −5 | 13 | 36 | 2 | 327 | −25 | 448 | 221 | 64 | −20 | −20 |
| 5412 | | | | | | 1.2 | 51 | 1203 | 1,265 | 1 | 39 | 20 | 6 | −5 | 31 | −5 | 3 | 937 | −25 | 1,464 | 89 | 100 | −20 | −20 |
| 5413 | | | | | | <0.5 | 14 | 581 | 1,043 | 3 | 23 | 6 | −2 | 6 | 9 | 14 | 3 | 823 | −25 | 306 | 237 | 77 | −20 | −20 |
| 5414 | | | | | | 1.7 | 25 | 616 | 3,087 | 5 | 16 | 3 | 7 | −5 | 9 | 17 | 4 | 852 | −25 | 1,979 | 227 | 74 | −20 | −20 |

APPENDIX. 1990–1991 CMD Sample Analytical Results

| Sample no. | Pb % | Zn % | Ba % | Cr % | Mn % | Ag ppm | Cu ppm | Pb ppm | Zn ppm | Mo ppm | Ni ppm | Co ppm | Cd ppm | Bi ppm | As ppm | Sb ppm | Fe % | Mn ppm | Te ppm | Ba ppm | Cr ppm | V ppm | Sn ppm | W ppm |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5415 | | | | | | 1.3 | 54 | 682 | 2,213 | 2 | 57 | 27 | 12 | −5 | −5 | −5 | 4 | 1,401 | −25 | 701 | 107 | 124 | −20 | −20 |
| 5416 | 0.0500 | 0.2200 | | | | <0.5 | 12 | 434 | 2,093 | 5 | 28 | 10 | 7 | −5 | 16 | 6 | 4 | 1,283 | −25 | 361 | 218 | 64 | −20 | −20 |
| 5417 | | | | | | <0.5 | 28 | 128 | 873 | 2 | 39 | 16 | −2 | −5 | −5 | 6 | 6 | 1,003 | −25 | 346 | 218 | 98 | −20 | −20 |
| 5418 | | | | | | <0.5 | 16 | 31 | 154 | 3 | 36 | 13 | −2 | −5 | −5 | −5 | 4 | 700 | −25 | 304 | 211 | 84 | −20 | −20 |
| 5419 | | | | | | <0.5 | 11 | 49 | 754 | 1 | 38 | 16 | −2 | 6 | −5 | −5 | 6 | 990 | −25 | 244 | 240 | 75 | −20 | −20 |
| 5420 | | | | | | <0.5 | 16 | 55 | 353 | 3 | 53 | 20 | −2 | −5 | −5 | −5 | 7 | 1,474 | −25 | 296 | 180 | 82 | −20 | −20 |
| 5421 | 3.0800 | 0.5700 | | | | 28.3 | 27 | 10000 | 5,316 | 5 | 35 | 11 | 25 | −5 | 26 | 124 | 6 | 2,225 | −25 | 553 | 170 | 55 | −20 | −20 |
| 5422 | 1.4100 | 0.0900 | | | | 20.0 | 34 | 10000 | 867 | −1 | 33 | 2 | 8 | −5 | 81 | 245 | 2 | 360 | −25 | 332 | 288 | 43 | −20 | −20 |
| 5423 | 0.4000 | 0.4500 | | | | 4.7 | 101 | 3852 | 4,375 | 6 | 15 | 2 | 12 | −5 | −5 | 46 | 6 | 1,135 | −25 | 728 | 231 | 77 | 21 | −20 |
| 5424 | <0.0100 | 0.2300 | | | | <0.5 | 17 | 96 | 2,247 | 4 | 40 | 13 | 13 | −5 | −5 | −5 | 4 | 893 | −25 | 276 | 223 | 79 | −20 | −20 |
| 5425 | 2.1200 | 1.4500 | | | | 50.0 | 118 | 10000 | 14,207 | 17 | −1 | 3 | 72 | 17 | −5 | 73 | 1 | 68 | −25 | 597 | 332 | 22 | 23 | −20 |
| 5426 | 3.4600 | 9.0300 | | | | 50.0 | 223 | 10000 | 20,000 | 112 | 159 | 11 | 467 | 60 | 97 | 574 | 2 | 425 | −25 | 390 | 171 | 108 | 55 | −20 |
| 5427 | 3.7900 | 54.2300 | | | | 50.0 | 886 | 10000 | 20,000 | 233 | 14 | 84 | 2000 | 208 | 192 | 778 | 3 | 33 | 73 | 74 | 99 | 10 | 183 | −20 |
| 5428 | 6.6700 | 5.0100 | | | | 50.0 | 128 | 10000 | 20,000 | 46 | 13 | 9 | 248 | 36 | 54 | 96 | 2 | 205 | −25 | 471 | 244 | 93 | 42 | −20 |
| 5429 | 1.5800 | 1.1700 | | | | 34.4 | 78 | 10000 | 11,191 | 13 | 34 | 4 | 60 | 15 | 36 | 169 | 3 | 422 | −25 | 694 | 270 | 115 | 30 | −20 |
| 5430 | 4.2500 | 1.5200 | | | | 50.0 | 51 | 10000 | 15,012 | 17 | 12 | 4 | 86 | 17 | −5 | 106 | 3 | 634 | −25 | 172 | 230 | 90 | 35 | −20 |
| 5431 | 0.1700 | 0.3200 | | | | 3.0 | 17 | 1849 | 10,080 | 11 | 33 | 8 | 60 | 17 | 21 | 8 | 5 | 1,469 | −25 | 1,099 | 167 | 109 | −20 | −20 |
| 5432 | 0.8200 | 10.0000 | | | | 50.0 | 359 | 8765 | 20,000 | 311 | 2 | 82 | 2000 | 247 | 224 | 621 | 3 | 50 | 413 | 75 | 85 | 14 | 165 | 1002 |
| 5433 | 4.3100 | 0.1200 | | | | 50.0 | 168 | 10000 | 518 | −1 | 24 | 2 | 2 | −5 | 79 | 165 | 1 | 69 | −25 | 184 | 264 | 34 | −20 | −20 |
| 5434 | 0.2500 | 10.0000 | | | | 50.0 | 243 | 2300 | 20,000 | 60 | −1 | 17 | 889 | 108 | 80 | 272 | 1 | 20 | 49 | 336 | 182 | 16 | 67 | −20 |
| 5435 | 0.1000 | 10.0000 | | | | 50.0 | 71 | 867 | 20,000 | 99 | −1 | 26 | 1000 | 143 | 81 | 113 | 1 | 18 | 37 | 179 | 219 | 15 | 66 | −20 |
| 5436 | 0.1100 | 0.1600 | | | | 2.5 | 4 | 733 | 1,467 | −1 | 7 | 7 | 6 | −5 | −5 | 13 | 0 | 48 | −25 | 2,000 | 242 | 12 | −20 | −20 |
| 5437 | 0.6900 | 10.0000 | | | | 50.0 | 138 | 7486 | 20,000 | 51 | −1 | 25 | 946 | 123 | 64 | 112 | 1 | 19 | −25 | 311 | 308 | 7 | 59 | −20 |
| 5438 | 0.0600 | 10.0000 | | | | 50.0 | 535 | 607 | 20,000 | 151 | 23 | 123 | 2000 | 239 | 206 | 306 | 2 | 10 | 80 | 90 | 93 | 3 | 103 | 256 |
| 5439 | 0.7200 | 10.0000 | | | | 50.0 | 165 | 7996 | 20,000 | 139 | 3 | 39 | 1595 | 191 | 145 | 163 | 1 | 21 | 66 | 141 | 275 | −2 | 86 | −20 |
| 5440 | 0.0900 | 0.2000 | | | | 2.5 | 6 | 817 | 2,311 | −1 | 12 | 12 | 10 | −5 | −5 | 5 | 0 | 154 | −25 | 2,000 | 416 | 16 | −20 | −20 |
| 5441 | 1.5400 | 10.0000 | | | | 50.0 | 160 | 10000 | 20,000 | 38 | −1 | 23 | 583 | 86 | 58 | 143 | 1 | 22 | 48 | 378 | 343 | 13 | 44 | −20 |
| 5442 | 1.1400 | 10.0000 | | | | 50.0 | 284 | 10000 | 20,000 | 51 | −1 | 30 | 799 | 112 | 78 | 166 | 1 | 19 | −25 | 267 | 250 | 8 | 68 | −20 |
| 5443 | 10.0000 | 0.0600 | | | | 50.0 | 332 | 10000 | 729 | 36 | 211 | 40 | 7 | 16 | 334 | 961 | 0 | 10 | 35 | 135 | 201 | 8 | −20 | −20 |
| 5444 | 0.1000 | 2.2200 | | | | 8.2 | 1,746 | 1626 | 20,000 | −1 | 5 | 11 | 207 | 30 | 50 | 43 | 1 | 31 | −25 | 167 | 500 | 16 | 24 | −20 |
| 5445 | 0.4900 | 10.0000 | | | | 12.9 | 330 | 5765 | 20,000 | 136 | −1 | 166 | 2000 | 226 | 157 | 132 | 2 | 26 | 41 | 33 | 248 | −2 | 96 | −20 |
| 5446 | 0.7600 | 2.8600 | | | | 11.5 | 470 | 8503 | 20,000 | −1 | 2 | 16 | 135 | 36 | 70 | 32 | 2 | 30 | −25 | 52 | 528 | 14 | 30 | −20 |
| 5447 | 1.9600 | 10.0000 | | | | 15.1 | 259 | 10000 | 20,000 | 48 | 3 | 44 | 975 | 120 | 144 | 75 | 2 | 197 | 39 | 86 | 430 | 19 | 55 | −20 |
| 5448 | 0.8600 | 10.0000 | | | | 8.3 | 563 | 10000 | 20,000 | 98 | 23 | 88 | 2000 | 179 | 125 | 101 | 1 | 26 | 41 | 88 | 402 | 19 | 77 | −20 |
| 5449 | 0.0400 | 7.7900 | | | | 17.2 | 558 | 560 | 20,000 | 25 | 3 | 30 | 702 | 71 | 89 | 112 | 2 | 31 | −25 | 60 | 518 | 14 | 56 | −20 |
| 5450 | 0.0600 | 0.4700 | | | | 1.7 | 339 | 559 | 4,472 | −1 | −1 | 3 | 26 | 7 | −5 | −5 | 1 | 22 | −25 | 81 | 479 | 12 | −20 | −20 |
| 5451 | 0.0100 | 0.6600 | | | | 3.6 | 3,594 | 148 | 6,952 | −1 | 5 | 10 | 58 | 8 | 47 | 9 | 1 | 29 | −25 | 43 | 628 | 11 | −20 | −20 |
| 5452 | 0.0200 | 0.4300 | | | | 0.9 | 513 | 243 | 4,708 | −1 | −1 | 4 | 29 | 12 | 39 | −5 | 1 | 34 | −25 | 51 | 612 | 10 | −20 | −20 |
| 5453 | 0.4400 | 0.5400 | | | | 4.9 | 131 | 4580 | 5,047 | −1 | −1 | 6 | 35 | −5 | 43 | −5 | 1 | 18 | −25 | 16 | 458 | 6 | −20 | −20 |
| 5454 | 10.0000 | 0.7900 | | | | 50.0 | 2,905 | 10000 | 8,054 | −1 | 23 | 10 | 49 | 24 | 69 | 350 | 1 | 23 | 30 | 94 | 473 | 24 | −20 | −20 |
| 5455 | 10.0000 | 0.7000 | | | | 50.0 | 2,798 | 10000 | 7,799 | −1 | 143 | 22 | 46 | 34 | 102 | 2000 | 0 | 11 | 55 | 29 | 172 | 11 | −20 | −20 |
| 5456 | 0.9100 | 2.2800 | | | | 4.7 | 497 | 10000 | 12,924 | −1 | 19 | 10 | 154 | 14 | 28 | 25 | 1 | 32 | −25 | 259 | 469 | 65 | −20 | −20 |
| 5457 | 0.2400 | <0.0100 | | | | 26.1 | 14,560 | 2372 | 127 | 13 | 64 | 39 | −2 | 23 | 43 | 19 | 3 | 30 | −25 | 25 | 517 | 6 | 36 | −20 |
| 5458 | 0.0200 | 2.9500 | | | | 20.0 | 20,000 | 478 | 20,000 | −1 | 23 | 17 | 108 | 65 | 93 | 32 | 4 | 150 | −25 | 31 | 421 | 6 | 30 | −20 |
| 5459 | 3.2700 | 43.9000 | | | | 50.0 | 404 | 10000 | 20,000 | 147 | 11 | 64 | 1274 | 220 | 174 | 402 | 3 | 20 | 92 | 11 | 200 | −2 | 84 | −20 |
| 5460 | 0.4100 | 0.0700 | | | | 19.3 | 140 | 3764 | 1,136 | −1 | −1 | 2 | 3 | −5 | −5 | 34 | 1 | 38 | −25 | 106 | 414 | 19 | −20 | −20 |
| 5461 | 0.2200 | 0.2400 | | | | 7.1 | 55 | 2071 | 2,428 | −1 | 1 | 3 | 6 | −5 | −5 | 24 | 2 | 230 | −25 | 169 | 401 | 29 | −20 | −20 |
| 5462 | 0.0700 | 0.1300 | | | | 3.8 | 21 | 502 | 868 | −1 | −1 | −1 | 7 | −5 | −5 | 25 | 1 | 13 | −25 | 198 | 242 | 33 | −20 | −20 |
| 5464 | 0.0300 | 10.0000 | | | | 50.0 | 652 | 377 | 20,000 | 72 | −1 | 66 | 782 | 133 | 95 | 144 | 4 | 35 | 53 | 219 | 233 | 11 | 62 | −20 |
| 5502 | | | | | | <0.5 | 16 | 50 | 229 | 2 | 28 | 7 | −2 | 6 | −5 | −5 | 3 | 601 | −25 | 210 | 260 | 74 | −20 | −20 |
| 5503 | | | | | | <0.5 | 43 | 25 | 110 | 1 | 54 | 34 | −2 | −5 | −5 | −5 | 4 | 1,746 | −25 | 416 | 106 | 123 | −20 | −20 |
| 5504 | | | | | | <0.5 | 19 | 70 | 1,493 | 4 | 16 | 5 | 7 | −5 | −5 | 8 | 3 | 449 | −25 | 192 | 349 | 62 | 23 | −20 |
| 5505 | | | | | | <0.5 | 13 | 302 | 956 | 3 | 43 | 4 | −2 | 12 | 16 | 21 | 3 | 1,003 | −25 | 366 | 243 | 76 | −20 | −20 |
| 5506 | | | | | | <0.5 | 33 | 131 | 628 | −1 | 64 | 23 | 3 | −5 | 27 | −5 | 3 | 2,119 | −25 | 681 | 98 | 96 | −20 | −20 |
| 5507 | | | | | | <0.5 | 7 | 104 | 702 | 3 | 29 | 5 | −2 | −5 | −5 | −5 | 6 | 2,826 | −25 | 448 | 215 | 80 | −20 | −20 |
| 5508 | 10.0000 | 10.0000 | | | | 50.0 | 426 | 10000 | 20,000 | 160 | 505 | 50 | 1439 | 130 | 226 | 2000 | 2 | 155 | 41 | 36 | 173 | 18 | 119 | −20 |
| 5509 | | | | | | <0.5 | 52 | 53 | 253 | −1 | 66 | 24 | −2 | −5 | 14 | −5 | 4 | 1,131 | −25 | 675 | 130 | 132 | −20 | −20 |
| 5510 | | | | | | 3.2 | 7 | 495 | 1,204 | 3 | 33 | 5 | 4 | 6 | 10 | 45 | 5 | 1,380 | −25 | 284 | 284 | 67 | 21 | −20 |

APPENDIX. 1990–1991 CMD Sample Analytical Results

| Sample no. | Pb % | Zn % | Ba % | Cr % | Mn % | Ag ppm | Cu ppm | Pb ppm | Zn ppm | Mo ppm | Ni ppm | Co ppm | Cd ppm | Bi ppm | As ppm | Sb ppm | Fe % | Mn ppm | Te ppm | Ba ppm | Cr ppm | V ppm | Sn ppm | W ppm |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5511 | | | | | | <0.5 | 46 | 129 | 211 | −1 | 59 | 18 | −2 | −5 | −5 | 6 | 4 | 1,159 | −25 | 534 | 111 | 103 | −20 | −20 |
| 5512 | | | | | | 6.0 | 5 | 1262 | 935 | 2 | 31 | 4 | 5 | −5 | 37 | 96 | 3 | 837 | −25 | 284 | 344 | 79 | 22 | −20 |
| 5513 | | | | | | <0.5 | 14 | 85 | 411 | −1 | 25 | 7 | −2 | 6 | −5 | 21 | 4 | 906 | −25 | 208 | 276 | 67 | −20 | −20 |
| 5514 | | | | | | <0.5 | 46 | 40 | 150 | −1 | 50 | 16 | −2 | −5 | −5 | −5 | 4 | 1,012 | −25 | 632 | 108 | 136 | −20 | −20 |
| 5515 | | | | | | <0.5 | 14 | 84 | 431 | 2 | 24 | 8 | −2 | −5 | 8 | 21 | 3 | 571 | −25 | 242 | 321 | 65 | −20 | −20 |
| 5516 | | | | | | <0.5 | 73 | 57 | 157 | −1 | 74 | 31 | −2 | −5 | 16 | −5 | 5 | 1,604 | −25 | 713 | 107 | 127 | −20 | −20 |
| 5517 | | | | | | <0.5 | 12 | 33 | 134 | −1 | 34 | 13 | −2 | 6 | −5 | −5 | 6 | 2,084 | −25 | 340 | 204 | 89 | 21 | −20 |
| 5518 | | | | | | <0.5 | 27 | 55 | 584 | 81 | 55 | 17 | −2 | 6 | 23 | −5 | 6 | 895 | −25 | 299 | 193 | 106 | 23 | −20 |
| 5519 | | | | | | <0.5 | 21 | 86 | 578 | 12 | 36 | 7 | −2 | −5 | 33 | −5 | 6 | 1,458 | −25 | 338 | 218 | 101 | −20 | −20 |
| 5520 | | | | | | <0.5 | 16 | 60 | 195 | 8 | 29 | 12 | −2 | −5 | 82 | −5 | 4 | 1,149 | −25 | 309 | 242 | 78 | 25 | −20 |
| 5521 | | | | | | <0.5 | 50 | 25 | 296 | −1 | 74 | 18 | −2 | −5 | 11 | −5 | 3 | 598 | −25 | 788 | 137 | 188 | −20 | −20 |
| 5522 | | | | | | <0.5 | 16 | 32 | 132 | 4 | 43 | 14 | −2 | −5 | −5 | −5 | 7 | 2,362 | −25 | 224 | 191 | 78 | −20 | −20 |
| 5523 | | | | | | 1.9 | 41 | 901 | 1,073 | −1 | 47 | 19 | 5 | −5 | 51 | 14 | 3 | 1,271 | −25 | 1,816 | 102 | 123 | −20 | −20 |
| 5524 | | | | | | <0.5 | 7 | 103 | 430 | −1 | 13 | 3 | −2 | −5 | 15 | −5 | 5 | 1,754 | −25 | 490 | 222 | 85 | −20 | −20 |
| 5525 | | | | | | 2.5 | 9 | 315 | 28 | 11 | 8 | 2 | −2 | −5 | 47 | 11 | 1 | 115 | −25 | 92 | 123 | 33 | −20 | −20 |
| 5526 | | | | | | 7.8 | 58 | 3434 | 2,423 | 4 | 46 | 18 | 3 | −5 | 42 | 45 | 3 | 1,050 | −25 | 905 | 116 | 157 | −20 | −20 |
| 5527 | 0.9400 | 1.1600 | | | | 17.4 | 50 | 6686 | 10,758 | 11 | 17 | 6 | 68 | 13 | 24 | 59 | 4 | 882 | −25 | 183 | 220 | 72 | −20 | −20 |
| 5528 | 0.3000 | 0.2800 | | | | 4.5 | 26 | 2966 | 2,790 | 3 | 23 | 6 | 8 | 8 | −5 | 39 | 4 | 1,022 | −25 | 765 | 246 | 75 | −20 | −20 |
| 5529 | | | | | | 3.8 | 53 | 1792 | 2,727 | 92 | 60 | 32 | 10 | −5 | 45 | 15 | 3 | 1,404 | −25 | 740 | 138 | 157 | −20 | −20 |
| 5530 | | | | | | 3.2 | 15 | 1013 | 1,727 | 4 | 14 | 2 | −2 | 5 | 47 | 49 | 3 | 625 | −25 | 524 | 180 | 80 | −20 | −20 |
| 5531 | | | | | | <0.5 | 49 | 96 | 1,264 | 18 | 65 | 30 | −2 | −5 | 28 | −5 | 4 | 1,138 | −25 | 771 | 117 | 140 | −20 | −20 |
| 5532 | | | | | | <0.5 | 16 | 71 | 520 | 3 | 47 | 16 | −2 | 6 | −5 | −5 | 7 | 1,600 | −25 | 860 | 202 | 104 | 25 | −20 |
| 5533 | 2.9400 | 1.8000 | | | | 50.0 | 21 | 10000 | 18,016 | 19 | 10 | 4 | 72 | 20 | 64 | 190 | 1 | 325 | −25 | 132 | 256 | 47 | −20 | −20 |
| 5534 | | | | | | <0.5 | 24 | 269 | 867 | 3 | 37 | 14 | −2 | −5 | 16 | 7 | 4 | 1,298 | −25 | 468 | 162 | 109 | −20 | −20 |
| 5535 | | | | | | <0.5 | 44 | 417 | 2,063 | 9 | 69 | 37 | 15 | −5 | 23 | −5 | 3 | 2,330 | −25 | 905 | 119 | 131 | −20 | −20 |
| 5536 | | | | | | <0.5 | 27 | 118 | 2,010 | 9 | 58 | 15 | 9 | 9 | −5 | −5 | 8 | 2,733 | −25 | 783 | 194 | 132 | −20 | −20 |
| 5537 | | | | | | <0.5 | 54 | 213 | 4,339 | 10 | 67 | 40 | 20 | −5 | −5 | −5 | 4 | 1,802 | −25 | 914 | 111 | 151 | −20 | −20 |
| 5538 | | | | | | <0.5 | 23 | 766 | 1,650 | 3 | 39 | 15 | 2 | −5 | −5 | 15 | 6 | 1,466 | −25 | 404 | 169 | 103 | −20 | −20 |
| 5539 | | | | | | <0.5 | 48 | 187 | 2,517 | 6 | 59 | 26 | 15 | −5 | 14 | −5 | 4 | 1,244 | −25 | 776 | 110 | 138 | −20 | −20 |
| 5540 | | | | | | <0.5 | 14 | 64 | 2,589 | 5 | 61 | 20 | 20 | −5 | −5 | −5 | 8 | 1,853 | −25 | 644 | 149 | 103 | −20 | −20 |
| 5541 | | | | | | <0.5 | 20 | 173 | 1,193 | 5 | 24 | 10 | −2 | −5 | −5 | −5 | 4 | 700 | −25 | 284 | 231 | 88 | −20 | −20 |
| 5542 | | | | | | <0.5 | 28 | 56 | 644 | 2 | 37 | 9 | −2 | −5 | −5 | −5 | 5 | 912 | −25 | 305 | 161 | 94 | −20 | −20 |
| 5543 | | | | | | <0.5 | 45 | 101 | 449 | 5 | 52 | 14 | −2 | −5 | 48 | −5 | 3 | 534 | −25 | 757 | 122 | 168 | −20 | −20 |
| 5544 | | | | | | <0.5 | 29 | 44 | 438 | 2 | 49 | 17 | −2 | −5 | 6 | −5 | 4 | 723 | −25 | 393 | 175 | 110 | −20 | −20 |
| 5545 | 10.0000 | | | | | 50.0 | 377 | 10000 | 20,000 | 186 | −1 | 29 | 1439 | 131 | 123 | 310 | 1 | 75 | 45 | 36 | 177 | 9 | 101 | −20 |
| 5546 | 0.4100 | | | | | 25.1 | 45 | 10000 | 4,737 | 7 | 19 | 7 | 28 | 12 | 33 | 117 | 4 | 1,295 | −25 | 267 | 174 | 48 | 31 | −20 |
| 5547 | | | | | | <0.5 | 44 | 58 | 482 | 3 | 55 | 16 | −2 | −5 | 20 | −5 | 3 | 756 | −25 | 528 | 94 | 127 | −20 | −20 |
| 5548 | | | | | | <0.5 | 24 | 179 | 1,016 | 4 | 25 | 10 | 6 | 7 | 6 | 6 | 3 | 537 | −25 | 243 | 317 | 71 | −20 | −20 |
| 5549 | | | | | | <0.5 | 50 | 1123 | 3,303 | 5 | 52 | 11 | 7 | −5 | 21 | 18 | 3 | 591 | −25 | 1,228 | 136 | 200 | −20 | −20 |
| 5550 | | | | | | <0.5 | 30 | 618 | 2,880 | 4 | 15 | 5 | 9 | 6 | −5 | 12 | 5 | 1,592 | −25 | 550 | 327 | 71 | −20 | −20 |
| 5551 | 3.2200 | 0.0900 | | | | 43.1 | 26 | 10000 | 1,255 | −1 | 10 | 9 | 4 | −5 | 35 | 160 | 0 | 72 | −25 | 2,000 | 254 | 14 | −20 | −20 |
| 5552 | 1.0700 | 2.7400 | | | | 42.5 | 46 | 10000 | 20,000 | −1 | −1 | 5 | 148 | 27 | 19 | 75 | 1 | 25 | −25 | 1,620 | 325 | 15 | −20 | −20 |
| 5553 | 0.4100 | 4.3400 | | | | 6.9 | 77 | 4328 | 20,000 | −1 | −1 | 10 | 188 | 42 | 23 | 30 | 1 | 30 | −25 | 921 | 458 | 14 | 21 | −20 |
| 5554 | 0.2000 | 0.3800 | | | | 9.0 | 90 | 1814 | 3,830 | −1 | 1 | 19 | 15 | 21 | 35 | 31 | 0 | 28 | −25 | 2,000 | 182 | 14 | −20 | −20 |
| 5555 | 1.3100 | 4.1100 | | | | 49.7 | 105 | 10000 | 20,000 | −1 | −1 | 10 | 189 | 38 | 9 | 100 | 1 | 14 | −25 | 895 | 206 | 20 | 26 | −20 |
| 5556 | 0.1000 | 10.0000 | | | | 11.4 | 16,585 | 965 | 20,000 | 110 | 15 | 37 | 1107 | 127 | 87 | 59 | 2 | 24 | −25 | 296 | 275 | −2 | 82 | −20 |
| 5556 | 0.0300 | 8.8800 | | | | 7.4 | 7,691 | 307 | 20,000 | 84 | 33 | 55 | 817 | 84 | 62 | 61 | 2 | 34 | −25 | 21 | 388 | 3 | 67 | −20 |
| 5557 | 0.0200 | 1.0800 | | | | 1.1 | 719 | 156 | 11,742 | 13 | 14 | 11 | 78 | 10 | 19 | 13 | 1 | 90 | −25 | 105 | 334 | 24 | −20 | −20 |
| 5558 | <0.0100 | 5.1200 | | | | 3.0 | 2,454 | 104 | 20,000 | 55 | 20 | 20 | 450 | 54 | 131 | 32 | 1 | 27 | −25 | 53 | 363 | 9 | −20 | −20 |
| 5559 | <0.0100 | 10.0000 | | | | 1.1 | 1,559 | 135 | 20,000 | 95 | 70 | 50 | 837 | 91 | 161 | 30 | 1 | 39 | −25 | 93 | 389 | 24 | 62 | −20 |
| 5560 | 1.8000 | 10.0000 | | | | 16.0 | 397 | 10000 | 20,000 | 183 | 73 | 130 | 2000 | 170 | 226 | 105 | 1 | 24 | −25 | 58 | 166 | 17 | 100 | −20 |
| 5561 | <0.0100 | 1.0600 | | | | 2.8 | 264 | 154 | 12,630 | 12 | 13 | 6 | 112 | 13 | 72 | 16 | 1 | 36 | −25 | 135 | 347 | 32 | −20 | −20 |
| 5562 | 0.1000 | 10.0000 | | | | 6.3 | 5,419 | 997 | 20,000 | 122 | 251 | 230 | 1784 | 124 | 151 | 85 | 2 | 63 | −25 | 31 | 295 | 12 | 89 | −20 |
| 5563 | 1.7100 | 1.4400 | | | | 7.9 | 163 | 10000 | 14,804 | 14 | 102 | 14 | 114 | 14 | 574 | 63 | 1 | 27 | −25 | 40 | 366 | 15 | 21 | −20 |
| 5564 | <0.0100 | 9.7500 | | | | 2.2 | 172 | 172 | 20,000 | 88 | 15 | 35 | 675 | 67 | 142 | 48 | 3 | 34 | −25 | 21 | 303 | 6 | 48 | −20 |
| 5565 | 7.4900 | 0.5500 | | | | 50.0 | 1,376 | 10000 | 6,015 | 6 | 13 | 3 | 25 | 6 | 14 | 20 | 2 | 242 | −25 | 69 | 357 | 29 | −20 | −20 |
| 5601 | 0.4900 | 31.4200 | | | | 50.0 | 30 | 4949 | 20,000 | 183 | 7 | 38 | 1009 | 155 | 125 | 103 | 1 | 24 | −25 | 510 | 223 | 11 | 88 | −20 |
| 5602 | 0.0300 | 0.0700 | | | | 0.6 | 36 | 166 | 1,036 | −1 | 8 | 29 | 3 | 8 | −5 | −5 | 1 | 29 | −25 | 2,000 | 71 | 10 | −20 | −20 |

APPENDIX. 1990–1991 CMD Sample Analytical Results

| Sample no. | Pb % | Zn % | Ba % | Cr % | Mn % | Ag ppm | Cu ppm | Pb ppm | Zn ppm | Mo ppm | Ni ppm | Co ppm | Cd ppm | Bi ppm | As ppm | Sb ppm | Fe % | Mn ppm | Te ppm | Ba ppm | Cr ppm | V ppm | Sn ppm | W ppm |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5603 | 0.0600 | 0.2200 | | | | 4.9 | 17,280 | 525 | 2,310 | 3 | 15 | 9 | 11 | 26 | 15 | −5 | 2 | 204 | −25 | 200 | 343 | 6 | 21 | −20 |
| 5604 | 1.8300 | 0.7100 | | | | 16.5 | 108 | 10000 | 7,559 | 7 | 8 | 4 | 31 | 8 | 20 | 10 | 1 | 29 | −25 | 875 | 393 | 6 | −20 | −20 |
| 5605 | 1.5600 | 1.1900 | | | | 22.1 | 131 | 10000 | 12,029 | 13 | 11 | 3 | 47 | 18 | 10 | 36 | 2 | 269 | −25 | 200 | 358 | 46 | −20 | −20 |

APPENDIX. 1990–1991 CMD Sample Analytical Results

| Sample no. | Li ppm | Ga ppm | La ppm | Ta ppm | Ti % | Al % | Mg % | Ca % | Na % | K % | Nb ppm | Sr ppm | Y % | Zr ppm | Au ppb | Pt ppb | Pd ppb | Ge ppm | Rh ppb | Os ppb | Ir ppb | Ru ppb | Ag o/t | La ppm | Ce ppm | Pr ppm | Nd ppm |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4001 | 27 | <2 | 6 | 13 | 0.07 | 1.41 | 5.92 | 2.38 | 0.19 | 0.33 | 15.00 | 98 | 13 | 24 | 24 | 38 | <20 | | <5 | <10 | 1 | <50 | | | | | |
| 4002 | 44 | <2 | 25 | <1 | 0.26 | 5.13 | 0.30 | 0.11 | 0.24 | 1.04 | 14.00 | 115 | 25 | 106 | 7 | 22 | <20 | | <5 | <10 | 2 | <50 | | | | | |
| 4003 | 40 | <2 | 24 | <1 | 0.28 | 5.38 | 0.26 | 0.10 | 0.22 | 1.00 | 12.00 | 128 | 21 | 109 | 16 | 36 | <20 | | <5 | <10 | 1 | <50 | | | | | |
| 4004 | 24 | <2 | 21 | <1 | 0.26 | 4.65 | 0.29 | 0.19 | 0.24 | 1.05 | 10.00 | 75 | 20 | 90 | 5 | 32 | <20 | | <5 | <10 | <1 | <50 | | | | | |
| 4005 | 40 | <2 | 38 | <1 | 0.41 | 4.27 | 0.71 | 0.23 | 0.57 | 0.89 | 11.00 | 62 | 27 | 155 | 8 | 33 | <20 | | <5 | <10 | 2 | <50 | | | | | |
| 4006 | 48 | <2 | 36 | <1 | 0.36 | 4.96 | 0.80 | 0.14 | 0.58 | 0.82 | 15.00 | 59 | 24 | 148 | 5 | 26 | <20 | | <5 | <10 | <1 | <50 | | | | | |
| 4007 | 20 | <2 | 20 | <1 | 0.19 | 2.76 | 0.06 | <0.05 | 0.11 | 0.47 | 11.00 | 152 | 15 | 83 | 6 | 24 | <20 | | <5 | <10 | 2 | <50 | | | | | |
| 4008 | 22 | <2 | 22 | 8 | 0.25 | 3.92 | 0.21 | 0.06 | 0.18 | 0.87 | 16.00 | 99 | 17 | 94 | 4 | 31 | <20 | | <5 | <10 | <1 | <50 | | | | | |
| 4009 | 6 | 3 | <1 | <1 | <0.05 | 0.06 | <0.05 | <0.05 | <0.05 | <0.05 | <1 | 2 | <1 | <1 | | | | | | | | | 7.48 | | | | |
| 4010 | 7 | <2 | 11 | <1 | 0.12 | 1.52 | 0.52 | 0.20 | 0.07 | 0.58 | 7.00 | 34 | 12 | 32 | 12 | 26 | <20 | | <5 | <10 | <1 | <50 | | | | | |
| 4011 | 36 | <2 | <1 | <1 | 0.54 | 2.98 | 0.71 | 0.63 | 0.38 | 0.34 | 5.00 | 145 | 21 | 44 | 6 | 29 | <20 | | <5 | <10 | <1 | <50 | | | | | |
| 4012 | 24 | 8 | <1 | <1 | 0.07 | 1.02 | <0.05 | <0.05 | <0.05 | 0.33 | 2.00 | 17 | 8 | 19 | 131 | <88 | <20 | | <5 | <10 | 1 | <50 | 6.01 | | | | |
| 4013 | 19 | 19 | 2 | <1 | <0.05 | 0.67 | <0.05 | <0.05 | <0.05 | 0.25 | 2.00 | 20 | 4 | 14 | | | | | | | | | 4.35 | | | | |
| 4014 | 26 | <2 | 2 | <1 | 0.09 | 1.24 | <0.05 | <0.05 | <0.05 | 0.41 | <1 | 27 | 8 | 25 | 94 | <70 | <20 | | <5 | <10 | 2 | <60 | 1.70 | | | | |
| 4015 | 20 | 3 | 5 | <1 | 0.09 | 0.95 | 0.06 | <0.05 | 0.13 | 0.43 | 5.00 | 18 | 2 | 53 | 220 | <150 | <20 | | <5 | <10 | <1 | <140 | 0.43 | | | | |
| 4016 | 11 | <2 | 23 | 55 | <0.05 | 0.52 | 2.86 | 3.75 | 0.12 | 0.12 | 17.00 | 71 | 55 | 19 | 3 | 32 | <20 | | <5 | <10 | 1 | <50 | | | | | |
| 4017 | 12 | <10 | <5 | 45 | 0.90 | 5.41 | 4.11 | 6.93 | 2.43 | 0.28 | 44.00 | 236 | 18 | 97 | 6 | 22 | 16 | | | | | | | | | | |
| 4018 | 13 | 16 | 10 | 60 | 0.08 | 1.48 | 7.02 | >10.00 | 0.31 | 0.53 | 7.00 | 382 | 14 | 22 | 2 | 8 | 5 | | | | | | | | | | |
| 4019 | 32 | 13 | <5 | 27 | 0.32 | 4.73 | 1.78 | 1.26 | 4.82 | 0.11 | 8.00 | 146 | 11 | 29 | 3 | 10 | 5 | | | | | | | | | | |
| 4020 | 16 | <2 | 3 | 47 | 0.08 | 1.95 | 2.43 | 9.06 | 0.11 | 0.38 | 10.00 | 56 | 26 | 27 | 4 | 29 | <20 | | <5 | <10 | <1 | <50 | | | | | |
| 4021 | 3 | <2 | 10 | <1 | 0.07 | 0.46 | 0.48 | >10.00 | 0.17 | 0.14 | 4.00 | 310 | 14 | 6 | 5 | 25 | <20 | | <5 | <10 | <1 | <50 | | | | | |
| 4022 | 39 | <2 | 18 | 15 | 0.09 | 2.12 | 5.12 | >10.00 | 0.10 | 0.53 | 8.00 | 267 | 34 | 32 | 27 | <70 | <20 | | <5 | <10 | 3 | <120 | | | | | |
| 4023 | 82 | <2 | 27 | <1 | 0.29 | 6.14 | 0.53 | 0.23 | 0.33 | 1.05 | 14.00 | 76 | 25 | 112 | 5 | 29 | <20 | | <5 | <10 | 2 | <50 | | | | | |
| 4024 | 46 | <2 | 7 | <1 | 0.20 | 3.29 | 0.40 | 0.22 | 0.22 | 0.76 | 10.00 | 126 | 17 | 78 | 8 | 43 | <20 | | <5 | <10 | <1 | <50 | | | | | |
| 4025 | 12 | <2 | <1 | <1 | <0.05 | 0.53 | <0.05 | <0.05 | <0.05 | 0.22 | <1 | 7 | 6 | 5 | | | | | | | | | 3.05 | | | | |
| 4026 | 33 | <2 | 9 | <1 | 0.10 | 1.23 | <0.05 | <0.05 | 0.05 | 0.48 | 1.00 | 19 | 12 | 31 | 52 | 67 | <20 | | <5 | <10 | 2 | <50 | 0.56 | | | | |
| 4027 | 32 | <10 | <5 | <5 | 0.04 | 1.01 | 0.33 | 0.79 | 0.21 | 0.28 | <5 | 69 | 8 | 12 | 3 | 14 | 3 | | | | | | | | | | |
| 4028 | 17 | <10 | <5 | 34 | 0.05 | 1.17 | 0.18 | 0.05 | 0.10 | 0.44 | <5 | 40 | <5 | 20 | 3 | 6 | 4 | | | | | | | | | | |
| 4029 | 21 | <10 | 6 | 79 | 0.09 | 1.22 | 1.84 | 3.69 | 0.15 | 0.42 | 16.00 | 110 | 11 | 21 | 1 | 12 | 3 | | | | | | | | | | |
| 4030 | 23 | <10 | 13 | <5 | 0.15 | 2.05 | 0.27 | 0.04 | 0.16 | 0.61 | <5 | 94 | 11 | 44 | 3 | 7 | 4 | | | | | | | | | | |
| 4031 | 31 | <10 | 6 | <5 | 0.06 | 1.10 | 0.13 | 0.06 | 0.06 | 0.41 | <5 | 31 | 8 | 23 | 11 | 15 | 9 | | | | | | | | | | |
| 4032 | 12 | <10 | <5 | 66 | 0.03 | 0.64 | 8.37 | >10.00 | <0.01 | 0.22 | 7.00 | 1090 | 8 | 25 | 8 | 7 | 2 | | | | | | | | | | |
| 4033 | 18 | <10 | <5 | 11 | 0.04 | 0.98 | 0.33 | 0.07 | 0.04 | 0.12 | <5 | 53 | 5 | 21 | 3 | 15 | 5 | | | | | | | | | | |
| 4034 | 4 | <10 | 13 | 75 | 0.07 | 1.35 | 2.04 | >10.00 | 0.81 | 0.21 | 11.00 | 808 | 16 | 49 | 4 | 11 | 6 | | | | | | | | | | |
| 4035 | 27 | <10 | <5 | <5 | 0.05 | 1.03 | 0.14 | 0.08 | 0.04 | 0.30 | <5 | 52 | <5 | 18 | 4 | 11 | 4 | | | | | | | | | | |
| 4036 | 22 | <10 | 7 | <5 | 0.08 | 1.63 | 0.41 | 0.56 | 0.11 | 0.46 | <5 | 50 | 8 | 33 | 8 | 12 | 8 | | | | | | | | | | |
| 4037 | 6 | <10 | <5 | <5 | <0.01 | 0.05 | <0.01 | 0.01 | <0.01 | <0.01 | <5 | 9 | <5 | <5 | 3 | 7 | 3 | | | | | | | | | | |
| 4038 | 44 | <10 | 6 | 11 | 0.05 | 1.10 | 0.09 | 0.10 | 0.43 | 0.22 | <5 | 117 | 5 | 27 | 3 | 10 | 5 | | | | | | | | | | |
| 4039 | 4 | <10 | <5 | <5 | 0.02 | 0.52 | <0.01 | <0.01 | 0.34 | <0.01 | <5 | 144 | <5 | <5 | 3 | 10 | 6 | | | | | | | | | | |
| 4040 | 64 | <10 | <5 | <5 | 0.03 | 0.95 | 0.33 | 0.76 | 0.16 | 0.25 | <5 | 238 | 6 | 12 | 3 | 12 | 6 | | | | | | | | | | |
| 4041 | 15 | <10 | <5 | 13 | <0.01 | 0.08 | <0.01 | <0.01 | <0.01 | <0.01 | <5 | 32 | <5 | 8 | 3 | 9 | 4 | | | | | | | | | | |
| 4042 | 115 | 16 | 17 | 23 | 0.29 | 2.49 | 0.04 | 0.74 | 0.07 | 0.25 | 128.00 | 49 | <5 | 230 | <1 | <5 | <1 | | | | | | | | | | |
| 4043 | 45 | 14 | 38 | 28 | 1.07 | 4.47 | 5.32 | >10.00 | 1.47 | 0.37 | 62.00 | 837 | 18 | 138 | 3 | 12 | 7 | | | | | | | | | | |
| 4044 | 14 | <10 | <5 | 63 | 0.09 | 1.33 | 2.87 | 1.18 | 0.48 | 0.53 | 31.00 | 46 | 18 | 38 | 3 | 5 | <1 | | | | | | | | | | |
| 4045 | 20 | <10 | <5 | 23 | 0.10 | 1.19 | 3.55 | 4.28 | 0.28 | 0.35 | 23.00 | 50 | 13 | 30 | 1 | <5 | 3 | | | | | | | | | | |
| 4046 | 29 | <10 | 8 | <5 | 0.12 | 1.46 | 0.53 | 0.10 | 0.37 | 0.62 | 5.00 | 42 | 9 | 58 | 2 | 5 | 3 | | | | | | | | | | |
| 4047 | 23 | 26 | 9 | 15 | 0.07 | 0.78 | 0.53 | >10.00 | 0.10 | 0.02 | 9.00 | 711 | 14 | 19 | 4 | <5 | 4 | | | | | | | | | | |
| 4048 | 40 | <10 | 11 | <5 | 0.14 | 1.94 | 0.88 | 0.68 | 0.22 | 0.78 | 6.00 | 109 | 11 | 51 | 2 | <5 | 4 | | | | | | | | | | |
| 4049 | 55 | <10 | <5 | 11 | 0.05 | 0.77 | 0.73 | 0.35 | 0.08 | 0.21 | <5 | 84 | <5 | 34 | 2 | <5 | 2 | | | | | | | | | | |
| 4051 | 3 | <10 | 9 | 108 | <0.01 | 0.04 | >10.00 | >10.00 | 0.03 | <0.01 | 9.00 | 48 | 8 | <5 | 4 | 13 | 9 | | | | | | | | | | |
| 4052 | 36 | <10 | <5 | 34 | <0.01 | 0.03 | 0.90 | >10.00 | <0.01 | <0.01 | 7.00 | 74 | 39 | <5 | 3 | 10 | 5 | | | | | | | | | | |
| 4053 | 15 | <10 | <5 | 49 | <0.01 | 0.04 | 1.77 | >10.00 | <0.01 | <0.01 | 7.00 | 54 | 72 | <5 | 2 | 10 | 3 | | | | | | | | | | |
| 4054 | 9 | 22 | <5 | 56 | 0.24 | 5.24 | 1.76 | >10.00 | 0.32 | 0.06 | 15.00 | 58 | 7 | 31 | 44 | 9 | 5 | | | | | | | | | | |
| 4055 | 8 | 31 | <5 | 53 | 0.26 | 4.77 | 2.09 | >10.00 | 0.46 | 0.05 | 12.00 | 45 | 6 | 27 | 29 | 12 | 4 | | | | | | | | | | |
| 4056 | 22 | <10 | <5 | 14 | 0.07 | 1.06 | 0.30 | 0.26 | 0.47 | 0.42 | <5 | 37 | 7 | 35 | 8 | 9 | 5 | | | | | | | | | | |
| 4057 | 35 | <10 | <5 | 38 | 0.05 | 1.06 | 0.45 | 0.14 | 0.15 | 0.20 | <5 | 68 | <5 | 1313 | 26 | <5 | 2 | | | | | | | | | | |
| 4058 | 26 | <10 | <5 | 59 | 0.38 | 3.43 | 0.84 | 0.51 | 1.99 | 0.34 | <5 | 138 | 19 | 112 | 14 | 5 | 2 | | | | | | | | | | |
| 4059 | <2 | 19 | <5 | <5 | <0.01 | 0.11 | 0.05 | <0.01 | 0.03 | 0.05 | <5 | 3 | <5 | <5 | 4 | 17 | 19 | | | | | | 33.92 | | | | |

APPENDIX. 1990–1991 CMD Sample Analytical Results

| Sample no. | Li ppm | Ga ppm | La ppm | Ta ppm | Ti % | Al % | Mg % | Ca % | Na % | K % | Nb ppm | Sr ppm | Y % | Zr ppm | Au ppb | Pt ppb | Pd ppb | Ge ppm | Rh ppb | Os ppb | Ir ppb | Ru ppb | Ag o/t | La ppm | Ce ppm | Pr ppm | Nd ppm |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4060 | 13 | <10 | <5 | <5 | 0.03 | 0.44 | 0.06 | 0.01 | 0.05 | 0.15 | <5 | 9 | <5 | <5 | 5 | 6 | 10 | | | | | | 15.66 | | | | |
| 4061 | 16 | <10 | <5 | <5 | 0.01 | 0.29 | 0.05 | <0.01 | 0.03 | 0.09 | <5 | 9 | <5 | <5 | 2 | <5 | 10 | | | | | | 10.07 | | | | |
| 4062 | 29 | <10 | 19 | <5 | 0.09 | 1.69 | 0.08 | 0.03 | 0.05 | 0.62 | <5 | 32 | 6 | 19 | 84 | <5 | <1 | | | | | | | | | | |
| 4063 | 8 | <10 | 12 | <5 | 0.09 | 1.63 | 0.91 | 0.80 | 0.07 | 0.33 | <5 | 97 | 35 | 26 | <1 | <5 | 2 | | | | | | | | | | |
| 4064 | 4 | <10 | 9 | 41 | 0.33 | 3.35 | 0.22 | 0.36 | 3.35 | 0.45 | 9.00 | 42 | 7 | 67 | <1 | <5 | 2 | | | | | | | | | | |
| 4065 | 24 | <10 | 18 | 13 | 0.17 | 3.00 | 0.76 | 0.52 | 2.13 | 0.36 | 6.00 | 52 | 18 | 50 | 8 | <5 | 16 | | | | | | | | | | |
| 4066 | 29 | <10 | <5 | 28 | 0.09 | 1.64 | 2.08 | 1.71 | 0.28 | 0.44 | 6.00 | 95 | 11 | 22 | <1 | <5 | <1 | | | | | | | | | | |
| 4067 | 17 | <10 | 10 | 56 | 0.08 | 1.53 | 2.64 | 9.95 | 0.10 | 0.26 | 7.00 | 144 | 21 | 12 | 2 | <5 | <1 | | | | | | | | | | |
| 4068 | 33 | <10 | 12 | 16 | 0.25 | 3.35 | 1.36 | 0.32 | 0.82 | 0.12 | 6.00 | 22 | 7 | 32 | 1 | 7 | <1 | | | | | | | | | | |
| 4069 | 26 | <10 | 18 | 9 | 0.34 | 3.59 | 0.75 | 0.46 | 0.88 | 0.36 | 9.00 | 49 | 10 | 44 | 1 | <5 | <1 | | | | | | | | | | |
| 4070 | 19 | <10 | 8 | <5 | 0.16 | 2.67 | 1.01 | 0.06 | 0.52 | 0.18 | 5.00 | 19 | <5 | 24 | 2 | <5 | <1 | | | | | | | | | | |
| 4071 | 16 | 13 | <5 | <5 | 0.03 | 0.58 | 0.07 | 0.02 | 0.05 | 0.19 | <5 | 4 | <5 | <5 | 58 | <5 | <1 | | | | | | 2.14 | | | | |
| 4072 | 9 | 23 | <5 | <5 | 0.02 | 0.36 | 0.07 | <0.01 | 0.04 | 0.12 | <5 | 3 | <5 | <5 | 59 | <5 | 3 | | | | | | 4.04 | | | | |
| 4073 | 34 | 34 | <5 | <5 | <0.01 | 0.23 | 0.05 | <0.01 | 0.05 | 0.07 | 9.00 | 3 | <5 | <5 | 30 | <5 | <1 | | | | | | | | | | |
| 4074 | 74 | <10 | <5 | <5 | 0.01 | 0.40 | 0.06 | 0.01 | 0.05 | 0.09 | 5.00 | 5 | <5 | <5 | 9 | <5 | <1 | | | | | | | | | | |
| 4075 | 25 | 43 | <5 | <5 | 0.01 | 0.27 | <0.01 | 0.01 | 0.14 | 0.12 | 6.00 | 8 | <5 | <5 | 31 | 9 | 1 | <10 | | | | | | | | | |
| 4076 | 27 | 34 | <5 | <5 | <0.01 | 0.23 | <0.01 | <0.01 | 0.03 | 0.04 | <5 | 5 | <5 | <5 | 11 | <5 | 2 | <10 | | | | | | | | | |
| 4077 | 38 | 12 | 31 | <5 | 0.25 | 2.99 | 1.47 | 2.55 | 0.51 | 0.37 | 5.00 | 212 | 90 | 75 | 4 | 11 | 1 | <10 | | | | | | | | | |
| 4078 | 36 | 13 | 49 | <5 | 0.10 | 3.09 | 1.35 | 4.01 | 0.36 | 0.41 | <5 | 223 | 173 | 38 | 3 | <5 | <1 | <10 | | | | | | | | | |
| 4079 | 29 | <10 | <5 | <5 | 0.02 | 0.63 | 0.05 | 0.11 | 0.06 | 0.17 | <5 | 14 | <5 | <5 | 3 | 9 | <1 | <10 | | | | | | | | | |
| 4080 | 3 | <10 | 87 | <5 | <0.01 | 0.30 | 0.32 | >10.00 | 0.21 | 0.09 | 10.00 | 577 | 168 | 10 | 1 | 7 | 3 | <10 | | | | | | 138 | 39 | <50 | 74 |
| 4081 | 38 | <10 | 12 | <5 | 0.05 | 0.63 | 0.13 | 0.03 | 0.02 | 0.32 | <5 | 57 | 6 | 29 | 14 | 25 | 11 | | | | | | | | | | |
| 4082 | 24 | <10 | 13 | <5 | 0.12 | 1.45 | 0.31 | 0.04 | 0.15 | 0.88 | <5 | 104 | 8 | 44 | 9 | 20 | 8 | | | | | | | | | | |
| 4083 | 17 | 14 | 15 | <5 | 0.11 | 1.87 | 1.09 | 2.69 | 1.53 | 0.40 | 6.00 | 571 | 14 | 68 | 7 | 21 | 6 | | | | | | | | | | |
| 4084 | 29 | <10 | 6 | 6 | <0.01 | 0.16 | 0.92 | >10.00 | <0.01 | <0.01 | 11.00 | 112 | <5 | 13 | 5 | 23 | 4 | | | | | | | | | | |
| 4085 | 20 | <10 | <5 | 79 | 0.06 | 0.98 | 3.79 | 7.11 | 0.05 | 0.27 | 16.00 | 47 | 13 | 26 | 11 | 24 | 6 | | | | | | | | | | |
| 4086 | 45 | <10 | 27 | 9 | 0.36 | 3.91 | 0.23 | 0.15 | 0.04 | 0.56 | 9.00 | 52 | 16 | 116 | 6 | 21 | 7 | | | | | | | | | | |
| 4087 | 31 | 20 | <5 | 57 | 0.06 | 1.52 | 2.51 | 0.76 | 0.28 | 0.46 | 14.00 | 32 | 12 | 19 | 2 | <5 | <1 | | | | | | | | | | |
| 4088 | 60 | <10 | 22 | 33 | 0.20 | 2.82 | 1.06 | 0.63 | 0.13 | 0.45 | 7.00 | 76 | 24 | 59 | <1 | 6 | <1 | | | | | | | | | | |
| 4089 | 17 | <10 | <5 | 53 | 0.10 | 1.99 | 1.91 | 0.61 | 0.37 | 0.66 | 6.00 | 31 | 8 | 27 | 36 | <5 | <1 | | | | | | | | | | |
| 4090 | 18 | <10 | 28 | <5 | 0.39 | 2.22 | 0.30 | 0.08 | 0.37 | 0.63 | 7.00 | 40 | 12 | 87 | 3 | <5 | <1 | | | | | | | | | | |
| 4091 | 13 | 18 | <5 | 78 | 1.21 | 3.95 | 2.74 | 5.25 | 2.30 | 0.29 | 16.00 | 216 | 19 | 12 | 4 | 30 | 29 | | | | | | | | | | |
| 4092 | 10 | 19 | <5 | 60 | 0.69 | 5.06 | 3.99 | 6.88 | 2.16 | 0.24 | 14.00 | 260 | 13 | 22 | 3 | 15 | 10 | | | | | | | | | | |
| 4093 | 30 | <10 | <5 | <5 | 0.32 | 4.06 | 1.56 | 1.70 | 4.16 | 0.15 | <5 | 225 | 7 | 16 | 2 | 6 | 2 | | | | | | | | | | |
| 4094 | 11 | 16 | <5 | 56 | 0.84 | 4.95 | 3.10 | 7.78 | 1.95 | 0.21 | 12.00 | 213 | 16 | 31 | 4 | 15 | 9 | | | | | | | | | | |
| 4095 | 5 | <10 | <5 | 21 | 0.01 | 0.19 | 0.40 | 8.36 | 0.06 | 0.07 | 7.00 | 201 | <5 | <5 | 3 | <5 | <1 | | | | | | | | | | |
| 4096 | 30 | 13 | 11 | 35 | 0.55 | 4.32 | 2.56 | >10.00 | 1.34 | 0.55 | 20.00 | 157 | 17 | 50 | 3 | 5 | 4 | | | | | | | | | | |
| 4097 | 24 | <10 | 8 | 31 | 0.49 | 3.47 | 2.02 | 8.61 | 1.29 | 0.49 | 13.00 | 184 | 15 | 48 | 3 | <5 | 3 | | | | | | | | | | |
| 4098 | 12 | 20 | <5 | 60 | 0.79 | 3.66 | 2.64 | 7.70 | 2.11 | 0.65 | 19.00 | 579 | 13 | 24 | 6 | 10 | 12 | | | | | | | | | | |
| 4099 | 17 | 19 | <5 | 36 | 0.85 | 4.40 | 3.00 | 7.83 | 1.84 | 0.28 | 14.00 | 229 | 15 | 36 | 2 | <5 | 10 | | | | | | | | | | |
| 4100 | 18 | <10 | 15 | 13 | 0.29 | 3.30 | 0.16 | 0.06 | 0.11 | 0.84 | 7.00 | 117 | 11 | 50 | <1 | <5 | <1 | | | | | | | | | | |
| 4101 | 12 | <10 | 20 | 26 | 0.15 | 2.29 | 0.77 | 1.26 | 0.10 | 0.45 | 6.00 | 128 | 47 | 38 | 1 | <5 | <1 | | | | | | | | | | |
| 4102 | 13 | <10 | 16 | 80 | 0.14 | 2.32 | 0.72 | 0.70 | 0.07 | 0.39 | 8.00 | 97 | 25 | 29 | <1 | <5 | <1 | | | | | | | | | | |
| 4103 | 10 | <10 | 18 | 32 | 0.14 | 2.07 | 2.93 | 8.75 | 0.08 | 0.38 | 13.00 | 122 | 22 | 25 | 1 | <5 | <1 | | | | | | | | | | |
| 4104 | 23 | 24 | 14 | <5 | 0.93 | 4.09 | 1.79 | 5.38 | 1.06 | 0.60 | 7.00 | 141 | 18 | 28 | 187 | <5 | 2 | | | | | | | | | | |
| 4105 | 38 | 15 | 12 | <5 | 0.55 | 2.85 | 1.37 | 4.04 | 1.28 | 0.82 | 12.00 | 132 | 14 | 44 | 4 | <5 | 3 | | | | | | | | | | |
| 4106 | 27 | <10 | 14 | <5 | 0.47 | 3.05 | 1.67 | 4.28 | 1.20 | 0.47 | 9.00 | 732 | 26 | 31 | 41 | <5 | 5 | | | | | | | | | | |
| 4107 | 39 | 11 | 14 | <5 | 0.65 | 4.51 | 1.98 | 3.53 | 1.51 | 0.92 | 12.00 | 174 | 19 | 53 | 3 | <5 | 5 | | | | | | | | | | |
| 4108 | 47 | 12 | 18 | <5 | 0.56 | 5.64 | 2.13 | 2.57 | 1.49 | 1.16 | 15.00 | 134 | 21 | 71 | 3 | <5 | 5 | | | | | | | | | | |
| 4109 | 40 | 15 | 13 | 35 | 0.55 | 4.37 | 2.61 | 3.90 | 1.65 | 0.68 | 15.00 | 122 | 14 | 48 | 1 | 7 | 3 | | | | | | | | | | |
| 4110 | 37 | <10 | 17 | 20 | 0.34 | 3.04 | 2.13 | 5.74 | 1.02 | 0.81 | 10.00 | 189 | 14 | 41 | 4 | <5 | 4 | | | | | | | | | | |
| 4111 | 19 | 127 | 40 | 24 | 0.08 | 1.59 | 0.72 | 5.00 | 0.15 | 0.38 | 7.00 | 185 | 106 | 15 | 3 | <5 | 1 | | | | | | | | | | |
| 4112 | 19 | <10 | 30 | 78 | 0.06 | 2.75 | 3.71 | >10.00 | 0.40 | 0.73 | 8.00 | 233 | 56 | 30 | 2 | <5 | 3 | | | | | | | | | | |
| 4113 | 22 | 17 | 21 | 53 | 0.17 | 3.02 | 3.57 | 8.14 | 0.52 | 0.67 | 13.00 | 151 | 31 | 40 | 1 | 6 | <1 | | | | | | | | | | |
| 4114 | 9 | <10 | 21 | 18 | 0.05 | 0.76 | 0.08 | 0.05 | 0.05 | 0.18 | <5 | 58 | 13 | 7 | 4 | <5 | 1 | | | | | | | | | | |
| 4115 | 7 | <10 | 16 | 36 | 0.15 | 2.05 | 0.55 | 0.94 | 0.06 | 0.57 | <5 | 133 | 24 | 33 | 3 | <5 | <1 | | | | | | | | | | |
| 4116 | <2 | <10 | <5 | <5 | 0.02 | 0.28 | 0.05 | <0.01 | 0.03 | 0.11 | <5 | 4 | <5 | <5 | 81 | <5 | <1 | | | | | | 53.59 | | | | |
| 4117 | 64 | <10 | 5 | 42 | 0.05 | 0.95 | 0.11 | 0.04 | 0.06 | 0.19 | <5 | 14 | <5 | 7 | 2 | <5 | <1 | | | | | | | | | | |

APPENDIX. 1990–1991 CMD Sample Analytical Results

| Sample no. | Li ppm | Ga ppm | La ppm | Ta ppm | Ti % | Al % | Mg % | Ca % | Na % | K % | Nb ppm | Sr ppm | Y % | Zr ppm | Au ppb | Pt ppb | Pd ppb | Ge ppm | Rh ppb | Os ppb | Ir ppb | Ru ppb | Ag o/t | La ppm | Ce ppm | Pr ppm | Nd ppm |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4118 | 5 | <10 | 23 | 8 | 0.09 | 1.55 | 0.07 | 0.01 | 0.04 | 0.19 | <5 | 75 | 7 | 19 | 1 | <5 | <1 | | | | | | | | | | |
| 4119 | 13 | <10 | 26 | 19 | 0.15 | 2.29 | 0.11 | 0.02 | 0.06 | 0.49 | <5 | 147 | 9 | 36 | <1 | <5 | <1 | | | | | | | | | | |
| 4120 | 10 | <10 | 21 | <5 | 0.07 | 0.93 | 0.53 | 0.11 | 0.04 | 0.19 | <5 | 119 | 7 | 12 | 1 | <5 | <1 | | | | | | | | | | |
| 4121 | 7 | <10 | <5 | 53 | 1.61 | 3.88 | 2.00 | 5.68 | 1.69 | 0.15 | 12.00 | 165 | 28 | 47 | 13 | 30 | 175 | | | | | | | | | | |
| 4122 | 38 | <10 | 8 | 48 | 0.09 | 1.49 | 0.19 | 0.03 | 0.24 | 0.47 | <5 | 66 | <5 | 28 | 3 | <5 | 2 | | | | | | | | | | |
| 4123 | 20 | <10 | 6 | 24 | 0.06 | 1.29 | 0.17 | 0.05 | 0.46 | 0.28 | <5 | 75 | 5 | 29 | <1 | 9 | 3 | | | | | | | | | | |
| 4124 | 8 | <10 | <5 | 30 | <0.01 | 0.13 | 0.09 | 0.15 | 0.04 | 0.03 | <5 | 31 | <5 | <5 | 8 | <5 | <1 | | | | | | | | | | |
| 4125 | 4 | <10 | <5 | 34 | 0.04 | 0.45 | 0.08 | 0.03 | 0.31 | 0.04 | <5 | 151 | <5 | <5 | <1 | <5 | 1 | | | | | | | | | | |
| 4126 | 9 | <10 | 10 | <5 | 0.08 | 1.17 | 0.18 | 0.03 | 0.29 | 0.29 | <5 | 34 | 7 | 14 | 3 | 7 | <1 | | | | | | | | | | |
| 4127 | 8 | <10 | 10 | <5 | 0.06 | 1.14 | 0.18 | 0.12 | 0.58 | 0.17 | <5 | 45 | <5 | 13 | 3 | <5 | <1 | | | | | | | | | | |
| 4128 | 18 | <10 | 18 | 88 | 0.06 | 0.50 | 0.02 | 0.02 | 0.10 | 0.23 | <5 | 33 | <5 | 9 | 109 | 17 | 2 | | | | | | 28.00 | | | | |
| 4129 | 30 | <10 | 23 | 27 | 0.14 | 1.29 | 0.09 | 0.05 | 0.06 | 0.52 | <5 | 53 | 8 | 34 | 58 | 6 | <1 | | | | | | 4.14 | | | | |
| 4130 | 30 | <10 | <5 | 32 | 0.02 | 0.39 | 0.07 | 0.02 | 0.03 | 0.12 | <5 | 20 | <5 | <5 | 3 | 11 | <1 | | | | | | | | | | |
| 4131 | 10 | <10 | 10 | 5 | 0.08 | 2.02 | 0.36 | 0.53 | 0.64 | 0.56 | <5 | 72 | 8 | 19 | 3 | <5 | <1 | | | | | | | | | | |
| 4132 | 18 | <10 | 9 | 26 | 0.12 | 2.36 | 0.57 | 0.41 | 0.72 | 0.57 | <5 | 81 | 5 | 22 | 2 | 6 | <1 | | | | | | | | | | |
| 4133 | 8 | <10 | 16 | <5 | 0.31 | 2.87 | 0.41 | 0.24 | 0.92 | 1.10 | 7.00 | 52 | 6 | 36 | 5 | 9 | <1 | | | | | | | | | | |
| 4134 | 10 | <10 | 9 | 59 | 0.12 | 2.09 | 1.68 | 6.11 | 0.53 | 0.50 | 8.00 | 194 | 17 | 18 | 2 | 6 | <1 | | | | | | | | | | |
| 4135 | 6 | 17 | <5 | 6 | 0.01 | 0.57 | 0.02 | 0.01 | 0.09 | 0.20 | 6.00 | 5 | <5 | <5 | 44 | <5 | <1 | | | | | | | | | | |
| 4136 | 3 | <10 | <5 | <5 | <0.01 | 0.26 | 0.07 | 0.04 | 0.04 | 0.09 | <5 | 4 | <5 | <5 | 91 | 18 | 2 | | | | | | | | | | |
| 4137 | 6 | <10 | 12 | 8 | 0.07 | 1.30 | 0.09 | 0.02 | 0.06 | 0.55 | <5 | 10 | <5 | 9 | 9 | 8 | <1 | | | | | | | | | | |
| 4138 | 5 | <10 | <5 | 34 | <0.01 | 0.17 | 0.06 | <0.01 | 0.03 | 0.05 | 6.00 | 8 | <5 | <5 | 92 | 16 | 1 | | | | | | | | | | |
| 4139 | 3 | <10 | 26 | <5 | <0.01 | 0.28 | 0.06 | <0.01 | 0.04 | 0.10 | <5 | 6 | 7 | <5 | 16 | 6 | <1 | | | | | | 4.99 | | | | |
| 4140 | 44 | <10 | <5 | <5 | 0.04 | 0.89 | 0.02 | 0.09 | 0.04 | 0.34 | <5 | 12 | <5 | <5 | 5 | 11 | <1 | <10 | | | | | | | | | |
| 4141 | 9 | 13 | 10 | 74 | 1.60 | 4.52 | 1.90 | 5.03 | 3.36 | 0.31 | 22.00 | 108 | 28 | 97 | 2 | <5 | 2 | | | | | | | | | | |
| 4142 | 9 | <10 | 11 | <5 | 0.08 | 1.34 | 0.18 | 0.08 | 0.55 | 0.26 | <5 | 31 | 7 | 16 | 1 | <5 | <1 | | | | | | | | | | |
| 4143 | 6 | <10 | 6 | 10 | 0.09 | 0.94 | 0.13 | 0.08 | 0.35 | 0.22 | <5 | 16 | <5 | 14 | 3 | <5 | <1 | | | | | | | | | | |
| 4144 | 34 | <10 | 10 | 41 | 0.31 | 3.38 | 1.17 | 0.35 | 1.52 | 0.54 | 7.00 | 44 | 9 | 40 | 3 | 8 | 1 | | | | | | | | | | |
| 4145 | 10 | 11 | 21 | 32 | 0.36 | 3.59 | 0.23 | 0.25 | 0.11 | 1.24 | 7.00 | 22 | 12 | 41 | 8 | 10 | 1 | | | | | | | | | | |
| 4146 | 8 | <10 | 7 | 16 | 0.11 | 1.15 | 0.10 | 0.05 | 0.07 | 0.72 | 7.00 | 13 | <5 | 18 | 370 | 5 | <1 | | | | | | 2.90 | | | | |
| 4147 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4148 | 10 | <10 | 18 | 28 | 0.25 | 1.84 | 0.13 | 0.03 | 0.09 | 1.03 | <5 | 17 | 6 | 35 | 49 | 7 | <1 | | | | | | 8.48 | | | | |
| 4149 | 13 | <10 | 19 | 14 | 0.15 | 1.58 | 0.12 | 0.18 | 0.07 | 1.00 | <5 | 19 | 14 | 23 | 41 | <5 | 1 | | | | | | 8.68 | | | | |
| 4150 | 2 | 17 | <5 | <5 | 0.01 | 0.22 | <0.01 | 0.01 | 0.02 | 0.08 | <5 | 3 | <5 | <5 | 168 | <5 | 4 | | | | | | 37.54 | | | | |
| 4151 | 11 | <10 | <5 | <5 | 0.01 | 0.23 | 0.05 | 0.01 | 0.04 | 0.10 | <5 | 5 | <5 | <5 | 27 | <5 | 2 | | | | | | | | | | |
| 4152 | 13 | <10 | 12 | <5 | 0.08 | 0.80 | 0.07 | 0.04 | 0.05 | 0.32 | <5 | 17 | <5 | 8 | 23 | <5 | 2 | | | | | | | | | | |
| 4153 | <2 | <10 | 19 | <5 | 0.04 | 1.18 | 0.10 | 0.05 | 0.05 | 0.52 | <5 | 12 | 6 | 15 | 4 | <5 | 2 | | | | | | | | | | |
| 4154 | 3 | <10 | 12 | <5 | 0.05 | 1.50 | 0.23 | 0.11 | 0.09 | 0.76 | <5 | 10 | <5 | 18 | 6 | 5 | 2 | | | | | | | | | | |
| 4155 | 30 | 18 | <5 | <5 | 0.05 | 0.94 | 0.02 | 0.45 | 0.06 | 0.33 | 11.00 | 18 | 7 | 10 | 64 | 5 | <1 | <10 | | | | | | | | | |
| 4156 | 7 | <10 | 7 | <5 | 0.05 | 1.25 | 0.05 | 0.17 | 0.07 | 0.51 | <5 | 10 | <5 | 17 | 17 | 11 | 1 | <10 | | | | | 10.27 | | | | |
| 4157 | 3 | <10 | <5 | <5 | <0.01 | 0.18 | <0.01 | 0.01 | 0.03 | 0.06 | <5 | 3 | <5 | <5 | 17 | 8 | <1 | <10 | | | | | 3.72 | | | | |
| 4158 | 6 | <10 | 16 | <5 | 0.01 | 0.34 | <0.01 | 0.05 | 0.06 | 0.25 | 21.00 | 5 | <5 | 560 | 70 | 9 | <1 | <10 | | | | | | | | | |
| 4159 | 18 | 16 | <5 | <5 | 0.03 | 0.93 | 2.07 | >10.00 | 0.26 | 0.14 | 55.00 | 367 | 43 | 226 | 11 | 12 | 1 | <10 | | | | | | | | | |
| 4160 | 8 | <10 | 15 | <5 | 0.04 | 0.83 | 0.02 | 0.12 | 0.04 | 0.21 | <5 | 72 | 13 | 13 | 2 | <5 | <1 | <10 | | | | | | | | | |
| 4161 | 17 | <10 | <5 | <5 | 0.07 | 1.10 | 2.83 | 8.54 | 0.21 | 0.28 | 22.00 | 70 | 23 | 50 | 2 | 11 | <1 | <10 | | | | | | | | | |
| 4162 | 45 | 19 | 5 | <5 | 0.21 | 2.66 | 1.29 | 1.02 | 0.49 | 0.72 | 25.00 | 59 | 39 | 68 | 3 | 10 | 1 | <10 | | | | | | | | | |
| 4163 | 54 | <10 | <5 | <5 | 0.02 | 0.83 | 0.07 | 0.28 | 0.06 | 0.22 | 18.00 | 18 | <5 | 6 | 36 | 7 | <1 | <10 | | | | | | | | | |
| 4164 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4165 | 50 | <10 | 5 | <5 | 0.06 | 1.00 | 0.05 | 0.42 | 0.08 | 0.27 | <5 | 16 | <5 | 7 | 1 | 10 | <1 | <10 | | | | | | | | | |
| 4166 | 26 | <10 | <5 | <5 | 0.04 | 0.76 | 2.12 | 6.43 | 0.07 | 0.27 | 11.00 | 30 | 12 | 14 | 8 | 10 | 1 | <10 | | | | | | | | | |
| 4167 | 29 | <10 | 11 | <5 | 0.13 | 1.49 | 0.11 | 0.26 | 0.47 | 0.44 | 9.00 | 10 | <5 | 17 | 3 | 14 | <1 | <10 | | | | | | | | | |
| 4168 | 25 | <10 | 7 | <5 | 0.10 | 1.32 | 0.12 | 0.45 | 0.61 | 0.46 | 6.00 | 11 | <5 | 16 | 10 | 5 | <1 | <10 | | | | | | | | | |
| 4169 | 22 | <10 | <5 | <5 | 0.09 | 0.77 | 0.01 | 0.01 | 0.30 | 0.53 | 12.00 | 11 | <5 | 25 | 12 | 9 | <1 | <10 | | | | | | | | | |
| 4170 | 36 | <10 | <5 | <5 | 0.04 | 0.79 | 0.02 | 0.09 | 0.22 | 0.24 | 10.00 | 6 | <5 | 7 | 4 | <5 | <1 | <10 | | | | | | | | | |
| 4171 | 49 | <10 | <5 | <5 | 0.06 | 0.90 | 0.01 | <0.01 | 0.08 | 0.31 | 10.00 | 9 | <5 | 9 | 16 | 11 | <1 | <10 | | | | | | | | | |
| 4172 | 34 | 29 | <5 | <5 | <0.01 | 0.41 | <0.01 | <0.01 | 0.04 | 0.06 | 26.00 | 3 | <5 | <5 | 31 | 7 | <1 | <10 | | | | | | | | | |
| 4173 | 16 | 38 | <5 | <5 | <0.01 | 0.23 | <0.01 | <0.01 | 0.03 | 0.05 | 66.00 | 6 | <5 | <5 | 13 | 9 | 2 | <10 | | | | | | | | | |
| 4174 | 44 | 17 | <5 | <5 | 0.06 | 1.00 | 0.02 | 0.01 | 0.06 | 0.30 | <5 | 11 | <5 | 7 | 32 | <5 | <1 | <10 | | | | | | | | | |
| 4175 | 26 | <10 | <5 | <5 | 0.15 | 2.35 | 1.43 | 0.78 | 0.53 | 0.51 | 11.00 | 59 | 10 | 62 | 3 | 5 | <1 | <10 | | | | | | | | | |

APPENDIX. 1990–1991 CMD Sample Analytical Results

| Sample no. | Li ppm | Ga ppm | La ppm | Ta ppm | Ti % | Al % | Mg % | Ca % | Na % | K % | Nb ppm | Sr ppm | Y % | Zr ppm | Au ppb | Pt ppb | Pd ppb | Ge ppm | Rh ppb | Os ppb | Ir ppb | Ru ppb | Ag o/t | La ppm | Ce ppm | Pr ppm | Nd ppm |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4176 | 22 | <10 | 10 | <5 | 0.06 | 0.85 | 0.02 | <0.01 | 0.04 | 0.35 | <5 | 13 | <5 | 9 | 6 | <5 | <1 | <10 | | | | | | | | | |
| 4177 | 10 | <10 | 12 | <5 | 0.05 | 1.00 | 0.04 | 0.03 | 0.04 | 0.38 | <5 | 26 | 7 | 11 | 4 | <5 | <1 | <10 | | | | | | | | | |
| 4178 | 29 | <10 | <5 | <5 | 0.01 | 0.35 | <0.01 | <0.01 | 0.05 | 0.15 | <5 | 4 | <5 | <5 | 35 | 9 | <1 | <10 | | | | | | | | | |
| 4179 | 12 | <10 | 7 | <5 | 0.08 | 1.12 | 0.03 | 0.68 | 0.08 | 0.52 | <5 | 15 | <5 | 16 | 2 | 8 | <1 | <10 | | | | | | | | | |
| 4180 | 16 | <10 | <5 | <5 | 0.05 | 1.03 | 5.25 | >10.00 | 0.20 | 0.34 | 15.00 | 442 | 10 | 31 | 3 | 5 | <1 | <10 | | | | | | | | | |
| 4181 | 40 | <10 | <5 | <5 | 0.02 | 0.61 | 0.02 | 0.04 | 0.06 | 0.19 | 12.00 | 9 | <5 | 5 | 12 | 8 | <1 | <10 | | | | | | | | | |
| 4182 | 28 | <10 | 8 | <5 | 0.10 | 1.44 | 0.08 | 0.09 | 0.09 | 0.76 | <5 | 13 | <5 | 16 | 29 | 7 | <1 | <10 | | | | | 2.68 | | | | |
| 4183 | 33 | <10 | <5 | <5 | <0.01 | 0.20 | <0.01 | <0.01 | 0.04 | 0.02 | 208.00 | 2 | <5 | 19 | 15 | 5 | 2 | <10 | | | | | 1.60 | | | | |
| 4184 | 54 | <10 | <5 | <5 | 0.03 | 0.68 | 0.02 | 0.03 | 0.06 | 0.19 | <5 | 7 | <5 | <5 | 57 | <5 | <1 | <10 | | | | | | | | | |
| 4185 | 25 | 17 | 19 | <5 | 0.42 | 2.71 | 0.30 | 0.64 | 0.13 | 0.42 | 21.00 | 71 | 12 | 81 | 2 | 7 | 1 | <10 | | | | | | | | | |
| 4186 | 8 | <10 | <5 | <5 | 0.07 | 1.42 | 4.57 | >10.00 | 0.23 | 0.35 | 18.00 | 80 | 14 | 33 | 3 | 10 | 2 | <10 | | | | | | | | | |
| 4187 | 14 | <10 | <5 | <5 | 0.06 | 0.80 | 0.09 | 0.25 | 0.15 | 0.17 | 7.00 | 12 | <5 | <5 | 1 | 12 | 1 | <10 | | | | | | | | | |
| 4188 | 24 | <10 | <5 | <5 | 0.02 | 0.40 | 0.01 | 0.06 | 0.05 | 0.11 | <5 | 9 | <5 | <5 | 7 | 6 | <1 | <10 | | | | | | | | | |
| 4189 | 40 | 30 | 7 | <5 | 0.29 | 3.04 | 0.35 | 0.20 | 0.19 | 0.77 | 19.00 | 35 | 20 | 72 | 2 | 7 | <1 | <10 | | | | | | | | | |
| 4190 | 36 | <10 | 17 | <5 | 0.18 | 2.68 | 0.49 | 0.02 | 0.29 | 0.96 | 10.00 | 102 | 10 | 49 | 7 | <5 | 2 | | | | | | | | | | |
| 4191 | 60 | <10 | 18 | <5 | 0.24 | 3.59 | 1.36 | 2.80 | 1.16 | 0.38 | 19.00 | 196 | 39 | 35 | 422 | 26 | 4 | | | | | | | | | | |
| 4192 | 5 | <10 | 18 | <5 | 0.08 | 1.34 | 0.06 | 0.02 | 0.28 | 0.40 | <5 | 21 | 13 | 22 | 7 | <5 | 1 | | | | | | | | | | |
| 4193 | 4 | <10 | 13 | <5 | <0.01 | 0.14 | 0.03 | >10.00 | 0.06 | 0.04 | 19.00 | 38 | 105 | <5 | 155 | 6 | 1 | | | | | | 9.78 | | | | |
| 4194 | 4 | <10 | 12 | <5 | 0.17 | 1.57 | 0.10 | 0.19 | 0.10 | 0.45 | 21.00 | 10 | 8 | 26 | 57 | 7 | 1 | | | | | | | | | | |
| 4195 | 14 | <10 | <5 | <5 | 0.04 | 0.67 | 0.85 | 2.79 | 0.06 | 0.26 | 5.00 | 39 | 6 | 7 | 7 | 7 | 1 | | | | | | | | | | |
| 4196 | 14 | <10 | 7 | <5 | 0.06 | 1.09 | 0.04 | 0.02 | 0.06 | 0.42 | <5 | 14 | <5 | 11 | 6 | 8 | 1 | | | | | | 2.76 | | | | |
| 4197 | 5 | <10 | <5 | <5 | <0.01 | 0.35 | 0.02 | 0.02 | 0.04 | 0.14 | 6.00 | 3 | <5 | <5 | 8 | 6 | 1 | | | | | | | | | | |
| 4198 | 194 | 18 | 29 | <5 | 0.58 | 5.16 | 0.24 | 0.07 | 0.31 | 1.05 | 23.00 | 79 | 20 | 106 | 3 | <5 | 3 | <10 | | | | | | | | | |
| 4199 | 26 | <10 | <5 | <5 | 0.18 | 2.07 | 0.75 | 1.53 | 0.33 | 0.53 | 10.00 | 63 | 19 | 51 | 39 | 6 | 1 | <10 | | | | | | | | | |
| 4200 | 24 | <10 | 10 | <5 | 0.09 | 1.58 | 0.08 | 0.22 | 0.11 | 0.46 | 13.00 | 11 | 12 | 14 | 4 | 7 | <1 | <10 | | | | | | | | | |
| 4201 | 31 | <10 | <5 | <5 | 0.03 | 0.70 | 0.03 | 0.15 | 0.06 | 0.21 | <5 | 13 | <5 | <5 | 22 | <5 | <1 | <10 | | | | | | | | | |
| 4202 | 13 | <10 | 9 | <5 | 0.04 | 0.71 | 0.03 | 0.07 | 0.05 | 0.26 | <5 | 25 | 11 | 9 | 3 | 7 | 1 | <10 | | | | | | | | | |
| 4203 | 8 | <10 | 9 | <5 | 0.07 | 0.87 | 0.03 | 0.02 | 0.06 | 0.31 | <5 | 32 | 5 | 14 | 2 | 11 | 1 | <10 | | | | | | | | | |
| 4204 | 22 | 46 | 6 | <5 | 0.20 | 3.31 | 2.13 | 1.47 | 0.45 | 1.46 | 23.00 | 63 | 14 | 67 | 1 | 10 | <1 | <10 | | | | | | | | | |
| 4205 | 42 | 18 | <5 | <5 | 0.01 | 0.56 | 0.03 | 0.02 | 0.05 | 0.07 | <5 | 7 | <5 | <5 | 119 | 8 | <1 | <10 | | | | | | | | | |
| 4206 | 15 | 36 | 15 | <5 | 0.26 | 3.39 | 1.51 | 3.41 | 0.38 | 0.85 | 25.00 | 49 | 19 | 58 | 3 | 8 | <1 | <10 | | | | | | | | | |
| 4207 | 127 | 19 | 14 | <5 | 0.35 | 3.41 | 1.48 | 0.89 | 1.67 | 0.55 | 17.00 | 81 | 10 | 52 | 3 | 5 | 1 | <10 | | | | | | | | | |
| 4208 | 27 | <10 | 19 | <5 | 0.22 | 3.37 | 0.65 | 0.03 | 0.28 | 0.60 | 9.00 | 71 | 14 | 58 | 2 | 6 | 3 | | | | | | | | | | |
| 4209 | 6 | <10 | 8 | <5 | 0.08 | 0.99 | 0.03 | <0.01 | 0.24 | 0.28 | 6.00 | 16 | <5 | 16 | 9 | 8 | 3 | | | | | | | | | | |
| 4210 | 36 | <10 | 5 | <5 | 0.05 | 0.56 | 0.01 | <0.01 | 0.06 | 0.20 | 7.00 | 12 | <5 | 12 | 43 | <5 | 1 | | | | | | | | | | |
| 4211 | 22 | <10 | <5 | <5 | 0.02 | 0.53 | 1.20 | 4.04 | 0.09 | 0.07 | 7.00 | 57 | 6 | 5 | 3 | 9 | 1 | | | | | | | | | | |
| 4212 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4213 | 16 | <10 | 9 | <5 | 0.11 | 1.93 | 4.87 | >10.00 | 0.33 | 0.22 | 26.00 | 164 | 26 | 27 | 3 | <5 | 1 | | | | | | | | | | |
| 4214 | 43 | <10 | 9 | <5 | 0.13 | 2.35 | 0.74 | 0.76 | 0.21 | 0.25 | 5.00 | 24 | 8 | 23 | 3 | 7 | 1 | | | | | | | | | | |
| 4216 | 14 | <10 | 12 | <5 | 0.08 | 1.41 | 0.14 | 0.18 | 0.07 | 0.32 | <5 | 33 | 8 | 22 | 3 | 6 | 2 | | | | | | | | | | |
| 4217 | 8 | <10 | 8 | <5 | 0.06 | 1.05 | 0.03 | 3.80 | 0.06 | 0.32 | 6.00 | 33 | 10 | 9 | 11 | <5 | 1 | | | | | | | | | | |
| 4218 | 4 | <10 | 14 | <5 | 0.04 | 0.75 | 0.03 | >10.00 | 0.05 | 0.37 | 18.00 | 28 | 93 | 6 | 11 | 6 | 1 | | | | | | | | | | |
| 4219 | 6 | <10 | 138 | <5 | <0.01 | 0.44 | 0.28 | >10.00 | 0.24 | 0.20 | 29.00 | 741 | 245 | <5 | 4 | 11 | 5 | | | | | | | 40.0 | <50 | 93 | |
| 4220 | 17 | <10 | <5 | <5 | 0.05 | 1.10 | 0.27 | 0.86 | 0.52 | 0.21 | 6.00 | 25 | <5 | 5 | 2 | 9 | 1 | <10 | | | | | | | | | |
| 4221 | 57 | 32 | 28 | <5 | 1.92 | 3.54 | 0.81 | 0.88 | 0.24 | 0.54 | 42.00 | 77 | 16 | 227 | 3 | 8 | <1 | <10 | | | | | | | | | |
| 4222 | 30 | <10 | 7 | <5 | 0.05 | 0.87 | 0.02 | 3.40 | 0.09 | 0.27 | 57.00 | 25 | 8 | 13 | 12 | 6 | 2 | | | | | | | | | | |
| 4223 | 26 | <10 | 17 | <5 | 0.19 | 1.93 | 0.07 | 2.71 | 0.13 | 0.54 | 11.00 | 26 | 14 | 26 | 19 | 8 | 1 | | | | | | | | | | |
| 4224 | 10 | <10 | 6 | <5 | 0.09 | 1.35 | 0.10 | 0.05 | 0.23 | 0.35 | <5 | 17 | <5 | 14 | 5 | 6 | <1 | | | | | | | | | | |
| 4225 | 132 | <10 | 7 | <5 | 0.07 | 1.33 | 0.85 | 1.89 | 0.09 | 0.17 | 5.00 | 36 | 5 | 10 | 2 | 8 | 1 | | | | | | | | | | |
| 4226 | 74 | <10 | 5 | <5 | 0.08 | 1.28 | 0.10 | 0.03 | 0.13 | 0.27 | 33.00 | 13 | <5 | 14 | 16 | 5 | 1 | | | | | | | | | | |
| 4241 | 39 | 11 | 9 | <5 | 0.25 | 2.10 | 0.65 | 1.27 | 0.69 | 0.20 | 9.00 | 33 | 11 | 39 | 5 | 9 | 1 | <10 | | | | | | | | | |
| 5001 | 86 | | −5 | −5 | 0.03 | 0.43 | 0.04 | −0 | −0.01 | 0.11 | −5.00 | 10 | −5 | 12 | 5 | −5 | −10 | | | | | | | | | | |
| 5002 | 40 | −10 | 22 | 21 | 0.16 | 1.10 | 0.09 | 0 | 0.12 | 0.54 | 9.00 | 48 | 17 | 57 | 16 | 25 | 16 | 19 | | | | | | | | | |
| 5003 | 39 | −10 | 19 | 25 | 0.14 | 0.97 | 0.05 | 0 | 0.13 | 0.42 | 6.00 | 39 | 13 | 51 | 31 | 10 | 12 | 28 | | | | | | | | | |
| 5004 | 76 | −10 | −5 | −5 | 0.02 | 0.34 | 0.05 | 0 | −0.01 | 0.05 | −5.00 | 9 | −5 | 7 | 5 | −5 | 4 | −10 | | | | | | | | | |
| 5005 | 31 | −10 | 26 | −5 | 0.18 | 1.19 | 0.11 | 0 | 0.19 | 0.49 | 7.00 | 53 | 15 | 65 | 18 | −5 | 10 | 18 | | | | | | | | | |
| 5006 | 40 | −10 | −5 | −5 | 0.01 | 0.22 | 0.03 | 0 | −0.01 | 0.04 | −5.00 | 7 | −5 | 9 | 5 | 5 | 5 | −10 | | | | | | | | | |
| 5007 | 62 | −10 | 43 | −5 | 0.26 | 1.55 | 0.10 | 0 | 0.17 | 0.53 | 31.00 | 65 | 18 | 130 | 17 | 19 | 11 | 33 | | | | | | | | | |

| Sample no. | Li ppm | Ga ppm | La ppm | Ta ppm | Ti % | Al % | Mg % | Ca % | Na % | K % | Nb ppm | Sr ppm | Y % | Zr ppm | Au ppb | Pt ppb | Pd ppb | Ge ppm | Rh ppb | Os ppb | Ir ppb | Ru ppb | Ag o/t | La ppm | Ce ppm | Pr ppm | Nd ppm |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5008 | 90 | −10 | 56 | −5 | 0.17 | 1.87 | 0.02 | 0 | 0.11 | 0.55 | 65.00 | 54 | 18 | 233 | 21 | 78 | 13 | 32 | | | | | | | | | |
| 5009 | 115 | −10 | 46 | 25 | 0.28 | 2.64 | 0.02 | 0 | 0.19 | 0.86 | 84.00 | 37 | 20 | 289 | 19 | 78 | 8 | 31 | | | | | | | | | |
| 5010 | 60 | −10 | 45 | −5 | 0.18 | 2.28 | −0.01 | 0 | 0.13 | 1.09 | 21.00 | 46 | 29 | 156 | 20 | 91 | 10 | 18 | | | | | | | | | |
| 5011 | 69 | −10 | 25 | −5 | 0.37 | 2.13 | −0.01 | 0 | 0.16 | 0.77 | 36.00 | 51 | 22 | 226 | 16 | 86 | 7 | 21 | | | | | | | | | |
| 5012 | 57 | −10 | 34 | −5 | 0.54 | 2.04 | −0.01 | 0 | 0.15 | 0.91 | 65.00 | 59 | 27 | 262 | 43 | 221 | 19 | 22 | | | | | | | | | |
| 5013 | 61 | −10 | 42 | −5 | 0.44 | 1.87 | 0.02 | 0 | 0.14 | 0.88 | 34.00 | 46 | 28 | 224 | 11 | −5 | 6 | 22 | | | | | | | | | |
| 5014 | 21 | −10 | 17 | −5 | 0.15 | 0.92 | −0.01 | −0 | 0.05 | 0.34 | 8.00 | 27 | 14 | 55 | 6 | −5 | 8 | 17 | | | | | | | | | |
| 5015 | 86 | −10 | 10 | −5 | 0.13 | 1.14 | 0.22 | 0 | 0.14 | 0.32 | −5.00 | 34 | −5 | 27 | 4 | −5 | 4 | −10 | | | | | | | | | |
| 5016 | 36 | −10 | 28 | −5 | 0.33 | 1.03 | 0.05 | 0 | 0.18 | 0.45 | 24.00 | 40 | 15 | 96 | −5 | | 8 | 46 | | | | | | | | | |
| 5017 | 87 | −10 | 16 | 9 | 0.18 | 1.39 | 0.07 | −0 | 0.19 | 0.89 | 92.00 | 27 | 12 | 307 | −5 | | 5 | 28 | | | | | | | | | |
| 5018 | 64 | −10 | 33 | −5 | 0.24 | 1.76 | 0.08 | 0 | 0.17 | 0.86 | 63.00 | 40 | 17 | 279 | −5 | | 3 | 30 | | | | | | | | | |
| 5019 | 66 | −10 | 27 | −5 | 0.26 | 2.37 | 0.09 | 0 | 0.18 | 0.83 | 84.00 | 62 | 16 | 356 | −5 | | 6 | 35 | | | | | | | | | |
| 5020 | 61 | −10 | 56 | −5 | 0.24 | 1.94 | 0.04 | 0 | 0.17 | 0.97 | 59.00 | 52 | 16 | 263 | −5 | | 2 | 27 | | | | | | | | | |
| 5021 | 60 | −10 | 36 | −5 | 0.15 | 1.89 | 0.09 | 1 | 0.18 | 0.50 | 85.00 | 57 | 20 | 186 | 78 | | 16 | 21 | | | | | | | | | |
| 5022 | 15 | −10 | 17 | −5 | 0.10 | 1.79 | 0.15 | 1 | 0.18 | 0.34 | 20.00 | 40 | 29 | 44 | 40 | | 13 | −10 | | | | | | | | | |
| 5023 | 47 | −10 | 29 | −5 | 0.27 | 1.75 | 0.07 | 0 | 0.16 | 0.42 | 48.00 | 46 | 18 | 134 | −5 | | 10 | 22 | | | | | | | | | |
| 5024 | 22 | −10 | 25 | 7 | 0.13 | 1.03 | 0.12 | 0 | 0.01 | 0.54 | −5.00 | 41 | 14 | 42 | −5 | | 10 | −10 | | | | | | | | | |
| 5025 | 29 | −10 | 26 | 24 | 0.15 | 1.77 | 0.22 | 1 | 0.19 | 0.61 | −5.00 | 60 | 40 | 53 | −5 | | 24 | −10 | | | | | | | | | |
| 5026 | 24 | −10 | 33 | −5 | 0.11 | 1.77 | 0.18 | 2 | 0.09 | 0.49 | −5.00 | 58 | 49 | 54 | −5 | | 23 | 18 | | | | | | | | | |
| 5027 | 22 | −10 | 40 | −5 | 0.13 | 1.90 | 0.17 | 2 | 0.05 | 0.44 | −5.00 | 73 | 61 | 83 | −5 | | 40 | 22 | | | | | | | | | |
| 5028 | 13 | −10 | −5 | 86 | −0.01 | 0.12 | 0.02 | 0 | −0.01 | −0.01 | −5.00 | 5 | −5 | −5 | 2 | −5 | 4 | −10 | | | | | | | | | |
| 5029 | 22 | −10 | −5 | −5 | −0.01 | 0.13 | 0.02 | 0 | −0.01 | −0.01 | −5.00 | 4 | −5 | −5 | 2 | −5 | 3 | −10 | | | | | | | | | |
| 5030 | 48 | −10 | 19 | 13 | 0.30 | 1.92 | 0.30 | 0 | 0.35 | 0.76 | 11.00 | 57 | 10 | 101 | 3 | −5 | 7 | 12 | | | | | | | | | |
| 5031 | 26 | 11 | 40 | −5 | 0.20 | 2.02 | 0.18 | 0 | 0.04 | 0.84 | 9.00 | 39 | 8 | 85 | 4 | 6 | 17 | −10 | | | | | | | | | |
| 5032 | 51 | −10 | −5 | −5 | 0.01 | 0.29 | 0.03 | 0 | −0.01 | 0.05 | −5.00 | 8 | −5 | 6 | 2 | −5 | 4 | −10 | | | | | | | | | |
| 5033 | 41 | −10 | 27 | 13 | 0.18 | 1.11 | 0.07 | 0 | −0.01 | 0.44 | 10.00 | 37 | 7 | 78 | 8 | 6 | 15 | 19 | | | | | | | | | |
| 5034 | 64 | −10 | −5 | 22 | 0.03 | 0.45 | 0.04 | 0 | −0.01 | 0.09 | −5.00 | 11 | −5 | 13 | 5 | 9 | 4 | −10 | | | | | | | | | |
| 5035 | 25 | −10 | 41 | 12 | 0.13 | 2.19 | 0.20 | 0 | 0.12 | 0.82 | 9.00 | 53 | 25 | 86 | 7 | −5 | 11 | 11 | | | | | | | | | |
| 5036 | 79 | −10 | −5 | −5 | 0.03 | 0.48 | 0.04 | −0 | −0.01 | 0.12 | −5.00 | 17 | −5 | 13 | 3 | −5 | 3 | −10 | | | | | | | | | |
| 5037 | 36 | −10 | 36 | −5 | 0.10 | 1.69 | 0.10 | 0 | 0.04 | 0.59 | 6.00 | 41 | 13 | 65 | 7 | −5 | 9 | 22 | | | | | | | | | |
| 5038 | 39 | −10 | 11 | 46 | 0.11 | 1.36 | 0.10 | −0 | 0.03 | 0.52 | −5.00 | 27 | 6 | 39 | 5 | −5 | 3 | −10 | | | | | | | | | |
| 5039 | 44 | −10 | 29 | 65 | 0.15 | 1.57 | 0.11 | 0 | 0.04 | 0.68 | −5.00 | 100 | 10 | 65 | 4 | −5 | 7 | 12 | | | | | | | | | |
| 5040 | 15 | −10 | −5 | −5 | −0.01 | 0.06 | 0.02 | −0 | −0.01 | −0.01 | −5.00 | 26 | −5 | −5 | 3 | 8 | 2 | −10 | | | | | | | | | |
| 5041 | 93 | 18 | 9 | 20 | 0.32 | 1.13 | 0.14 | −0 | 0.19 | 1.00 | 79.00 | 70 | −5 | 206 | 7 | −5 | 9 | 19 | | | | | | | | | |
| 5042 | 61 | −10 | 5 | 19 | 0.40 | 2.60 | 1.13 | 2 | 0.87 | 0.19 | 11.00 | 75 | 10 | 41 | 3 | 10 | 6 | −10 | | | | | | | | | |
| 5043 | 76 | 23 | −5 | −5 | 0.17 | 1.03 | 0.07 | 0 | 0.19 | 0.91 | 168.00 | 19 | −5 | 337 | 5 | 31 | 8 | 34 | | | | | | | | | |
| 5044 | 12 | −10 | −5 | −5 | 0.65 | 3.38 | 2.06 | 5 | 1.59 | 0.17 | 13.00 | 133 | 11 | 38 | 3 | 11 | 10 | −10 | | | | | | | | | |
| 5045 | 60 | 28 | 36 | 14 | 0.17 | 1.89 | 0.14 | 0 | 0.14 | 0.82 | 136.00 | 63 | 7 | 447 | 5 | −5 | 3 | 37 | | | | | | | | | |
| 5046 | 94 | 19 | 50 | 7 | 0.27 | 3.14 | 0.15 | 0 | 0.28 | 1.22 | 140.00 | 64 | 10 | 401 | 2 | 6 | 4 | 30 | | | | | | | | | |
| 5047 | 91 | 20 | 58 | −5 | 0.27 | 2.09 | 0.13 | 0 | 0.20 | 1.03 | 131.00 | 59 | 12 | 392 | 5 | −5 | 5 | 30 | | | | | | | | | |
| 5048 | 83 | 11 | 35 | −5 | 0.15 | 1.61 | 0.05 | 0 | 0.06 | 0.69 | 42.00 | 38 | 9 | 271 | 2 | 10 | 2 | 24 | | | | | | | | | |
| 5049 | 121 | 16 | 50 | −5 | 0.29 | 3.12 | 0.06 | 0 | 0.20 | 0.72 | 168.00 | 91 | 12 | 607 | 3 | −5 | −1 | 50 | | | | | | | | | |
| 5050 | 93 | −10 | 27 | −5 | 0.17 | 1.67 | 0.04 | 0 | 0.05 | 0.46 | 45.00 | 22 | 10 | 189 | 5 | −5 | 3 | 18 | | | | | | | | | |
| 5051 | 90 | 24 | 70 | −5 | 0.34 | 6.64 | 0.16 | 0 | 0.48 | 1.29 | 167.00 | 83 | 20 | 683 | 4 | −5 | −1 | 41 | | | | | | | | | |
| 5052 | 82 | −10 | 27 | −5 | 0.31 | 1.45 | 0.02 | −0 | 0.03 | 0.09 | 38.00 | 28 | 26 | 477 | 2 | 7 | 3 | −10 | | | | | | | | | |
| 5053 | 98 | 21 | 72 | 38 | 0.41 | 2.56 | 0.13 | 0 | 0.29 | 0.90 | 140.00 | 95 | 18 | 451 | 3 | −5 | 2 | 28 | | | | | | | | | |
| 5054 | 118 | −10 | 37 | −5 | 0.36 | 1.43 | 0.03 | 0 | 0.05 | 0.39 | 49.00 | 28 | 10 | 228 | 1 | −5 | 2 | 15 | | | | | | | | | |
| 5055 | 148 | 16 | 44 | 11 | 0.53 | 2.93 | 0.05 | 0 | 0.21 | 0.63 | 100.00 | 48 | 15 | 381 | 3 | 7 | −1 | 21 | | | | | | | | | |
| 5056 | 128 | 13 | 16 | −5 | 0.40 | 1.82 | 0.03 | −0 | 0.07 | 0.50 | 68.00 | 12 | 11 | 254 | 2 | −5 | 2 | 11 | | | | | | | | | |
| 5057 | 137 | 20 | 43 | 27 | 0.40 | 2.46 | 0.06 | 0 | 0.15 | 0.63 | 59.00 | 36 | 11 | 275 | −5 | | −1 | 15 | | | | | | | | | |
| 5058 | 116 | −10 | 16 | 44 | 0.37 | 1.37 | 0.02 | 0 | 0.04 | 0.20 | 48.00 | 14 | 8 | 206 | 1 | 9 | 2 | −10 | | | | | | | | | |
| 5059 | 119 | −10 | 8 | 8 | 0.37 | 3.19 | 0.06 | 0 | 0.27 | 0.47 | 79.00 | 27 | 5 | 239 | 10 | 7 | 2 | 30 | | | | | | | | | |
| 5060 | 102 | 10 | 25 | 55 | 0.36 | 1.09 | 0.03 | −0 | 0.04 | 0.31 | 36.00 | 18 | 9 | 167 | 3 | −5 | 3 | 17 | | | | | | | | | |
| 5061 | 151 | 25 | 68 | 32 | 0.47 | 3.33 | 0.06 | 0 | 0.20 | 0.98 | 86.00 | 133 | 15 | 418 | 5 | −5 | 1 | 27 | | | | | | | | | |
| 5062 | 92 | −10 | 17 | −5 | 0.35 | 3.70 | 0.03 | 0 | 0.21 | 0.22 | 72.00 | 17 | 12 | 240 | −1 | −5 | 2 | 17 | | | | | | | | | |
| 5063 | 149 | −10 | 11 | 22 | 0.48 | 3.00 | 0.04 | 0 | 0.19 | 0.42 | 91.00 | 33 | 8 | 332 | 7 | 6 | 2 | 50 | | | | | | | | | |
| 5064 | 107 | 18 | 45 | −5 | 0.68 | 3.29 | 0.10 | 0 | 0.22 | 0.90 | 98.00 | 52 | 25 | 393 | 1 | 15 | 2 | 24 | | | | | | | | | |
| 5065 | 79 | 26 | 49 | 7 | 0.57 | 2.64 | 0.14 | 0 | 0.20 | 0.97 | 85.00 | 47 | 24 | 318 | 3 | 36 | 3 | 17 | | | | | | | | | |

| Sample no. | Li ppm | Ga ppm | La ppm | Ta ppm | Ti % | Al % | Mg % | Ca % | Na % | K % | Nb ppm | Sr ppm | Y % | Zr ppm | Au ppb | Pt ppb | Pd ppb | Ge ppm | Rh ppb | Os ppb | Ir ppb | Ru ppb | Ag o/t | La ppm | Ce ppm | Pr ppm | Nd ppm |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5066 | 86 | 16 | 42 | 24 | 0.80 | 3.17 | 0.12 | 0 | 0.18 | 0.84 | 84.00 | 51 | 18 | 306 | 3 | 11 | 5 | 21 | | | | | | | | | |
| 5067 | 65 | −10 | 27 | 30 | 0.15 | 1.53 | 0.05 | −0 | 0.04 | 0.68 | 55.00 | 26 | 8 | 258 | 2 | 7 | 3 | 24 | | | | | | | | | |
| 5068 | 76 | 26 | 46 | −5 | 0.30 | 3.69 | 0.08 | 0 | 0.19 | 0.77 | 139.00 | 38 | 15 | 654 | −1 | −5 | 48 | | | | | | | | | | |
| 5069 | 52 | −10 | 13 | −5 | 0.03 | 0.72 | 0.03 | −0 | −0.01 | 0.09 | 21.00 | 16 | −5 | 47 | 3 | 11 | 3 | −10 | | | | | | | | | |
| 5070 | 74 | −10 | 11 | 63 | 0.38 | 2.05 | 0.09 | 0 | 0.30 | 0.75 | 161.00 | 70 | 6 | 287 | 9 | 5 | 3 | 70 | | | | | | | | | |
| 5071 | 71 | 17 | 70 | 13 | 0.42 | 2.50 | 0.12 | 0 | 0.16 | 0.87 | 149.00 | 112 | 13 | 305 | 6 | 8 | 8 | 33 | | | | | | | | | |
| 5072 | 29 | 10 | 34 | −5 | 0.23 | 1.95 | 0.18 | 0 | 0.06 | 0.67 | 29.00 | 50 | 9 | 109 | 12 | −5 | 15 | 11 | | | | | | | | | |
| 5073 | 10 | −10 | 32 | 7 | 0.09 | 1.82 | 0.10 | 0 | 0.08 | 0.38 | 15.00 | 26 | 33 | 47 | 27 | −5 | 21 | −10 | | | | | | | | | |
| 5074 | 10 | −10 | 17 | −5 | 0.09 | 1.27 | 0.11 | 0 | 0.09 | 0.40 | 13.00 | 23 | 10 | 56 | 13 | 8 | 18 | −10 | | | | | | | | | |
| 5075 | 23 | −10 | 23 | −5 | 0.15 | 1.85 | 0.13 | 0 | 0.09 | 0.45 | 15.00 | 42 | 8 | 75 | 7 | −5 | 7 | −10 | | | | | | | | | |
| 5076 | 151 | 13 | 42 | 27 | 0.28 | 2.36 | 0.03 | 0 | 0.09 | 0.40 | 93.00 | 40 | 18 | 374 | 2 | 7 | 2 | 32 | | | | | | | | | |
| 5077 | 154 | 19 | 57 | 34 | 0.49 | 3.45 | 0.13 | 0 | 0.35 | 0.62 | 155.00 | 84 | 25 | 511 | 23 | 16 | 4 | 37 | | | | | | | | | |
| 5078 | 50 | 19 | 57 | 17 | 0.52 | 2.95 | 0.22 | 0 | 1.13 | 1.20 | 85.00 | 46 | 26 | 290 | 4 | 10 | 2 | 15 | | | | | | | | | |
| 5079 | 12 | −10 | 25 | −5 | 0.38 | 1.53 | 0.09 | 0 | 2.47 | 1.52 | 63.00 | 47 | 12 | 247 | 2 | −5 | 2 | 14 | | | | | | | | | |
| 5080 | 48 | 15 | 40 | 11 | 0.47 | 2.62 | 0.26 | 0 | 0.97 | 1.11 | 77.00 | 47 | 17 | 237 | 2 | 8 | 2 | 12 | | | | | | | | | |
| 5081 | 44 | −10 | 21 | −5 | 0.35 | 1.98 | 0.11 | 1 | 1.57 | 1.69 | 67.00 | 115 | 11 | 216 | 3 | 7 | 2 | 12 | | | | | | | | | |
| 5082 | 45 | 17 | 47 | 10 | 0.36 | 2.28 | 0.25 | 0 | 0.60 | 1.25 | 54.00 | 72 | 17 | 203 | 22 | 26 | 11 | 14 | | | | | | | | | |
| 5083 | 75 | 10 | 28 | −5 | 0.23 | 1.34 | 0.05 | −0 | 0.05 | 0.62 | 50.00 | 28 | 9 | 167 | 5 | 10 | 3 | 35 | | | | | | | | | |
| 5084 | 192 | 25 | 23 | 70 | 0.40 | 3.88 | 0.07 | 0 | 0.32 | 1.08 | 206.00 | 54 | 24 | 903 | 13 | 5 | 2 | 91 | | | | | | | | | |
| 5085 | 150 | −10 | 31 | −5 | 0.16 | 0.91 | 0.02 | −0 | 0.02 | 0.14 | 54.00 | 18 | 9 | 205 | 19 | 7 | 2 | 53 | | | | | | | | | |
| 5086 | 696 | 24 | 28 | 31 | 0.43 | 2.58 | 0.05 | 0 | 0.17 | 0.62 | 164.00 | 70 | 18 | 619 | 54 | 6 | 1 | 74 | | | | | | | | | |
| 5087 | 53 | 11 | 29 | 5 | 0.33 | 2.17 | 0.24 | 0 | 0.34 | 0.71 | 25.00 | 94 | 11 | 120 | 22 | 10 | 6 | 26 | | | | | | | | | |
| 5088 | 95 | 10 | 30 | −5 | 0.15 | 1.08 | 0.04 | −0 | 0.02 | 0.36 | 43.00 | 30 | 9 | 151 | 10 | 5 | 2 | 33 | | | | | | | | | |
| 5089 | 65 | −10 | −5 | −5 | 0.02 | 0.35 | 0.04 | −0 | −0.01 | 0.09 | −5.00 | 14 | −5 | 13 | 10 | 12 | 6 | −10 | | | | | | | | | |
| 5090 | 33 | −10 | 32 | 8 | 0.05 | 1.23 | 0.04 | −0 | 0.01 | 0.21 | 32.00 | 29 | −5 | 114 | 4 | 10 | 5 | −10 | | | | | | | | | |
| 5091 | 55 | −10 | 81 | −5 | 0.22 | 2.44 | 0.06 | 0 | 0.08 | 0.38 | 88.00 | 136 | 12 | 253 | 9 | −5 | 4 | 21 | | | | | | | | | |
| 5092 | 38 | −10 | 7 | 34 | 0.03 | 0.43 | 0.07 | 0 | 0.02 | 0.03 | 6.00 | 14 | −5 | 16 | 6 | 7 | 4 | −10 | | | | | | | | | |
| 5093 | 59 | 11 | 55 | 20 | 0.23 | 2.31 | 0.11 | 0 | 0.12 | 0.58 | 73.00 | 80 | 10 | 192 | 14 | −5 | 10 | 24 | | | | | | | | | |
| 5094 | 71 | −10 | 27 | −5 | 0.06 | 1.05 | 0.04 | −0 | 0.02 | 0.23 | 31.00 | 26 | 5 | 105 | 4 | 9 | 4 | 15 | | | | | | | | | |
| 5095 | 78 | 14 | 53 | 6 | 0.24 | 2.72 | 0.12 | 0 | 0.18 | 0.81 | 129.00 | 71 | 11 | 299 | 9 | −5 | 6 | 27 | | | | | | | | | |
| 5096 | 66 | −10 | 12 | −5 | 0.03 | 0.70 | 0.04 | 0 | −0.01 | 0.12 | 14.00 | 17 | −5 | 39 | 4 | 10 | 5 | −10 | | | | | | | | | |
| 5097 | 78 | 14 | 63 | −5 | 0.28 | 2.92 | 0.14 | 0 | 0.19 | 0.80 | 134.00 | 80 | 13 | 339 | 8 | −5 | 5 | 25 | | | | | | | | | |
| 5098 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5099 | 104 | −10 | 16 | −5 | 0.34 | 1.05 | 0.02 | −0 | 0.04 | 0.37 | 43.00 | 9 | 8 | 198 | 2 | 7 | 3 | −10 | | | | | | | | | |
| 5100 | 172 | 27 | 53 | −5 | 0.64 | 7.71 | 0.03 | 0 | 0.43 | 0.78 | 136.00 | 60 | 17 | 478 | 4 | −5 | 1 | 24 | | | | | | | | | |
| 5101 | 86 | −10 | 7 | 26 | 0.05 | 0.74 | 0.05 | −0 | −0.01 | 0.18 | 7.00 | 14 | −5 | 28 | 4 | 10 | 4 | −10 | | | | | | | | | |
| 5102 | 343 | 25 | 27 | 24 | 0.53 | 2.69 | 0.08 | 0 | 0.20 | 0.71 | 119.00 | 67 | 18 | 399 | 24 | 8 | 2 | 62 | | | | | | | | | |
| 5103 | 48 | −10 | 7 | −5 | 0.13 | 0.73 | 0.05 | −0 | −0.01 | 0.22 | 7.00 | 26 | −5 | 23 | 15 | 8 | 5 | −10 | | | | | | | | | |
| 5105 | 104 | 17 | 31 | 18 | 0.37 | 2.53 | 0.20 | 0 | 0.23 | 1.25 | 88.00 | 154 | 11 | 265 | 4 | −5 | 4 | 16 | | | | | | | | | |
| 5106 | 94 | 18 | 79 | −5 | 0.32 | 2.92 | 0.14 | 0 | 0.21 | 1.23 | 116.00 | 93 | 14 | 398 | 4 | 7 | 1 | 23 | | | | | | | | | |
| 5107 | 65 | 14 | 47 | −5 | 0.24 | 2.73 | 0.15 | 0 | 0.21 | 0.60 | 113.00 | 79 | 19 | 237 | 6 | 9 | 6 | 19 | | | | | | | | | |
| 5108 | 47 | 11 | 32 | 17 | 0.30 | 3.33 | 0.21 | 0 | 0.24 | 0.67 | 82.00 | 80 | 24 | 244 | 10 | 15 | 9 | 27 | | | | | | | | | |
| 5109 | 51 | −10 | 34 | −5 | 0.28 | 2.43 | 0.15 | 0 | 0.16 | 0.61 | 71.00 | 80 | 20 | 158 | 6 | 8 | 6 | 16 | | | | | | | | | |
| 5110 | 50 | −10 | 8 | −5 | 0.09 | 1.55 | 0.11 | 0 | −0.01 | 0.37 | −5.00 | 33 | −5 | 24 | 6 | 8 | 5 | −10 | | | | | | | | | |
| 5111 | 26 | −10 | 29 | 9 | 0.20 | 1.93 | 0.18 | 0 | 0.08 | 0.47 | 17.00 | 56 | 24 | 69 | 9 | 16 | 11 | −10 | | | | | | | | | |
| 5112 | 43 | −10 | 7 | −5 | 0.08 | 1.47 | 0.12 | 0 | 0.01 | 0.32 | −5.00 | 35 | −5 | 20 | 5 | 8 | 5 | −10 | | | | | | | | | |
| 5113 | 22 | 12 | 24 | −5 | 0.14 | 2.00 | 0.20 | 1 | 0.13 | 0.47 | 5.00 | 60 | 35 | 50 | 12 | 8 | 11 | −10 | | | | | | | | | |
| 5114 | 31 | −10 | 33 | −5 | 0.16 | 2.32 | 0.19 | 2 | 0.11 | 0.47 | −5.00 | 98 | 37 | 68 | 12 | 12 | 17 | 12 | | | | | | | | | |
| 5115 | 85 | −10 | −5 | −5 | 0.04 | 0.58 | 0.04 | −0 | −0.01 | 0.13 | −5.00 | 12 | −5 | 13 | 4 | 8 | 4 | −10 | | | | | | | | | |
| 5116 | 38 | −10 | 32 | −5 | 0.33 | 2.27 | 0.35 | 0 | 0.44 | 0.78 | 9.00 | 89 | 14 | 116 | 12 | 8 | 10 | −10 | | | | | | | | | |
| 5117 | 33 | −10 | −5 | −5 | 0.28 | 2.81 | 1.57 | 3 | 0.65 | 0.21 | −5.00 | 95 | 8 | 23 | 4 | 11 | 5 | −10 | | | | | | | | | |
| 5118 | 49 | −10 | 23 | 34 | 0.35 | 2.69 | 0.39 | 0 | 0.35 | 0.90 | 12.00 | 89 | 16 | 98 | 13 | 32 | 7 | −10 | | | | | | | | | |
| 5119 | 95 | −10 | 9 | −5 | 0.10 | 1.31 | 0.09 | 0 | −0.01 | 0.37 | −5.00 | 41 | −5 | 23 | 4 | 9 | 5 | −10 | | | | | | | | | |
| 5120 | 59 | 11 | 31 | −5 | 0.48 | 2.75 | 0.22 | 0 | 0.24 | 0.54 | 19.00 | 117 | 13 | 142 | 17 | 31 | 14 | 41 | | | | | | | | | |
| 5121 | 19 | −10 | −5 | 81 | 0.02 | 0.36 | 0.04 | 0 | −0.01 | 0.07 | −5.00 | 17 | −5 | −5 | 2 | 8 | 3 | −10 | | | | | | | | | |
| 5122 | 65 | 14 | 5 | −5 | 0.37 | 3.14 | 0.18 | 0 | 0.17 | 0.91 | 13.00 | 194 | −5 | 108 | 10 | 42 | 10 | 11 | | | | | | | | | |
| 5123 | 24 | −10 | 38 | −5 | 0.21 | 2.16 | 0.19 | 0 | 0.05 | 0.95 | 21.00 | 51 | 10 | 92 | 10 | 30 | 13 | −10 | | | | | | | | | |
| 5124 | 50 | −10 | 13 | 47 | 0.09 | 1.56 | 0.08 | 0 | 0.02 | 0.39 | 10.00 | 36 | −5 | 54 | 3 | 10 | 4 | −10 | | | | | | | | | |

| Sample no. | Li ppm | Ga ppm | La ppm | Ta ppm | Ti % | Al % | Mg % | Ca % | Na % | K % | Nb ppm | Sr ppm | Y % | Zr ppm | Au ppb | Pt ppb | Pd ppb | Ge ppm | Rh ppb | Os ppb | Ir ppb | Ru ppb | Ag o/t | La ppm | Ce ppm | Pr ppm | Nd ppm |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5125 | 60 | −10 | 32 | −5 | 0.09 | 2.15 | 0.23 | 1 | 0.07 | 0.45 | 31.00 | 46 | 6 | 103 | 4 | 17 | 5 | −10 | | | | | | | | | |
| 5126 | 91 | 19 | 65 | −5 | 0.37 | 6.42 | 0.20 | 0 | 0.38 | 1.97 | 100.00 | 83 | 22 | 409 | 9 | 40 | 3 | 24 | | | | | | | | | |
| 5127 | 124 | −10 | 41 | −5 | 0.39 | 7.05 | 0.04 | 0 | 0.22 | 0.35 | 83.00 | 19 | 17 | 311 | 2 | 7 | −1 | −10 | | | | | | | | | |
| 5128 | 140 | 11 | 34 | −5 | 0.44 | 7.10 | 0.03 | 0 | 0.21 | 0.37 | 82.00 | 18 | 17 | 308 | 3 | −5 | −1 | −10 | | | | | | | | | |
| 5129 | 96 | 16 | 55 | 38 | 0.36 | 6.07 | 0.04 | 0 | 0.14 | 0.27 | 73.00 | 49 | 24 | 295 | 2 | −5 | −1 | −10 | | | | | | | | | |
| 5130 | 138 | 16 | 35 | 37 | 0.52 | 3.52 | 0.06 | 0 | 0.18 | 1.40 | 77.00 | 58 | 13 | 334 | 9 | 28 | 2 | 18 | | | | | | | | | |
| 5131 | 147 | 15 | 50 | −5 | 0.45 | 7.50 | 0.04 | 0 | 0.18 | 0.46 | 80.00 | 24 | 19 | 359 | −1 | −5 | −1 | −10 | | | | | | | | | |
| 5132 | 149 | 22 | 57 | −5 | 0.32 | 3.46 | 0.07 | 0 | 0.16 | 0.94 | 55.00 | 44 | 14 | 315 | 14 | 48 | 3 | 19 | | | | | | | | | |
| 5133 | 146 | 13 | 35 | −5 | 0.40 | 7.22 | 0.04 | 0 | 0.16 | 0.54 | 69.00 | 19 | 19 | 334 | 2 | 6 | −1 | −10 | | | | | | | | | |
| 5134 | 115 | 18 | 38 | −5 | 0.44 | 3.88 | 0.07 | 0 | 0.25 | 1.09 | 94.00 | 41 | 14 | 408 | 13 | 57 | 5 | 20 | | | | | | | | | |
| 5135 | 131 | 13 | 49 | −5 | 0.44 | 5.28 | 0.03 | 0 | 0.06 | 0.26 | 54.00 | 29 | 23 | 345 | 2 | −5 | −1 | −10 | | | | | | | | | |
| 5136 | 147 | 20 | 61 | 34 | 0.48 | 3.89 | 0.07 | 0 | 0.25 | 1.21 | 89.00 | 55 | 17 | 391 | 5 | 8 | 5 | 18 | | | | | | | | | |
| 5137 | 84 | 11 | 38 | 20 | 0.58 | 2.93 | 0.14 | 0 | 0.14 | 0.66 | 61.00 | 73 | 20 | 214 | 3 | −5 | 3 | 18 | | | | | | | | | |
| 5138 | 20 | −10 | 21 | 30 | 0.11 | 1.76 | 0.10 | 0 | 0.07 | 0.37 | 20.00 | 30 | 8 | 63 | 5 | 14 | 12 | −10 | | | | | | | | | |
| 5139 | 61 | −10 | 8 | −5 | 0.04 | 0.55 | 0.04 | 0 | −0.01 | 0.10 | −5.00 | 12 | −5 | 16 | 4 | 5 | 5 | −10 | | | | | | | | | |
| 5140 | 38 | −10 | 45 | 7 | 0.16 | 2.05 | 0.16 | 0 | 0.11 | 0.84 | 24.00 | 37 | 15 | 115 | 19 | 5 | 24 | 25 | | | | | | | | | |
| 5141 | 71 | −10 | 6 | −5 | 0.05 | 0.87 | 0.06 | −0 | −0.01 | 0.21 | −5.00 | 16 | −5 | 18 | 3 | −5 | 1 | −10 | | | | | | | | | |
| 5142 | 45 | −10 | 30 | 15 | 0.16 | 1.56 | 0.09 | 0 | 0.05 | 0.63 | 6.00 | 57 | 9 | 33 | 5 | 9 | | 21 | | | | | | | | | |
| 5143 | 74 | −10 | −5 | −5 | 0.21 | 1.58 | 0.68 | 1 | 0.39 | 0.14 | −5.00 | 48 | 7 | 26 | 3 | 7 | 3 | −10 | | | | | | | | | |
| 5144 | 64 | 13 | 22 | 5 | 0.39 | 2.86 | 0.45 | 0 | 0.47 | 1.78 | 63.00 | 74 | 10 | 206 | −5 | | 23 | | | | | | | | | | |
| 5145 | 103 | −10 | −5 | 36 | 0.02 | 0.47 | 0.03 | 0 | −0.01 | 0.09 | −5.00 | 23 | −5 | 7 | 5 | 5 | 3 | −10 | | | | | | | | | |
| 5146 | 24 | −10 | 13 | 30 | 0.16 | 2.04 | 0.54 | 1 | 0.39 | 0.28 | −5.00 | 140 | 15 | 41 | 2 | 7 | 3 | −10 | | | | | | | | | |
| 5147 | 75 | 13 | 46 | −5 | 0.39 | 3.01 | 0.34 | 0 | 0.49 | 1.92 | 84.00 | 146 | 20 | 279 | 2 | 10 | 7 | 18 | | | | | | | | | |
| 5148 | 52 | 10 | 32 | 8 | 0.21 | 3.97 | 0.30 | 1 | 0.33 | 1.67 | 69.00 | 122 | 19 | 182 | 8 | 20 | 12 | 11 | | | | | | | | | |
| 5149 | 51 | −10 | 32 | 66 | 0.07 | 3.24 | 1.11 | 9 | 0.03 | 0.05 | 54.00 | 65 | 9 | 167 | −1 | 7 | −1 | −10 | | | | | | | | | |
| 5150 | 141 | 20 | 68 | 6 | 0.27 | 4.85 | 0.20 | 2 | 0.30 | 0.57 | 293.00 | 104 | 20 | 653 | 2 | −5 | 4 | 42 | | | | | | | | | |
| 5151 | 11 | −10 | −5 | 25 | −0.01 | 0.31 | 0.03 | 0 | −0.01 | −0.01 | 10.00 | 6 | −5 | 30 | 1 | 9 | 2 | −10 | | | | | | | | | |
| 5152 | 104 | 17 | 95 | −5 | 0.31 | 9.22 | 0.15 | 0 | 0.61 | 0.71 | 180.00 | 133 | 20 | 437 | 7 | 5 | 9 | 26 | | | | | | | | | |
| 5153 | 35 | 15 | 31 | 19 | 0.21 | 2.48 | 0.22 | 0 | 0.18 | 0.59 | 20.00 | 66 | 23 | 73 | 4 | −5 | 9 | −10 | | | | | | | | | |
| 5154 | 41 | −10 | −5 | 61 | 0.04 | 0.76 | 0.09 | 0 | 0.02 | 0.19 | −5.00 | 26 | −5 | 16 | 3 | 5 | 3 | −10 | | | | | | | | | |
| 5155 | 30 | −10 | 43 | −5 | 0.16 | 2.00 | 0.16 | 0 | 0.05 | 0.88 | 6.00 | 63 | 21 | 67 | 8 | 5 | 18 | −10 | | | | | | | | | |
| 5156 | 115 | 17 | 100 | −5 | 0.16 | 9.64 | 0.09 | 0 | 0.40 | 1.07 | 170.00 | 64 | 19 | 431 | 2 | 8 | 1 | −10 | | | | | | | | | |
| 5157 | 134 | 21 | 52 | 36 | 0.29 | 10.00 | 0.13 | 0 | 0.59 | 1.84 | 202.00 | 84 | 16 | 651 | 3 | −5 | 3 | 28 | | | | | | | | | |
| 5158 | 109 | 16 | 108 | −5 | 0.17 | 6.26 | 0.09 | 2 | 0.30 | 1.22 | 168.00 | 41 | 20 | 445 | | 8 | 1 | −10 | | | | | | | | | |
| 5159 | 96 | 20 | 80 | 24 | 0.28 | 8.59 | 0.14 | 0 | 0.53 | 1.67 | 182.00 | 66 | 19 | 530 | 3 | −5 | | 29 | | | | | | | | | |
| 5160 | 179 | 12 | 50 | 21 | 0.42 | 5.99 | 0.05 | 0 | 0.26 | 0.77 | 100.00 | 32 | 35 | 384 | −1 | 10 | −1 | −10 | | | | | | | | | |
| 5161 | 152 | 11 | 25 | 30 | 0.41 | 4.82 | 0.06 | 0 | 0.24 | 1.42 | 93.00 | 52 | 14 | 331 | 4 | −5 | 2 | | | | | | | | | | |
| 5162 | 118 | 13 | 81 | −5 | 0.38 | 6.45 | 0.06 | 0 | 0.25 | 1.09 | 81.00 | 78 | 17 | 296 | 2 | 9 | −1 | −10 | | | | | | | | | |
| 5163 | 63 | 21 | 58 | −5 | 0.40 | 5.40 | 0.10 | 0 | 0.30 | 1.95 | 90.00 | 47 | 15 | 403 | 3 | −5 | 7 | 13 | | | | | | | | | |
| 5164 | 144 | 16 | 43 | −5 | 0.41 | 7.06 | 0.05 | 0 | 0.27 | 0.64 | 93.00 | 33 | 16 | 350 | 2 | 9 | −1 | −10 | | | | | | | | | |
| 5165 | 95 | 20 | 38 | 19 | 0.36 | 4.45 | 0.08 | 0 | 0.23 | 1.75 | 78.00 | 42 | 13 | 396 | 8 | −5 | 8 | 16 | | | | | | | | | |
| 5166 | 181 | 19 | 51 | 21 | 0.55 | 9.19 | 0.03 | 0 | 0.36 | 0.46 | 109.00 | 26 | 24 | 425 | 3 | 11 | 1 | −10 | | | | | | | | | |
| 5167 | 155 | 22 | 47 | −5 | 0.50 | 8.63 | 0.07 | 0 | 0.48 | 1.28 | 109.00 | 50 | 16 | 463 | 5 | −5 | 2 | 17 | | | | | | | | | |
| 5168 | 136 | 15 | 44 | −5 | 0.46 | 8.69 | 0.03 | 0 | 0.32 | 0.54 | 102.00 | 24 | 20 | 373 | 3 | 9 | 1 | −10 | | | | | | | | | |
| 5169 | 169 | 18 | 30 | 22 | 0.52 | 3.30 | 0.03 | 0 | 0.16 | 0.76 | 88.00 | 26 | 11 | 376 | 3 | −5 | 2 | 17 | | | | | | | | | |
| 5170 | 65 | −10 | 28 | −5 | 0.22 | 3.42 | 0.03 | 0 | −0.01 | 0.36 | 26.00 | 19 | 16 | 202 | 49 | −5 | −1 | −10 | | | | | | | | | |
| 5171 | 136 | 22 | 68 | 25 | 0.72 | 3.67 | 0.06 | 0 | 0.21 | 0.66 | 103.00 | 67 | 28 | 443 | 2 | 5 | 2 | 23 | | | | | | | | | |
| 5172 | 88 | 20 | 37 | 28 | 0.81 | 3.44 | 0.14 | 0 | 0.24 | 1.00 | 100.00 | 66 | 23 | 413 | −1 | −5 | 2 | 17 | | | | | | | | | |
| 5173 | 49 | −10 | 16 | −5 | 0.09 | 1.38 | 0.06 | 0 | −0.01 | 0.25 | 9.00 | 34 | 6 | 49 | 47 | −5 | 3 | −10 | | | | | | | | | |
| 5174 | 79 | 15 | 41 | 12 | 0.83 | 3.13 | 0.18 | 0 | 0.20 | 1.49 | 82.00 | 96 | 17 | 291 | 5 | −5 | 8 | 17 | | | | | | | | | |
| 5175 | 90 | 13 | 91 | 27 | 0.23 | 6.10 | 0.07 | 0 | 0.14 | 0.64 | 109.00 | 86 | 18 | 340 | 3 | −5 | −1 | −10 | | | | | | | | | |
| 5176 | 106 | 19 | 31 | 36 | 0.33 | 4.80 | 0.12 | 0 | 0.29 | 1.21 | 208.00 | 91 | 12 | 651 | 6 | −5 | 3 | 80 | | | | | | | | | |
| 5177 | 93 | −10 | 59 | −5 | 0.20 | 4.03 | 0.05 | 0 | 0.01 | 0.32 | 66.00 | 60 | 14 | 254 | 12 | 8 | −1 | −10 | | | | | | | | | |
| 5178 | 96 | 17 | 53 | −5 | 0.53 | 5.49 | 0.16 | 0 | 0.31 | 1.10 | 152.00 | 127 | 14 | 398 | 5 | | 4 | 42 | | | | | | | | | |
| 5179 | 60 | −10 | 9 | −5 | 0.06 | 1.11 | 0.08 | 0 | −0.01 | 0.37 | 5.00 | 16 | −5 | 25 | 11 | 16 | 6 | −10 | | | | | | | | | |
| 5180 | 51 | −10 | 20 | −5 | 0.15 | 1.37 | 0.10 | 0 | −0.01 | 0.51 | 7.00 | 47 | −5 | 56 | 5 | 7 | 11 | 11 | | | | | | | | | |
| 5181 | 51 | −10 | −5 | −5 | 0.03 | 0.48 | 0.04 | −0 | −0.01 | 0.10 | −5.00 | 10 | −5 | 15 | 3 | 10 | 3 | −10 | | | | | | | | | |
| 5182 | 31 | −10 | 50 | −5 | 0.13 | 1.05 | 0.07 | 0 | −0.01 | 0.44 | −5.00 | 98 | 12 | −5 | 11 | 14 | | 24 | | | | | | | | | |

APPENDIX. 1990–1991 CMD Sample Analytical Results

| Sample no. | Li ppm | Ga ppm | La ppm | Ta ppm | Ti % | Al % | Mg % | Ca % | Na % | K % | Nb ppm | Sr ppm | Y % | Zr ppm | Au ppb | Pt ppb | Pd ppb | Ge ppm | Rh ppb | Os ppb | Ir ppb | Ru ppb | Ag o/t | La ppm | Ce ppm | Pr ppm | Nd ppm |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5183 | 83 | −10 | −5 | −5 | 0.03 | 0.49 | 0.04 | 0 | −0.01 | 0.10 | −5.00 | 13 | −5 | 11 | 3 | −5 | −1 | −10 | | | | | | | | | |
| 5184 | 62 | −10 | −5 | 91 | 0.04 | 0.65 | 0.05 | −0 | −0.01 | 0.16 | −5.00 | 12 | −5 | 14 | 2 | −5 | −1 | −10 | | | | | | | | | |
| 5185 | 51 | −10 | 10 | −5 | 0.09 | 1.51 | 0.10 | −0 | −0.01 | 0.35 | −5.00 | 45 | −5 | 24 | 2 | −5 | 1 | −10 | | | | | | | | | |
| 5186 | 54 | 10 | 25 | −5 | 0.42 | 2.96 | 0.27 | 0 | 0.18 | 1.23 | 21.00 | 176 | 13 | 137 | 12 | 7 | 13 | −10 | | | | | | | | | |
| 5187 | 59 | −10 | 10 | −5 | 0.11 | 1.86 | 0.12 | −0 | −0.01 | 0.40 | −5.00 | 49 | 5 | 30 | 2 | −5 | 2 | −10 | | | | | | | | | |
| 5188 | 66 | 13 | 33 | −5 | 0.36 | 3.40 | 0.27 | 0 | 0.18 | 1.06 | 26.00 | 166 | 15 | 159 | 12 | −5 | 14 | 11 | | | | | | | | | |
| 5189 | 32 | −10 | −5 | 24 | 0.02 | 0.41 | 0.04 | −0 | −0.01 | 0.09 | −5.00 | 25 | −5 | 10 | −1 | −5 | −1 | −10 | | | | | | | | | |
| 5190 | 102 | −10 | 69 | −5 | 0.21 | 6.71 | 0.06 | 0 | 0.16 | 0.53 | 126.00 | 75 | 21 | 368 | 1 | −5 | −1 | −10 | | | | | | | | | |
| 5191 | 52 | 21 | 59 | 25 | 0.37 | 7.75 | 0.39 | 0 | 0.39 | 1.76 | 128.00 | 94 | 21 | 467 | 2 | −5 | 3 | 27 | | | | | | | | | |
| 5192 | 65 | 16 | 52 | −5 | 0.25 | 4.48 | 0.23 | 0 | 0.26 | 1.45 | 97.00 | 71 | 14 | 347 | 3 | 5 | 7 | 19 | | | | | | | | | |
| 5193 | 94 | −10 | −5 | −5 | 0.04 | 0.58 | 0.04 | 0 | −0.01 | 0.14 | −5.00 | 11 | −5 | 15 | 8 | −5 | −1 | −10 | | | | | | | | | |
| 5194 | 116 | 24 | 62 | −5 | 0.42 | 5.94 | 0.13 | 0 | 0.31 | 0.99 | 183.00 | 112 | 21 | 721 | 5 | 6 | 5 | 50 | | | | | | | | | |
| 5195 | 136 | 10 | 48 | −5 | 0.32 | 5.38 | 0.04 | 0 | 0.10 | 0.28 | 63.00 | 61 | 21 | 271 | 1 | −5 | 11 | −10 | | | | | | | | | |
| 5196 | 72 | 18 | 39 | 48 | 0.62 | 4.31 | 0.17 | 0 | 0.19 | 0.80 | 80.00 | 112 | 17 | 325 | 1 | 6 | 3 | 18 | | | | | | | | | |
| 5197 | 85 | 11 | 45 | −5 | 0.31 | 5.16 | 0.08 | 0 | 0.35 | 0.94 | 66.00 | 59 | 16 | 248 | 15 | 5 | −1 | −10 | | | | | | | | | |
| 5198 | 44 | 22 | 58 | −5 | 0.44 | 5.38 | 0.11 | 0 | 0.20 | 1.42 | 81.00 | 65 | 23 | 442 | 2 | −5 | 2 | 11 | | | | | | | | | |
| 5199 | 48 | 17 | 44 | −5 | 0.38 | 4.44 | 0.21 | 0 | 0.76 | 2.08 | 77.00 | 70 | 19 | 295 | 5 | 23 | 9 | 15 | | | | | | | | | |
| 5200 | 21 | 12 | 56 | 14 | 0.46 | 6.55 | 0.21 | 1 | 3.10 | 2.32 | 96.00 | 181 | 26 | 374 | −1 | 7 | −1 | −10 | | | | | | | | | |
| 5201 | 39 | −10 | 13 | −5 | 0.03 | 0.32 | −0.01 | 0 | 0.05 | 0.06 | 8.00 | 18 | −5 | 15 | 2 | −5 | −1 | −10 | | | | | | | | | |
| 5202 | 97 | 14 | 71 | −5 | 0.14 | 2.77 | 0.01 | 0 | 0.08 | 0.21 | 180.00 | 51 | 14 | 333 | 3 | −5 | −1 | −10 | | | | | | | | | |
| 5203 | 152 | 25 | 115 | −5 | 0.29 | 4.90 | 0.06 | 0 | 0.21 | 0.44 | 256.00 | 187 | 21 | 566 | 6 | 6 | 3 | −10 | | | | | | | | | |
| 5204 | 54 | −10 | 13 | −5 | 0.15 | 1.29 | 0.38 | 1 | 0.27 | 0.11 | 16.00 | 37 | 7 | 46 | 4 | 10 | 4 | −10 | | | | | | | | | |
| 5205 | 75 | 21 | 30 | 16 | 0.25 | 1.25 | −0.01 | 0 | 0.10 | 0.43 | 166.00 | 56 | 9 | 275 | 4 | 15 | 3 | −10 | | | | | | | | | |
| 5206 | 39 | −10 | 20 | −5 | 0.03 | 0.81 | −0.01 | 0 | 0.02 | 0.11 | 11.00 | 32 | −5 | 43 | 2 | 14 | 3 | −10 | | | | | | | | | |
| 5207 | 57 | 17 | 47 | −5 | 0.24 | 1.99 | 0.05 | 0 | 0.10 | 0.96 | 182.00 | 67 | 10 | 358 | 4 | 14 | 3 | −10 | | | | | | | | | |
| 5208 | 29 | −10 | 8 | −5 | 0.01 | 0.33 | −0.01 | −0 | 0.07 | 0.05 | 6.00 | 13 | −5 | 26 | 7 | 6 | 2 | −10 | | | | | | | | | |
| 5209 | 73 | 22 | 54 | −5 | 0.23 | 1.73 | 0.04 | 0 | 0.08 | 0.99 | 123.00 | 59 | 12 | 404 | 19 | 19 | 6 | −10 | | | | | | | | | |
| 5210 | 29 | −10 | 11 | 22 | 0.42 | 3.18 | 2.14 | 4 | 1.05 | 0.14 | 24.00 | 137 | 11 | 51 | 4 | 18 | 7 | −10 | | | | | | | | | |
| 5211 | 78 | 25 | 59 | 23 | 0.26 | 1.93 | 0.07 | 0 | 0.15 | 1.18 | 162.00 | 80 | 13 | 468 | 42 | 12 | 4 | −10 | | | | | | | | | |
| 5212 | 55 | 10 | 61 | 7 | 0.12 | 2.35 | −0.01 | 0 | −0.01 | 0.12 | 64.00 | 77 | 12 | 235 | 3 | 11 | 4 | −10 | | | | | | | | | |
| 5213 | 35 | −10 | 21 | 9 | 0.24 | 1.48 | 0.17 | 0 | 0.18 | 0.78 | 23.00 | 59 | 10 | 88 | 77 | 14 | 5 | −10 | | | | | | | | | |
| 5214 | 71 | −10 | 7 | −5 | 0.05 | 0.79 | −0.01 | 0 | −0.01 | 0.23 | −5.00 | 13 | −5 | 21 | 8 | 14 | 7 | −10 | | | | | | | | | |
| 5215 | 51 | −10 | 23 | −5 | 0.14 | 0.95 | −0.01 | −0 | −0.01 | 0.46 | −5.00 | 38 | 6 | 39 | 17 | 15 | 8 | −10 | | | | | | | | | |
| 5216 | 93 | 8 | −5 | 0 | 0.63 | −0.01 | 0.01 | −0 | 0.10 | −5.00 | 23.00 | −5 | 17 | 7 | 12 | 3 | −10 | | | | | | | | | | |
| 5217 | 82 | −10 | 24 | −5 | 0.11 | 1.21 | 0.04 | 0 | −0.01 | 0.41 | 9.00 | 46 | 11 | 55 | 27 | 13 | 8 | −10 | | | | | | | | | |
| 5218 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5219 | 80 | −10 | −5 | −5 | 0.02 | 0.35 | −0.01 | −0 | −0.01 | −0.01 | −5.00 | 14 | −5 | −5 | 5 | 13 | 3 | −10 | | | | | | | | | |
| 5220 | 98 | 17 | 37 | 12 | 0.27 | 1.81 | 0.21 | 0 | 0.33 | 0.78 | 44.00 | 178 | 12 | 149 | 20 | 39 | 7 | −10 | | | | | | | | | |
| 5221 | 124 | 17 | 28 | 29 | 0.40 | 3.35 | −0.01 | 0 | 0.05 | 0.42 | 50.00 | 15 | 13 | 319 | 5 | 14 | 1 | −10 | | | | | | | | | |
| 5222 | 118 | 15 | 37 | −5 | 0.44 | 2.05 | −0.01 | 0 | 0.15 | 1.65 | 73.00 | 40 | 17 | 324 | 4 | 12 | 1 | −10 | | | | | | | | | |
| 5223 | 149 | 22 | 45 | −5 | 0.52 | 3.48 | −0.01 | 0 | 0.05 | 0.42 | 73.00 | 23 | 17 | 374 | 4 | 19 | 3 | −10 | | | | | | | | | |
| 5224 | 118 | 19 | 32 | 29 | 0.58 | 2.09 | −0.01 | 0 | 0.18 | 1.21 | 94.00 | 51 | 13 | 317 | 5 | 12 | 3 | −10 | | | | | | | | | |
| 5225 | 74 | 14 | 21 | 6 | 0.52 | 1.49 | −0.01 | 0 | 0.15 | 0.91 | 79.00 | 25 | 10 | 280 | 4 | 18 | 3 | −10 | | | | | | | | | |
| 5226 | 106 | 14 | 27 | 10 | 0.49 | 2.86 | −0.01 | 0 | −0.01 | 0.22 | 64.00 | 15 | 20 | 380 | 3 | 13 | 3 | −10 | | | | | | | | | |
| 5227 | 107 | 22 | 33 | 10 | 0.53 | 2.11 | −0.01 | 0 | 0.16 | 1.60 | 89.00 | 33 | 17 | 324 | 4 | 13 | 2 | −10 | | | | | | | | | |
| 5228 | 80 | 19 | 36 | 15 | 0.67 | 2.04 | 0.03 | 0 | 0.12 | 1.00 | 90.00 | 37 | 18 | 324 | 13 | 11 | 3 | −10 | | | | | | | | | |
| 5229 | 72 | 17 | 23 | 24 | 0.45 | 1.68 | −0.01 | 0 | 0.18 | 1.56 | 87.00 | 35 | 10 | 295 | 7 | 12 | 2 | −10 | | | | | | | | | |
| 5230 | 24 | −10 | 10 | −5 | 0.03 | 0.52 | −0.01 | −0 | −0.01 | −0.01 | 7.00 | 32 | −5 | 22 | 5 | 19 | 3 | −10 | | | | | | | | | |
| 5231 | 79 | 12 | 28 | 16 | 0.40 | 2.14 | 0.02 | 0 | 0.15 | 1.09 | 131.00 | 59 | 9 | 339 | 133 | 12 | 6 | −10 | | | | | | | | | |
| 5232 | 73 | −10 | 11 | −5 | 0.09 | 1.45 | −0.01 | 0 | −0.01 | 0.36 | −5.00 | 37 | −5 | 34 | 8 | 23 | 5 | −10 | | | | | | | | | |
| 5233 | 28 | −10 | −5 | 26 | 0.05 | 0.69 | −0.01 | −0 | −0.01 | 0.12 | −5.00 | 26 | −5 | 18 | 6 | 19 | 4 | −10 | | | | | | | | | |
| 5234 | 29 | −10 | −5 | −5 | 0.03 | 0.48 | −0.01 | −0 | −0.01 | 0.04 | −5.00 | 9 | −5 | 11 | 6 | 14 | 4 | −10 | | | | | | | | | |
| 5235 | 53 | 15 | 22 | −5 | 0.42 | 1.81 | 0.14 | 0 | 0.19 | 0.86 | 49.00 | 108 | 11 | 150 | 9 | 12 | 24 | −10 | | | | | | | | | |
| 5236 | 45 | −10 | 8 | −5 | 0.03 | 0.45 | −0.01 | −0 | −0.01 | 0.06 | −5.00 | 15 | −5 | 13 | 6 | 14 | 4 | −10 | | | | | | | | | |
| 5237 | 52 | 10 | 26 | 12 | 0.50 | 2.04 | 0.20 | 0 | 0.36 | 0.85 | 61.00 | 90 | 12 | 196 | 65 | 16 | 9 | −10 | | | | | | | | | |
| 5238 | 31 | 13 | 32 | 17 | 0.19 | 1.34 | 0.04 | 0 | 0.04 | 0.54 | 21.00 | 69 | 10 | 101 | 17 | 27 | 10 | −10 | | | | | | | | | |
| 5239 | 37 | −10 | −5 | −5 | 0.03 | 0.43 | −0.01 | −0 | −0.01 | 0.04 | −5.00 | 9 | −5 | 11 | 5 | 17 | 3 | −10 | | | | | | | | | |
| 5240 | 19 | −10 | 20 | 8 | 0.07 | 0.43 | −0.01 | 0 | −0.01 | 0.19 | −5.00 | 29 | 19 | 15 | 10 | 17 | 19 | −10 | | | | | | | | | |

| Sample no. | Li ppm | Ga ppm | La ppm | Ta ppm | Ti % | Al % | Mg % | Ca % | Na % | K % | Nb ppm | Sr ppm | Y % | Zr ppm | Au ppb | Pt ppb | Pd ppb | Ge ppm | Rh ppb | Os ppb | Ir ppb | Ru ppb | Ag o/t | La ppm | Ce ppm | Pr ppm | Nd ppm |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5241 | 137 | −10 | −5 | −5 | 0.02 | 0.41 | −0.01 | 0 | 0.06 | 0.11 | −5.00 | 6 | −5 | 8 | 11 | 7 | 5 | −10 | | | | | | | | | |
| 5242 | 54 | −10 | −5 | −5 | 0.01 | 0.21 | −0.01 | 0 | 0.06 | 0.06 | −5.00 | 9 | −5 | 10 | 9 | 8 | 3 | −10 | | | | | | | | | |
| 5243 | 91 | −10 | −5 | −5 | 0.01 | 0.27 | −0.01 | 0 | 0.06 | 0.07 | −5.00 | 6 | −5 | 7 | 8 | 7 | 6 | −10 | | | | | | | | | |
| 5244 | 129 | −10 | 8 | −5 | 0.06 | 0.90 | 0.04 | −0 | 0.08 | 0.30 | −5.00 | 20 | 7 | 24 | 9 | −5 | 4 | −10 | | | | | | | | | |
| 5245 | 38 | −10 | 24 | −5 | 0.02 | 0.88 | −0.01 | 0 | 0.07 | 0.05 | 16.00 | 27 | −5 | 32 | 2 | 5 | −1 | −10 | | | | | | | | | |
| 5246 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5247 | 21 | −10 | −5 | −5 | −0.01 | 0.09 | −0.01 | 0 | 0.05 | 0.03 | −5.00 | 8 | −5 | −5 | 13 | 7 | 3 | −10 | | | | | | | | | |
| 5248 | 32 | −10 | −5 | −5 | −0.01 | 0.15 | −0.01 | −0 | 0.06 | 0.03 | −5.00 | 9 | −5 | −5 | 17 | 6 | 4 | −10 | | | | | | | | | |
| 5249 | 23 | −10 | −5 | −5 | −0.01 | 0.11 | −0.01 | 0 | 0.06 | 0.04 | −5.00 | 9 | 5 | −5 | 15 | 7 | 4 | −10 | | | | | | | | | |
| 5250 | 102 | −10 | 7 | −5 | 0.04 | 0.62 | 0.02 | −0 | 0.07 | 0.21 | −5.00 | 16 | −5 | 13 | 6 | 5 | 4 | −10 | | | | | | | | | |
| 5251 | 115 | −10 | 10 | −5 | 0.04 | 0.46 | 0.01 | −0 | 0.11 | 0.16 | −5.00 | 19 | −5 | 14 | 9 | 8 | 2 | −10 | | | | | | | | | |
| 5252 | 141 | −10 | 5 | −5 | 0.03 | 0.47 | −0.01 | −0 | 0.07 | 0.12 | −5.00 | 19 | −5 | 8 | 8 | 7 | 3 | −10 | | | | | | | | | |
| 5253 | 34 | −10 | 20 | −5 | 0.37 | 2.40 | 0.22 | 1 | 0.12 | 0.42 | 12.00 | 41 | 13 | 147 | 2 | 11 | 1 | −10 | | | | | | | | | |
| 5254 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5255 | 31 | −10 | 9 | −5 | 0.30 | 2.49 | 0.10 | 0 | 0.16 | 0.48 | 11.00 | 36 | 8 | 94 | 2 | 7 | 1 | −10 | | | | | | | | | |
| 5256 | 85 | 21 | 27 | −5 | 0.75 | 4.50 | 0.28 | 0 | 0.48 | 1.01 | 48.00 | 87 | 17 | 166 | 3 | 12 | −1 | −10 | | | | | | | | | |
| 5257 | 31 | −10 | 9 | −5 | 0.20 | 2.20 | 0.17 | 0 | 0.11 | 0.28 | 9.00 | 27 | 8 | 68 | 1 | 13 | 1 | −10 | | | | | | | | | |
| 5258 | 70 | 20 | 20 | −5 | 0.71 | 4.40 | 0.24 | 0 | 0.42 | 0.64 | 40.00 | 70 | 15 | 158 | 2 | 11 | 1 | −10 | | | | | | | | | |
| 5259 | 36 | −10 | 10 | −5 | 0.23 | 2.40 | 0.10 | 0 | 0.11 | 0.34 | 8.00 | 27 | 6 | 72 | 1 | 11 | 1 | −10 | | | | | | | | | |
| 5260 | 67 | 17 | 20 | −5 | 0.75 | 4.11 | 0.22 | 0 | 0.38 | 0.62 | 38.00 | 72 | 15 | 158 | 1 | 16 | 1 | −10 | | | | | | | | | |
| 5261 | 55 | 10 | 37 | −5 | 0.32 | 3.34 | 0.13 | 0 | 0.21 | 0.63 | 7.00 | 53 | 12 | 70 | 3 | 9 | −1 | −10 | | | | | | | | | |
| 5262 | 64 | 18 | 22 | −5 | 0.73 | 4.42 | 0.22 | 0 | 0.39 | 0.99 | 39.00 | 73 | 16 | 163 | 2 | 14 | −1 | −10 | | | | | | | | | |
| 5263 | 49 | 14 | 29 | −5 | 0.43 | 3.94 | 0.16 | 0 | 0.26 | 0.64 | 10.00 | 60 | 11 | 98 | 3 | 17 | 2 | −10 | | | | | | | | | |
| 5264 | 73 | 19 | 15 | −5 | 0.76 | 4.57 | 0.26 | 0 | 0.45 | 0.51 | 38.00 | 73 | 12 | 162 | 273 | 10 | −1 | −10 | | | | | | | | | |
| 5265 | 22 | −10 | 27 | −5 | 0.03 | 1.16 | −0.01 | 0 | −0.01 | −0.01 | 26.00 | 37 | −5 | 69 | 5 | 24 | 4 | −10 | | | | | | | | | |
| 5266 | 32 | −10 | −5 | −5 | 0.03 | 0.32 | −0.01 | −0 | 0.06 | 0.09 | 14.00 | 9 | −5 | 8 | 18 | 16 | 8 | −10 | | | | | | | | | |
| 5267 | 29 | −10 | −5 | −5 | 0.07 | 0.54 | 0.02 | −0 | 0.07 | 0.16 | 6.00 | 13 | −5 | 12 | 14 | 10 | 6 | −10 | | | | | | | | | |
| 5268 | 110 | −10 | 23 | −5 | 0.15 | 1.92 | 0.08 | −0 | 0.13 | 0.63 | 7.00 | 51 | 7 | 36 | 6 | 7 | 5 | −10 | | | | | | | | | |
| 5269 | 84 | −10 | 11 | 10 | 0.07 | 1.12 | −0.01 | −0 | −0.01 | 0.35 | −5.00 | 19 | −5 | 24 | 5 | 19 | 3 | −10 | | | | | | | | | |
| 5270 | 105 | −10 | −5 | −5 | 0.01 | 0.23 | −0.01 | 0 | 0.06 | 0.05 | −5.00 | 9 | −5 | 7 | 4 | 10 | 3 | −10 | | | | | | | | | |
| 5271 | 92 | −10 | 7 | −5 | 0.03 | 0.47 | 0.02 | 0 | 0.06 | 0.16 | −5.00 | 9 | −5 | 10 | 8 | 16 | 9 | −10 | | | | | | | | | |
| 5272 | 48 | −10 | 6 | −5 | 0.02 | 0.37 | 0.01 | 1 | 0.06 | 0.14 | −5.00 | 14 | −5 | 11 | 6 | 29 | 7 | −10 | | | | | | | | | |
| 5273 | 105 | −10 | −5 | −5 | 0.01 | 0.28 | −0.01 | 0 | 0.06 | 0.06 | −5.00 | 6 | −5 | 6 | 3 | −5 | 1 | −10 | | | | | | | | | |
| 5274 | 74 | −10 | 7 | −5 | 0.05 | 0.74 | −0.01 | 0 | −0.01 | 0.17 | −5.00 | 12 | 8 | 19 | 6 | 17 | 6 | −10 | | | | | | | | | |
| 5275 | 54 | −10 | −5 | −5 | 0.03 | 0.43 | −0.01 | −0 | −0.01 | 0.03 | −5.00 | 8 | −5 | 13 | 6 | 13 | 5 | −10 | | | | | | | | | |
| 5276 | 17 | −10 | 29 | −5 | 0.15 | 0.47 | −0.01 | 0 | −0.01 | 0.21 | 6.00 | 37 | 16 | 42 | 17 | 18 | 28 | −10 | | | | | | | | | |
| 5277 | 23 | −10 | 9 | −5 | 0.08 | 1.25 | −0.01 | −0 | −0.01 | 0.28 | −5.00 | 21 | −5 | 31 | 5 | 14 | 3 | −10 | | | | | | | | | |
| 5278 | 34 | 37 | 9 | 0 | 1.73 | 0.05 | 0.10 | 0 | 0.91 | 21.00 | 101.00 | 12 | 90 | 21 | 57 | 19 | −10 | | | | | | | | | | |
| 5279 | 25 | −10 | −5 | 15 | 0.03 | 0.54 | −0.01 | −0 | −0.01 | 0.07 | −5.00 | 8 | −5 | 18 | 6 | 13 | 4 | −10 | | | | | | | | | |
| 5280 | 19 | −10 | 25 | 12 | 0.11 | 0.97 | −0.01 | 0 | −0.01 | 0.19 | 8.00 | 37 | 9 | 44 | 14 | 16 | 16 | −10 | | | | | | | | | |
| 5281 | 14 | −10 | −5 | −5 | 0.01 | 0.23 | −0.01 | −0 | −0.01 | −0.01 | −5.00 | 7 | −5 | 7 | 6 | 12 | 3 | −10 | | | | | | | | | |
| 5282 | 20 | −10 | 27 | 45 | 0.09 | 1.29 | 0.02 | 0 | −0.01 | 0.46 | −5.00 | 47 | 12 | 34 | 9 | 14 | 17 | −10 | | | | | | | | | |
| 5283 | 40 | −10 | −5 | −5 | 0.03 | 0.42 | −0.01 | 0 | −0.01 | 0.04 | −5.00 | 13 | −5 | 13 | 5 | 12 | 5 | −10 | | | | | | | | | |
| 5284 | 77 | 19 | 30 | 48 | 0.35 | 2.62 | 0.02 | 0 | 0.18 | 1.05 | 151.00 | 46 | 10 | 446 | 5 | 12 | 3 | −10 | | | | | | | | | |
| 5285 | 13 | −10 | 20 | −5 | 0.01 | 0.53 | −0.01 | −0 | −0.01 | −0.01 | 10.00 | 32 | −5 | 34 | 4 | 17 | 2 | −10 | | | | | | | | | |
| 5286 | 20 | −10 | 32 | −5 | 0.03 | 1.05 | −0.01 | −0 | −0.01 | −0.01 | 25.00 | 26 | −5 | 72 | 4 | 12 | 3 | −10 | | | | | | | | | |
| 5287 | 16 | −10 | 12 | −5 | 0.01 | 0.35 | −0.01 | 0 | −0.01 | −0.01 | 7.00 | 14 | −5 | 23 | 7 | 16 | 4 | −10 | | | | | | | | | |
| 5288 | 53 | 14 | 27 | 25 | 0.89 | 2.06 | −0.01 | 0 | 0.10 | 0.42 | 98.00 | 56 | 9 | 118 | 5 | 8 | 5 | −10 | | | | | | | | | |
| 5289 | 59 | −10 | 21 | 22 | 0.11 | 1.56 | 0.35 | 1 | 0.08 | 0.10 | 20.00 | 59 | −5 | 46 | 4 | 16 | 4 | −10 | | | | | | | | | |
| 5290 | 70 | 30 | 16 | 23 | 0.30 | 3.14 | −0.01 | 0 | 0.19 | 1.46 | 279.00 | 49 | 7 | 587 | 3 | 11 | 2 | −10 | | | | | | | | | |
| 5291 | 42 | 13 | 24 | −5 | 0.42 | 3.14 | 0.20 | 0 | 0.21 | 0.70 | 10.00 | 51 | 10 | 89 | 1 | 10 | 1 | −10 | | | | | | | | | |
| 5292 | 57 | 12 | 27 | −5 | 0.46 | 4.31 | 0.33 | 0 | 0.36 | 0.71 | 13.00 | 63 | 18 | 104 | 2 | 12 | −1 | −10 | | | | | | | | | |
| 5293 | 36 | −10 | 19 | −5 | 0.37 | 2.45 | 0.18 | 0 | 0.15 | 0.63 | 8.00 | 52 | 7 | 79 | 6 | 12 | −1 | −10 | | | | | | | | | |
| 5294 | 21 | 27 | −5 | −5 | 0.06 | 1.33 | 0.03 | 0 | 0.05 | 0.14 | −5.00 | 10 | −5 | 15 | 705 | 20 | 4 | −10 | | | | | 20.29 | | | | |
| 5295 | 57 | 16 | 33 | −5 | 0.48 | 4.36 | 0.52 | 0 | 0.35 | 0.70 | 12.00 | 75 | 20 | 116 | 5 | 9 | −1 | −10 | | | | | | | | | |
| 5296 | 58 | 14 | 23 | −5 | 0.40 | 3.72 | 0.31 | 0 | 0.28 | 0.63 | 11.00 | 58 | 16 | 95 | 6 | 8 | 1 | −10 | | | | | | | | | |
| 5297 | 39 | 12 | 22 | −5 | 0.41 | 3.22 | 0.10 | 0 | 0.20 | 0.53 | 10.00 | 52 | 9 | 88 | 3 | 7 | 2 | −10 | | | | | | | | | |
| 5298 | 35 | −10 | 23 | −5 | 0.39 | 3.15 | 0.12 | 0 | 0.22 | 0.49 | 10.00 | 56 | 9 | 100 | 2 | 8 | 1 | −10 | | | | | | | | | |

| Sample no. | Li ppm | Ga ppm | La ppm | Ta ppm | Ti % | Al % | Mg % | Ca % | Na % | K % | Nb ppm | Sr ppm | Y % | Zr ppm | Au ppb | Pt ppb | Pd ppb | Ge ppm | Rh ppb | Os ppb | Ir ppb | Ru ppb | Ag o/t | La ppm | Ce ppm | Pr ppm | Nd ppm |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5299 | 36 | 10 | 28 | −5 | 0.30 | 3.43 | 0.13 | 0 | 0.22 | 0.55 | 6.00 | 50 | 9 | 69 | 2 | 11 | 1 | −10 | | | | | | | | | |
| 5300 | 89 | 21 | 15 | −5 | 0.63 | 4.70 | 0.26 | 0 | 0.34 | 0.60 | 36.00 | 68 | 13 | 139 | 70 | 9 | 2 | −10 | | | | | | | | | |
| 5301 | 47 | 16 | 48 | 19 | 0.47 | 4.62 | 0.18 | 1 | 0.29 | 2.00 | 76.00 | 54 | 23 | 347 | 17 | 33 | 18 | 13 | | | | | | | | | |
| 5302 | 63 | 20 | 46 | 26 | 0.73 | 3.74 | 0.13 | 0 | 0.24 | 0.91 | 98.00 | 54 | 22 | 354 | 5 | 16 | 8 | 18 | | | | | | | | | |
| 5303 | 63 | 15 | 53 | 15 | 0.65 | 4.29 | 0.14 | 0 | 0.39 | 0.81 | 94.00 | 54 | 23 | 345 | 5 | 14 | 6 | 12 | | | | | | | | | |
| 5304 | 82 | 17 | 63 | 30 | 0.14 | 8.27 | 0.24 | 0 | 0.39 | 1.35 | 104.00 | 73 | 15 | 436 | | −1 | −1 | −5 | | | | | | | | | |
| 5305 | 51 | 16 | 41 | 76 | 0.27 | 4.47 | 0.28 | 0 | 0.24 | 1.49 | 86.00 | 74 | 14 | 298 | 5 | 7 | | −10 | | | | | | | | | |
| 5306 | 20 | −10 | 22 | 22 | 0.14 | 2.80 | 0.16 | 0 | 0.12 | 1.03 | 35.00 | 39 | 9 | 107 | 13 | 20 | | −10 | | | | | | | | | |
| 5307 | 22 | −10 | 32 | −5 | 0.19 | 2.71 | 0.19 | 0 | 0.13 | 1.30 | 44.00 | 46 | 13 | 148 | 12 | 21 | | −10 | | | | | | | | | |
| 5308 | 65 | −10 | 63 | −5 | 0.19 | 6.28 | 0.06 | 0 | 0.14 | 0.43 | 93.00 | 71 | 16 | 302 | −1 | −5 | −1 | −10 | | | | | | | | | |
| 5309 | 91 | 25 | 60 | 30 | 0.37 | 9.44 | 0.12 | 0 | 0.44 | 1.75 | 215.00 | 125 | 22 | 725 | 4 | 8 | 4 | 47 | | | | | | | | | |
| 5310 | 101 | 14 | 77 | 51 | 0.28 | 7.33 | 0.07 | 0 | 0.27 | 0.73 | 140.00 | 61 | 19 | 375 | −1 | −5 | −1 | −10 | | | | | | | | | |
| 5311 | 91 | 30 | 76 | 44 | 0.39 | 10.00 | 0.14 | 0 | 0.50 | 1.71 | 215.00 | 95 | 24 | 819 | 6 | −5 | 5 | 46 | | | | | | | | | |
| 5312 | 50 | −10 | 38 | 16 | 0.12 | 1.22 | 0.06 | 0 | −0.01 | 0.36 | 19.00 | 41 | 6 | 65 | 8 | −5 | 9 | 21 | | | | | | | | | |
| 5313 | 89 | −10 | 56 | 90 | 0.22 | 4.20 | 0.08 | 0 | 0.05 | 0.47 | 67.00 | 74 | 10 | 164 | 1 | −5 | −1 | −10 | | | | | | | | | |
| 5314 | 42 | −10 | 58 | −5 | 0.30 | 2.66 | 0.13 | 0 | 0.09 | 1.04 | 61.00 | 89 | 10 | 135 | 7 | −5 | 12 | 27 | | | | | | | | | |
| 5315 | 28 | −10 | 46 | 20 | 0.24 | 2.59 | 0.23 | 0 | 0.09 | 0.57 | 53.00 | 59 | 13 | 156 | 7 | 15 | 16 | −10 | | | | | | | | | |
| 5316 | 21 | −10 | 30 | −5 | 0.13 | 2.40 | 0.24 | 0 | 0.14 | 0.60 | 15.00 | 47 | 14 | 56 | 11 | 25 | 19 | −10 | | | | | | | | | |
| 5317 | 21 | −10 | 32 | 10 | 0.16 | 2.23 | 0.21 | 0 | 0.16 | 0.70 | 31.00 | 45 | 13 | 98 | 9 | −5 | 11 | −10 | | | | | | | | | |
| 5318 | 133 | −10 | 39 | −5 | 0.12 | 3.09 | 0.04 | −0 | −0.01 | 0.25 | 28.00 | 31 | 15 | 175 | 30 | −5 | −1 | −10 | | | | | | | | | |
| 5319 | 125 | 16 | 15 | 477 | 0.24 | 2.20 | 0.02 | 0 | 0.25 | 0.37 | 66.00 | 18 | 6 | 140 | 13 | −5 | 2 | −10 | | | | | | | | | |
| 5320 | 106 | −10 | 78 | −5 | 0.14 | 4.28 | 0.04 | −0 | 0.03 | 0.26 | 62.00 | 56 | 23 | 280 | 17 | −5 | −1 | −10 | | | | | | | | | |
| 5321 | 104 | −10 | 22 | 52 | 0.47 | 4.26 | 0.08 | 0 | 0.24 | 0.88 | 190.00 | 70 | 16 | 609 | 8 | −5 | 3 | 36 | | | | | | | | | |
| 5322 | 82 | −10 | −5 | −5 | 0.02 | 0.40 | 0.03 | −0 | −0.01 | 0.08 | −5.00 | 10 | −5 | 12 | 4 | 6 | 3 | −10 | | | | | | | | | |
| 5323 | 40 | −10 | 23 | 31 | 0.27 | 2.76 | 0.24 | 0 | 0.21 | 1.16 | 30.00 | 96 | 10 | 111 | 14 | 6 | 11 | 16 | | | | | | | | | |
| 5324 | 88 | −10 | 9 | 6 | 0.11 | 1.76 | 0.14 | 0 | 0.38 | 0.56 | 6.00 | 44 | −5 | 42 | 3 | 6 | 1 | −10 | | | | | | | | | |
| 5325 | 35 | −10 | 14 | −5 | 0.28 | 2.21 | 0.17 | 0 | 0.13 | 1.96 | 16.00 | 48 | 11 | 97 | 22 | 7 | 15 | 144 | | | | | | | | | |
| 5326 | 34 | −10 | −5 | 90 | −0.01 | 0.12 | −0.01 | 0 | 0.03 | 0.03 | −5.00 | 6 | −5 | 5 | 15 | −5 | 2 | −10 | | | | | | | | | |
| 5327 | 64 | 15 | 20 | 5 | 0.31 | 3.33 | 0.24 | 0 | 0.21 | 1.78 | 51.00 | 116 | 12 | 188 | 42 | 6 | 8 | 78 | | | | | | | | | |
| 5328 | 22 | −10 | −5 | −5 | −0.01 | 0.08 | −0.01 | −0 | 0.03 | 0.03 | −5.00 | 1 | −5 | −5 | 12 | −5 | 4 | −10 | | | | | | | | | |
| 5329 | 66 | 15 | 26 | −5 | 0.33 | 4.47 | 0.30 | 0 | 0.34 | 1.83 | 56.00 | 141 | 13 | 201 | 6 | 8 | 6 | 11 | | | | | | | | | |
| 5330 | 37 | −10 | 26 | −5 | 0.23 | 3.45 | 0.33 | 0 | 0.34 | 1.05 | 27.00 | 98 | 24 | 126 | 9 | 6 | 14 | −10 | | | | | | | | | |
| 5331 | 50 | 18 | 30 | 29 | 0.30 | 1.63 | 0.17 | 0 | 0.15 | 0.69 | 40.00 | 62 | 20 | 123 | 9 | 10 | 7 | −10 | | | | | | | | | |
| 5332 | 132 | −10 | 101 | −5 | 0.13 | 1.58 | −0.01 | −0 | −0.01 | 0.32 | 96.00 | 179 | 9 | 221 | 6 | 17 | 2 | −10 | | | | | | | | | |
| 5333 | 216 | 16 | 45 | −5 | 0.31 | 1.57 | −0.01 | −0 | 0.18 | 0.89 | 151.00 | 109 | 7 | 334 | 12 | 19 | 10 | −10 | | | | | | | | | |
| 5334 | 67 | −10 | −5 | 12 | 0.02 | 0.33 | −0.01 | 0 | −0.01 | −0.01 | −5.00 | 15 | −5 | 11 | 7 | 14 | 4 | −10 | | | | | | | | | |
| 5335 | 60 | −10 | 18 | −5 | 0.09 | 0.73 | −0.01 | 0 | −0.01 | 0.23 | 9.00 | 37 | −5 | 33 | 7 | 13 | 5 | −10 | | | | | | | | | |
| 5336 | 92 | −10 | 6 | −5 | 0.03 | 0.50 | −0.01 | −0 | −0.01 | 0.07 | −5.00 | 14 | −5 | 18 | 6 | 14 | 5 | −10 | | | | | | | | | |
| 5337 | 62 | −10 | 16 | −5 | 0.11 | 0.47 | −0.01 | 0 | −0.01 | 0.23 | 7.00 | 74 | 5 | 42 | 11 | 16 | 6 | −10 | | | | | | | | | |
| 5338 | 103 | −10 | 12 | −5 | 0.04 | 0.59 | −0.01 | −0 | −0.01 | 0.12 | −5.00 | 20 | −5 | 17 | 5 | 18 | 5 | −10 | | | | | | | | | |
| 5339 | 70 | −10 | 31 | −5 | 0.28 | 1.61 | 0.07 | 0 | 0.10 | 0.76 | 40.00 | 56 | 13 | 119 | 16 | 33 | 11 | −10 | | | | | | | | | |
| 5340 | | | 62 | −5 | 0.47 | 7.17 | 0.24 | 0 | 3.03 | 3.15 | 93.00 | 116 | 28 | 382 | 1 | 6 | −1 | −10 | | | | | | | | | |
| 5341 | 37 | −10 | −5 | −5 | 0.02 | 0.29 | −0.01 | −0 | −0.01 | −0.01 | −5.00 | 9 | −5 | 7 | 5 | 19 | 4 | −10 | | | | | | | | | |
| 5342 | 28 | −10 | 23 | −5 | 0.18 | 1.39 | 0.21 | 0 | 0.15 | 0.63 | 7.00 | 59 | 10 | 59 | 10 | 26 | 9 | −10 | | | | | | | | | |
| 5343 | 101 | −10 | 73 | 18 | 0.11 | 1.49 | −0.01 | −0 | −0.01 | 0.25 | 110.00 | 87 | 13 | 314 | 5 | 15 | 4 | −10 | | | | | | | | | |
| 5344 | 485 | 22 | 44 | −5 | 0.29 | 2.58 | −0.01 | 0 | 0.24 | 0.60 | 171.00 | 101 | 14 | 481 | 12 | 11 | 2 | −10 | | | | | | | | | |
| 5345 | 36 | −10 | 23 | −5 | 0.02 | 0.90 | −0.01 | 0 | 0.12 | 0.06 | 18.00 | 27 | −5 | 36 | 5 | −5 | 1 | −10 | | | | | | | | | |
| 5346 | 36 | 13 | 35 | 14 | 0.43 | 2.02 | 0.02 | 0 | 2.27 | 1.21 | 88.00 | 43 | 16 | 316 | 5 | 15 | 4 | −10 | | | | | | | | | |
| 5347 | 55 | −10 | −5 | −5 | 0.02 | 0.42 | −0.01 | 0 | −0.01 | 0.03 | −5.00 | 18 | −5 | 13 | 6 | 22 | 5 | −10 | | | | | | | | | |
| 5348 | 59 | −10 | 9 | 8 | 0.30 | 1.95 | 0.30 | 0 | 0.23 | 1.10 | 23.00 | 77 | 9 | 96 | 11 | 36 | 9 | −10 | | | | | | | | | |
| 5349 | 53 | −10 | 5 | −5 | 0.04 | 0.51 | −0.01 | −0 | −0.01 | 0.06 | −5.00 | 14 | −5 | 22 | 6 | 16 | 5 | −10 | | | | | | | | | |
| 5350 | 34 | 28 | 33 | 0 | 1.42 | 0.15 | 0.02 | 0 | 0.77 | 15.00 | 124.00 | 13 | 104 | 12 | 15 | 11 | −10 | | | | | | | | | | |
| 5351 | 27 | −10 | −5 | −5 | 0.01 | 0.19 | −0.01 | 0 | −0.01 | −0.01 | −5.00 | 6 | −5 | 8 | 4 | 17 | 6 | −10 | | | | | | | | | |
| 5352 | 28 | −10 | 20 | 7 | 0.07 | 0.82 | −0.01 | 0 | −0.01 | 0.25 | −5.00 | 81 | 10 | 34 | 13 | 14 | 21 | −10 | | | | | | | | | |
| 5353 | 14 | −10 | −5 | −5 | −0.01 | 0.14 | −0.01 | −0 | −0.01 | −0.01 | −5.00 | 11 | −5 | −5 | 4 | 17 | 4 | −10 | | | | | | | | | |
| 5354 | 26 | 10 | 49 | −5 | 0.10 | 1.45 | 0.03 | 0 | −0.01 | 0.29 | −5.00 | 154 | 31 | 48 | 12 | 16 | 20 | −10 | | | | | | | | | |
| 5355 | 41 | −10 | 20 | 19 | 0.13 | 1.61 | 0.26 | 0 | 0.11 | 0.09 | 35.00 | 44 | 8 | 144 | 5 | 18 | 6 | −10 | | | | | | | | | |
| 5356 | 32 | −10 | 45 | 11 | 0.17 | 2.29 | 0.04 | 0 | 0.06 | 0.40 | 81.00 | 138 | 12 | 191 | 9 | 21 | 10 | −10 | | | | | | | | | |

| Sample no. | Li ppm | Ga ppm | La ppm | Ta ppm | Ti % | Al % | Mg % | Ca % | Na % | K % | Nb ppm | Sr ppm | Y % | Zr ppm | Au ppb | Pt ppb | Pd ppb | Ge ppm | Rh ppb | Os ppb | Ir ppb | Ru ppb | Ag o/t | La ppm | Ce ppm | Pr ppm | Nd ppm |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5357 | 111 | −10 | 6 | 17 | 0.05 | 0.57 | −0.01 | 0 | −0.01 | 0.13 | −5.00 | 13 | −5 | 18 | 7 | 17 | 6 | −10 | | | | | | | | | |
| 5358 | 153 | −10 | 9 | −5 | 0.05 | 0.70 | 0.02 | −0 | 0.08 | 0.22 | −5.00 | 16 | −5 | 10 | 8 | −5 | 3 | −10 | | | | | | | | | |
| 5359 | 67 | −10 | −5 | −5 | 0.03 | 0.36 | −0.01 | 0 | −0.01 | 0.02 | −5.00 | 10 | −5 | 17 | 6 | 18 | 4 | −10 | | | | | | | | | |
| 5360 | 30 | −10 | 23 | −5 | 0.14 | 1.77 | 0.06 | 0 | 0.03 | 0.39 | 14.00 | 38 | 9 | 75 | 15 | 17 | 11 | −10 | | | | | | | | | |
| 5361 | 99 | 23 | 59 | 10 | 0.38 | 4.29 | −0.01 | 0 | 0.23 | 0.97 | 73.00 | 51 | 19 | 380 | 4 | 13 | 1 | −10 | | | | | | | | | |
| 5362 | 92 | 20 | 54 | 36 | 0.38 | 4.39 | 0.04 | 0 | 0.19 | 0.90 | 75.00 | 44 | 20 | 328 | 7 | 18 | 4 | −10 | | | | | | | | | |
| 5363 | 93 | 12 | 15 | −5 | 0.39 | 2.15 | −0.01 | 0 | −0.01 | −0.01 | 68.00 | 9 | 10 | 277 | 5 | 15 | 4 | −10 | | | | | | | | | |
| 5364 | 117 | −10 | 104 | −5 | 0.46 | 10.00 | 0.12 | 0 | 0.82 | 2.62 | 107.00 | 82 | 32 | 411 | 6 | −5 | 2 | −10 | | | | | | | | | |
| 5365 | 33 | −10 | −5 | 8 | −0.01 | 0.21 | −0.01 | 0 | −0.01 | −0.01 | −5.00 | 5 | −5 | 7 | 14 | 17 | 5 | −10 | | | | | | | | | |
| 5366 | 60 | −10 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5367 | 58 | −10 | 20 | 6 | 0.36 | 1.80 | 0.08 | 0 | 0.03 | 0.40 | 59.00 | 30 | 14 | 189 | 5 | 21 | 4 | −10 | | | | | | | | | |
| 5368 | 48 | −10 | 7 | −5 | 0.09 | 1.18 | 0.01 | 0 | −0.01 | 0.39 | −5.00 | 26 | −5 | 29 | 5 | 21 | 4 | −10 | | | | | | | | | |
| 5369 | 35 | 14 | 25 | 14 | 0.43 | 2.94 | 0.15 | 0 | 0.06 | 0.84 | 31.00 | 85 | 12 | 108 | 6 | 11 | 5 | −10 | | | | | | | | | |
| 5370 | 33 | −10 | 63 | −5 | 0.07 | 1.40 | −0.01 | 0 | −0.01 | 0.11 | 53.00 | 80 | 7 | 167 | 4 | 18 | 3 | −10 | | | | | | | | | |
| 5371 | 86 | 19 | 93 | 21 | 0.52 | 6.18 | −0.01 | 0 | 0.27 | 0.61 | 288.00 | 159 | 26 | 681 | 8 | 19 | 3 | −10 | | | | | | | | | |
| 5372 | 52 | 15 | 42 | −5 | 0.15 | 1.64 | −0.01 | 0 | −0.01 | 0.05 | 100.00 | 47 | 12 | 410 | 5 | 17 | 5 | −10 | | | | | | | | | |
| 5373 | 60 | 27 | 40 | 23 | 0.87 | 3.21 | 0.18 | 1 | 0.08 | 0.29 | 134.00 | 59 | 15 | 251 | 12 | 42 | 12 | −10 | | | | | | | | | |
| 5374 | 56 | 10 | 28 | −5 | 0.14 | 1.41 | −0.01 | −0 | −0.01 | 0.03 | 132.00 | 32 | 9 | 428 | 5 | 14 | 4 | −10 | | | | | | | | | |
| 5375 | 85 | −10 | −5 | −5 | 0.02 | 0.38 | −0.01 | −0 | −0.01 | −0.01 | −5.00 | 10 | −5 | 15 | 6 | 18 | 5 | −10 | | | | | | | | | |
| 5376 | 40 | 23 | 17 | 15 | 0.29 | 4.23 | 0.27 | 0 | 0.13 | 0.89 | 27.00 | 191 | 12 | 89 | 7 | 14 | 6 | −10 | | | | | | | | | |
| 5377 | 25 | −10 | 6 | 19 | 0.05 | 0.70 | −0.01 | −0 | −0.01 | 0.18 | 7.00 | 13 | −5 | 25 | 7 | 20 | 4 | −10 | | | | | | | | | |
| 5378 | 25 | −10 | 5 | −5 | 0.04 | 0.80 | −0.01 | −0 | −0.01 | 0.15 | −5.00 | 13 | −5 | 18 | 6 | 17 | 5 | −10 | | | | | | | | | |
| 5379 | 28 | −10 | −5 | −5 | 0.04 | 0.58 | −0.01 | −0 | −0.01 | 0.08 | −5.00 | 15 | −5 | 17 | 8 | 20 | 6 | −10 | | | | | | | | | |
| 5380 | 79 | 23 | 26 | 30 | 0.74 | 2.40 | 0.10 | 0 | 0.17 | 0.69 | 45.00 | 163 | 18 | 203 | 39 | 20 | 17 | −10 | | | | | | | | | |
| 5381 | 28 | −10 | 12 | 17 | 0.11 | 1.27 | −0.01 | 0 | −0.01 | 0.39 | 8.00 | 87 | 6 | 39 | 7 | 15 | 7 | −10 | | | | | | | | | |
| 5382 | 44 | −10 | 27 | 16 | 0.56 | 2.25 | 0.08 | 0 | 0.13 | 0.63 | 35.00 | 128 | 14 | 147 | 20 | 19 | 11 | −10 | | | | | | | | | |
| 5383 | 26 | −10 | 10 | −5 | 0.09 | 1.12 | −0.01 | 0 | −0.01 | 0.29 | −5.00 | 56 | −5 | 32 | 6 | 15 | 3 | −10 | | | | | | | | | |
| 5384 | 51 | 11 | 24 | 5 | 0.54 | 2.73 | 0.12 | 0 | 0.12 | 0.73 | 51.00 | 150 | 11 | 142 | 9 | 16 | 8 | −10 | | | | | | | | | |
| 5385 | 24 | −10 | 27 | −5 | 0.11 | 1.46 | −0.01 | 0 | −0.01 | 0.33 | −5.00 | 70 | 11 | 34 | 10 | 17 | 16 | −10 | | | | | | | | | |
| 5386 | 19 | −10 | −5 | −5 | 0.02 | 0.23 | −0.01 | 0 | −0.01 | −0.01 | −5.00 | 6 | −5 | 11 | 5 | 17 | 7 | −10 | | | | | | | | | |
| 5387 | 20 | −10 | 22 | −5 | 0.16 | 1.07 | −0.01 | 0 | −0.01 | 0.41 | −5.00 | 43 | 8 | 56 | 10 | 20 | 15 | −10 | | | | | | | | | |
| 5388 | 28 | −10 | 10 | −5 | 0.08 | 1.02 | 0.05 | 0 | −0.01 | 0.19 | 6.00 | 68 | −5 | 36 | 6 | 19 | 6 | −10 | | | | | | | | | |
| 5389 | 16 | −10 | 25 | −5 | 0.10 | 1.34 | 0.02 | 0 | −0.01 | 0.26 | −5.00 | 44 | 10 | 42 | 12 | 19 | 20 | −10 | | | | | | | | | |
| 5390 | 21 | 12 | 28 | −5 | 0.09 | 1.77 | 0.10 | 0 | −0.01 | 0.42 | −5.00 | 59 | 15 | 31 | 12 | 17 | 18 | −10 | | | | | | | | | |
| 5391 | 68 | −10 | 14 | 6 | 0.09 | 1.35 | −0.01 | −0 | −0.01 | 0.37 | −5.00 | 46 | −5 | 30 | 6 | 12 | 7 | −10 | | | | | | | | | |
| 5392 | 36 | −10 | 8 | | | | | | | | | | | | | | | | | | | | | | | | |
| 5393 | 49 | −10 | 5 | | | | | | | | | | | | | | | | | | | | | | | | |
| 5394 | 85 | −10 | 10 | | | | | | | | | | | | | | | | | | | | | | | | |
| 5395 | 95 | −10 | 16 | | | | | | | | | | | | | | | | | | | | | | | | |
| 5396 | 38 | −10 | 18 | | | | | | | | | | | | | | | | | | | | | | | | |
| 5397 | 95 | −10 | 23 | | | | | | | | | | | | | | | | | | | | | | | | |
| 5398 | 112 | −10 | 6 | | | | | | | | | | | | | | | | | | | | | | | | |
| 5399 | 99 | −10 | 13 | | | | | | | | | | | | | | | | | | | | | | | | |
| 5400 | 117 | −10 | −5 | | | | | | | | | | | | | | | | | | | | | | | | |
| 5401 | 40 | −10 | 21 | −5 | 0.30 | 3.51 | 0.15 | 0 | 0.24 | 0.59 | 7.00 | 40 | 9 | 76 | 3 | 10 | 1 | −10 | | | | | | | | | |
| 5402 | 85 | 23 | 11 | −5 | 0.60 | 4.51 | 0.23 | 0 | 0.33 | 0.54 | 32.00 | 62 | 9 | 135 | 55 | 9 | −1 | −10 | | | | | | | | | |
| 5403 | 42 | −10 | 14 | −5 | 0.27 | 3.02 | 0.10 | 0 | 0.20 | 0.58 | 7.00 | 30 | 6 | 68 | 1 | 12 | 2 | −10 | | | | | | | | | |
| 5404 | 62 | 19 | 13 | −5 | 0.58 | 4.04 | 0.20 | 0 | 0.26 | 0.39 | 28.00 | 56 | 10 | 137 | 743 | 34 | 4 | −10 | | | | | | | | | |
| 5405 | 41 | −10 | 14 | −5 | 0.32 | 3.27 | 0.12 | 0 | 0.24 | 0.59 | 7.00 | 33 | 7 | 77 | −1 | 7 | −1 | −10 | | | | | | | | | |
| 5406 | 68 | 21 | 16 | −5 | 0.67 | 4.27 | 0.23 | 0 | 0.29 | 0.63 | 32.00 | 60 | 12 | 153 | 178 | 29 | 4 | −10 | | | | | | | | | |
| 5407 | 50 | 11 | 13 | −5 | 0.22 | 2.39 | 0.09 | 0 | 0.14 | 0.41 | −5.00 | 26 | −5 | 53 | 4 | 10 | 2 | −10 | | | | | | | | | |
| 5408 | 76 | 21 | 11 | −5 | 0.57 | 4.42 | 0.23 | 0 | 0.38 | 0.70 | 34.00 | 56 | 12 | 142 | 11 | 18 | 4 | −10 | | | | | | | | | |
| 5409 | 46 | −10 | 16 | −5 | 0.29 | 2.98 | 0.13 | 0 | 0.21 | 0.42 | 7.00 | 32 | 7 | 72 | 1 | 6 | 2 | −10 | | | | | | | | | |
| 5410 | 81 | 13 | 10 | −5 | 0.71 | 4.09 | 0.23 | 0 | 0.32 | 0.60 | 33.00 | 56 | 11 | 145 | −1 | 8 | −1 | −10 | | | | | | | | | |
| 5411 | 38 | 12 | 16 | −5 | 0.31 | 2.54 | 0.09 | 0 | 0.15 | 0.52 | 8.00 | 35 | 7 | 71 | 6 | 10 | 1 | −10 | | | | | | | | | |
| 5412 | 50 | 15 | 14 | −5 | 0.71 | 3.41 | 0.22 | 0 | 0.31 | 0.65 | 30.00 | 60 | 12 | 163 | 3 | 5 | −1 | −10 | | | | | | | | | |
| 5413 | 31 | 10 | 21 | −5 | 0.37 | 2.97 | 0.09 | 0 | 0.19 | 0.51 | 9.00 | 46 | 8 | 101 | −1 | 11 | −1 | −10 | | | | | | | | | |
| 5414 | 42 | −10 | 16 | −5 | 0.31 | 3.14 | 0.09 | 0 | 0.22 | 0.79 | 8.00 | 40 | 9 | 78 | 2 | 12 | 1 | −10 | | | | | | | | | |

| Sample no. | Li ppm | Ga ppm | La ppm | Ta ppm | Ti % | Al % | Mg % | Ca % | Na % | K % | Nb ppm | Sr ppm | Y % | Zr ppm | Au ppb | Pt ppb | Pd ppb | Ge ppm | Rh ppb | Os ppb | Ir ppb | Ru ppb | Ag o/t | La ppm | Ce ppm | Pr ppm | Nd ppm |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5415 | 78 | 16 | 11 | −5 | 0.80 | 4.05 | 0.20 | 0 | 0.31 | 0.77 | 30.00 | 62 | 12 | 173 | 10 | 6 | −1 | −10 | | | | | | | | | |
| 5416 | 51 | 11 | 15 | −5 | 0.27 | 2.82 | 0.13 | 0 | 0.18 | 0.52 | 6.00 | 32 | 6 | 54 | 1 | 13 | 1 | −10 | | | | | | | | | |
| 5417 | 58 | 12 | 25 | −5 | 0.44 | 4.65 | 0.19 | 0 | 0.37 | 0.85 | 12.00 | 51 | 13 | 110 | 4 | 13 | 2 | −10 | | | | | | | | | |
| 5418 | 41 | 12 | 31 | −5 | 0.44 | 3.73 | 0.21 | 0 | 0.27 | 0.64 | 12.00 | 55 | 11 | 118 | 2 | 7 | 2 | −10 | | | | | | | | | |
| 5419 | 49 | −10 | 20 | −5 | 0.31 | 3.36 | 0.15 | 0 | 0.23 | 0.55 | 8.00 | 36 | 11 | 84 | 1 | 10 | 1 | −10 | | | | | | | | | |
| 5420 | 49 | −10 | 19 | −5 | 0.32 | 3.73 | 0.26 | 0 | 0.30 | 0.58 | 9.00 | 38 | 13 | 86 | −1 | 9 | 2 | −10 | | | | | | | | | |
| 5421 | 42 | −10 | 10 | −5 | 0.20 | 2.24 | 0.20 | 0 | 0.14 | 0.51 | −5.00 | 25 | 6 | 43 | 23 | 8 | 1 | −10 | | | | | | | | | |
| 5422 | 50 | −10 | 14 | −5 | 0.19 | 1.97 | 0.07 | 0 | 0.10 | 0.45 | −5.00 | 27 | −5 | 45 | 22 | 13 | 1 | −10 | | | | | | | | | |
| 5423 | 48 | −10 | 16 | −5 | 0.22 | 2.54 | 0.11 | 0 | 0.19 | 0.59 | 6.00 | 36 | 15 | 55 | 11 | 12 | 3 | −10 | | | | | | | | | |
| 5424 | 46 | −10 | 22 | −5 | 0.36 | 3.36 | 0.14 | 0 | 0.26 | 0.56 | 11.00 | 47 | 10 | 89 | 2 | 13 | 2 | −10 | | | | | | | | | |
| 5425 | 62 | 11 | −5 | −5 | 0.07 | 0.81 | 0.02 | −0 | 0.04 | 0.17 | −5.00 | 11 | −5 | 10 | 84 | 11 | 2 | −10 | | | | | | | | | |
| 5426 | 72 | 25 | 12 | −5 | 0.38 | 1.40 | 0.10 | 0 | 0.14 | 1.20 | 6.00 | 47 | −5 | −5 | 59 | 13 | 2 | −10 | | | | | 3.48 | | | | |
| 5427 | 4 | 58 | −5 | −5 | 0.01 | 0.16 | −0.01 | −0 | 0.03 | 0.04 | −5.00 | 3 | −5 | −5 | 216 | 9 | 3 | −10 | | | | | 13.13 | | | | |
| 5428 | 71 | 20 | 7 | −5 | 0.34 | 1.65 | 0.09 | 0 | 0.11 | 1.02 | 6.00 | 32 | −5 | 16 | 131 | 14 | 4 | −10 | | | | | 3.54 | | | | |
| 5429 | 91 | 15 | 14 | −5 | 0.42 | 3.18 | 0.15 | 0 | 0.25 | 1.01 | 9.00 | 45 | 8 | 67 | 49 | 9 | 2 | −10 | | | | | 1.12 | | | | |
| 5430 | 69 | 13 | 9 | −5 | 0.32 | 2.21 | 0.13 | 0 | 0.14 | 0.89 | −5.00 | 31 | 6 | 49 | 98 | 14 | 2 | −10 | | | | | 1.89 | | | | |
| 5431 | 66 | 13 | 26 | −5 | 0.51 | 4.81 | 0.46 | 0 | 0.39 | 1.18 | 14.00 | 64 | 14 | 102 | 5 | 19 | 1 | −10 | | | | | | | | | |
| 5432 | 5 | 19 | −5 | −5 | 0.03 | 0.31 | 0.01 | −0 | 0.03 | 0.07 | −5.00 | 4 | −5 | −5 | 86 | 13 | 1 | −10 | | | | | | | | | |
| 5433 | 14 | −10 | −5 | −5 | 0.16 | 0.69 | 0.02 | 0 | 0.16 | 0.61 | 11.00 | 20 | −5 | 39 | 140 | 6 | 1 | −10 | | | | | 2.40 | | | | |
| 5434 | 19 | 26 | −5 | −5 | 0.09 | 1.24 | 0.03 | 0 | 0.20 | 0.45 | 9.00 | 13 | −5 | 31 | 35 | −5 | −1 | −10 | | | | | | | | | |
| 5435 | 22 | −10 | −5 | −5 | 0.08 | 1.21 | 0.03 | 0 | 0.21 | 0.43 | 9.00 | 18 | −5 | 29 | 10 | −5 | −1 | −10 | | | | | | | | | |
| 5436 | 14 | −10 | −5 | −5 | 0.07 | 0.43 | 0.01 | 0 | 0.21 | 0.37 | 12.00 | 427 | −5 | 25 | 3 | −5 | 4 | −10 | | | | | | | | | |
| 5437 | 19 | 13 | −5 | −5 | 0.05 | 0.63 | 0.01 | 0 | 0.15 | 0.24 | 8.00 | 13 | −5 | 19 | 50 | −5 | 1 | −10 | | | | | | | | | |
| 5438 | 6 | 29 | −5 | −5 | 0.02 | 0.69 | 0.01 | 0 | 0.43 | 0.32 | 14.00 | 8 | −5 | 26 | 96 | −5 | −1 | −10 | | | | | | | | | |
| 5439 | 13 | 21 | −5 | −5 | 0.02 | 0.44 | −0.01 | 0 | 0.17 | 0.14 | 7.00 | 21 | −5 | 12 | 35 | 8 | 2 | −10 | | | | | | | | | |
| 5440 | 18 | −10 | −5 | −5 | 0.09 | 0.56 | 0.01 | 0 | 0.19 | 0.30 | 10.00 | 243 | −5 | 27 | 3 | −5 | 2 | −10 | | | | | | | | | |
| 5441 | 30 | 14 | −5 | −5 | 0.05 | 0.97 | 0.03 | 0 | 0.17 | 0.36 | 7.00 | 112 | −5 | 22 | 65 | 10 | 1 | −10 | | | | | | | | | |
| 5442 | 36 | 23 | −5 | −5 | 0.04 | 0.79 | 0.02 | 0 | 0.16 | 0.27 | 6.00 | 42 | −5 | 17 | 124 | 5 | 2 | −10 | | | | | | | | | |
| 5443 | 16 | −10 | −5 | 32 | 0.02 | 0.34 | −0.01 | 0 | 0.14 | 0.15 | 5.00 | 4 | −5 | 7 | 100 | 5 | 2 | −10 | | | | | | | | | |
| 5444 | 60 | 24 | −5 | −5 | 0.05 | 0.91 | 0.01 | 0 | 0.17 | 0.33 | 7.00 | 6 | −5 | 13 | 47 | 5 | 2 | −10 | | | | | | | | | |
| 5445 | 11 | 208 | −5 | −5 | −0.01 | 0.42 | −0.01 | 0 | 0.52 | 0.23 | 6.00 | 1 | −5 | 20 | 73 | −5 | 1 | −10 | | | | | | | | | |
| 5446 | 49 | 25 | −5 | −5 | 0.03 | 0.97 | 0.01 | 0 | 0.19 | 0.30 | −5.00 | 5 | −5 | 15 | 115 | −5 | 2 | −10 | | | | | | | | | |
| 5447 | 42 | 20 | −5 | −5 | 0.05 | 1.26 | 0.03 | 0 | 0.26 | 0.43 | −5.00 | 6 | −5 | 19 | 29 | 8 | 2 | −10 | | | | | | | | | |
| 5448 | 24 | 27 | −5 | −5 | 0.06 | 1.29 | 0.03 | 0 | 0.34 | 0.51 | 6.00 | 7 | −5 | 23 | 25 | 9 | 2 | −10 | | | | | | | | | |
| 5449 | 37 | 35 | −5 | −5 | 0.04 | 0.85 | 0.02 | 0 | 0.18 | 0.31 | −5.00 | 5 | −5 | 17 | 16 | 5 | 1 | −10 | | | | | | | | | |
| 5450 | 33 | −10 | −5 | −5 | 0.03 | 0.33 | −0.01 | −0 | 0.10 | 0.21 | −5.00 | −1 | −5 | 8 | 19 | −5 | 1 | −10 | | | | | | | | | |
| 5451 | 43 | −10 | −5 | −5 | 0.03 | 0.53 | −0.01 | 0 | 0.12 | 0.25 | 8.00 | 1 | −5 | 12 | 4 | −5 | −1 | −10 | | | | | | | | | |
| 5452 | 58 | 12 | −5 | 19 | 0.02 | 0.73 | −0.01 | 0 | 0.45 | 0.33 | 17.00 | 4 | −5 | 30 | 2 | −5 | −1 | −10 | | | | | | | | | |
| 5453 | 44 | 17 | −5 | 18 | −0.01 | 0.38 | −0.01 | −0 | 0.11 | 0.39 | −5.00 | −1 | −5 | 7 | 48 | −5 | −1 | −10 | | | | | | | | | |
| 5454 | 32 | −10 | −5 | −5 | 0.07 | 0.55 | 0.01 | 0 | 0.13 | 0.43 | 6.00 | 2 | −5 | 18 | 31 | −5 | −1 | −10 | | | | | | | | | |
| 5455 | 12 | −10 | −5 | 20 | 0.04 | 0.79 | 0.01 | 0 | 0.21 | 0.32 | 8.00 | 2 | −5 | 16 | 133 | −5 | −1 | −10 | | | | | | | | | |
| 5456 | 34 | −10 | −5 | −5 | 0.23 | 0.97 | 0.07 | 0 | 0.23 | 1.16 | 6.00 | 9 | −5 | 43 | 4 | −5 | −1 | −10 | | | | | | | | | |
| 5457 | 44 | −10 | −5 | −5 | −0.01 | 0.40 | −0.01 | 0 | 0.13 | 0.11 | 23.00 | 4 | −5 | 7 | 18 | −5 | −1 | −10 | | | | | | | | | |
| 5458 | 35 | −10 | −5 | −5 | 0.02 | 0.61 | 0.01 | 1 | 0.25 | 0.21 | 41.00 | 8 | −5 | 17 | 19 | −5 | −1 | −10 | | | | | | | | | |
| 5459 | 6 | 26 | −5 | −5 | −0.01 | 0.15 | −0.01 | −0 | 0.03 | 0.05 | −5.00 | −1 | −5 | −5 | 108 | −5 | −1 | −10 | | | | | 7.15 | | | | |
| 5460 | 29 | −10 | −5 | −5 | 0.07 | 0.56 | 0.02 | 0 | 0.11 | 0.39 | −5.00 | 5 | −5 | 16 | 72 | −5 | 1 | −10 | | | | | | | | | |
| 5461 | 23 | −10 | −5 | −5 | 0.13 | 1.09 | 0.03 | 0 | 0.19 | 0.61 | 6.00 | 6 | −5 | 42 | 16 | −5 | −1 | −10 | | | | | | | | | |
| 5462 | 11 | −10 | −5 | 14 | 0.26 | 0.88 | 0.02 | 0 | 0.19 | 0.67 | 10.00 | 43 | −5 | 72 | 6 | −5 | −1 | −10 | | | | | | | | | |
| 5464 | 12 | 16 | −5 | −5 | 0.07 | 0.75 | 0.02 | −0 | 0.04 | 0.30 | −5.00 | 9 | −5 | 10 | 336 | −5 | −1 | −10 | | | | | | | | | |
| 5502 | 29 | −10 | 13 | −5 | 0.37 | 2.52 | 0.10 | 0 | 0.24 | 0.64 | 8.00 | 50 | 6 | 79 | 3 | 8 | 1 | −10 | | | | | | | | | |
| 5503 | 68 | 15 | 10 | −5 | 0.62 | 4.27 | 0.21 | 0 | 0.39 | 0.64 | 30.00 | 58 | 10 | 146 | 4 | 8 | 1 | −10 | | | | | | | | | |
| 5504 | 20 | −10 | 15 | −5 | 0.28 | 2.26 | 0.08 | 0 | 0.17 | 0.53 | 6.00 | 48 | −5 | 51 | 2 | 10 | 2 | −10 | | | | | | | | | |
| 5505 | 25 | −10 | 20 | −5 | 0.40 | 2.64 | 0.10 | 0 | 0.20 | 0.58 | 9.00 | 56 | 8 | 95 | 3 | 15 | 3 | −10 | | | | | | | | | |
| 5506 | 58 | 17 | 18 | −5 | 0.79 | 3.62 | 0.20 | 0 | 0.35 | 0.48 | 28.00 | 74 | 13 | 176 | 1 | 6 | 1 | −10 | | | | | | | | | |
| 5507 | 34 | −10 | 12 | −5 | 0.33 | 2.95 | 0.23 | 0 | 0.23 | 0.68 | 9.00 | 44 | 7 | 74 | −1 | 11 | 2 | −10 | | | | | | | | | |
| 5508 | 18 | 21 | −5 | −5 | 0.06 | 0.70 | 0.03 | 0 | 0.05 | 0.17 | −5.00 | 9 | −5 | 9 | 492 | 25 | 2 | −10 | | | | | | | | | |
| 5509 | 113 | 17 | 20 | −5 | 1.03 | 4.37 | 0.22 | 0 | 0.36 | 0.65 | 34.00 | 74 | 19 | 255 | 2 | 10 | 1 | −10 | | | | | | | | | |
| 5510 | 34 | −10 | 12 | −5 | 0.29 | 2.07 | 0.10 | 0 | 0.14 | 0.56 | 6.00 | 41 | 5 | 78 | 7 | 17 | 3 | −10 | | | | | | | | | |

| Sample no. | Li ppm | Ga ppm | La ppm | Ta ppm | Ti % | Al % | Mg % | Ca % | Na % | K % | Nb ppm | Sr ppm | Y % | Zr ppm | Au ppb | Pt ppb | Pd ppb | Ge ppm | Rh ppb | Os ppb | Ir ppb | Ru ppb | Ag o/t | La ppm | Ce ppm | Pr ppm | Nd ppm |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5511 | 66 | 14 | 15 | −5 | 0.82 | 3.72 | 0.19 | 0 | 0.43 | 0.64 | 30.00 | 67 | 16 | 201 | −1 | 9 | −1 | −10 | | | | | | | | | |
| 5512 | 53 | −10 | 20 | −5 | 0.38 | 3.47 | 0.10 | 0 | 0.21 | 0.61 | 9.00 | 52 | 7 | 90 | 6 | 14 | 2 | −10 | | | | | | | | | |
| 5513 | 35 | −10 | 13 | −5 | 0.27 | 2.51 | 0.09 | 0 | 0.16 | 0.55 | 6.00 | 36 | 6 | 57 | 3 | 12 | 1 | −10 | | | | | | | | | |
| 5514 | 98 | 16 | 12 | −5 | 0.75 | 4.63 | 0.20 | 0 | 0.41 | 0.75 | 39.00 | 60 | 13 | 179 | −1 | 11 | 2 | −10 | | | | | | | | | |
| 5515 | 47 | −10 | 15 | −5 | 0.30 | 2.39 | 0.10 | 0 | 0.16 | 0.65 | 6.00 | 42 | 6 | 72 | 4 | 16 | 2 | −10 | | | | | | | | | |
| 5516 | 96 | 13 | 6 | −5 | 0.87 | 4.24 | 0.20 | 0 | 0.30 | 0.77 | 36.00 | 53 | 11 | 189 | −1 | 13 | 2 | −10 | | | | | | | | | |
| 5517 | 53 | 11 | 14 | −5 | 0.36 | 2.98 | 0.36 | 0 | 0.22 | 0.87 | 9.00 | 47 | 15 | 86 | −1 | 397 | 9 | −10 | | | | | | | | | |
| 5518 | 57 | 11 | 17 | −5 | 0.42 | 3.00 | 0.29 | 0 | 0.31 | 0.60 | 10.00 | 41 | 7 | 86 | −1 | −5 | −1 | −10 | | | | | | | | | |
| 5519 | 45 | 11 | 12 | −5 | 0.39 | 3.12 | 0.11 | 0 | 0.24 | 0.72 | 9.00 | 56 | 7 | 94 | 2 | −5 | −1 | −10 | | | | | | | | | |
| 5520 | 58 | 11 | 52 | −5 | 0.39 | 6.03 | 0.49 | 2 | 0.50 | 1.24 | 15.00 | 72 | 21 | 117 | −1 | −5 | −1 | −10 | | | | | | | | | |
| 5521 | 145 | 24 | 16 | −5 | 0.69 | 5.48 | 0.37 | 0 | 0.54 | 1.04 | 36.00 | 74 | 16 | 155 | 1 | 15 | 2 | −10 | | | | | | | | | |
| 5522 | 37 | −10 | 12 | −5 | 0.28 | 2.58 | 0.64 | 1 | 0.24 | 0.53 | 6.00 | 46 | 14 | 67 | −1 | −5 | −1 | −10 | | | | | | | | | |
| 5523 | 74 | 18 | 20 | −5 | 0.80 | 4.50 | 0.21 | 0 | 0.32 | 0.74 | 35.00 | 79 | 16 | 166 | 5 | 14 | 2 | −10 | | | | | | | | | |
| 5524 | 36 | −10 | 19 | −5 | 0.33 | 3.19 | 0.17 | 0 | 0.24 | 0.74 | 7.00 | 43 | 11 | 68 | −1 | −5 | −1 | −10 | | | | | | | | | |
| 5525 | 108 | 17 | 45 | 25 | 0.17 | 3.46 | −0.01 | 0 | −0.01 | 0.04 | 201.00 | 34 | 18 | 604 | 5 | 14 | 2 | −10 | | | | | | | | | |
| 5526 | 101 | 21 | 11 | −5 | 0.65 | 4.98 | 0.22 | 0 | 0.35 | 0.90 | 32.00 | 69 | 11 | 135 | 16 | 9 | 2 | −10 | | | | | | | | | |
| 5527 | 46 | −10 | 11 | −5 | 0.31 | 2.32 | 0.09 | 0 | 0.16 | 0.62 | 5.00 | 33 | −5 | 80 | 13 | 9 | −1 | −10 | | | | | | | | | |
| 5528 | 48 | −10 | 14 | −5 | 0.39 | 2.48 | 0.13 | 0 | 0.18 | 0.55 | 8.00 | 37 | 7 | 79 | 5 | 9 | −1 | −10 | | | | | | | | | |
| 5529 | 105 | 19 | 20 | −5 | 0.67 | 4.71 | 0.24 | 0 | 0.33 | 0.67 | 24.00 | 75 | 14 | 132 | 6 | 7 | 2 | −10 | | | | | | | | | |
| 5530 | 53 | −10 | 9 | −5 | 0.33 | 2.69 | 0.09 | 0 | 0.18 | 0.68 | 6.00 | 35 | 5 | 70 | 2 | 5 | −1 | −10 | | | | | | | | | |
| 5531 | 107 | 16 | 17 | −5 | 0.87 | 4.35 | 0.22 | 0 | 0.32 | 0.73 | 32.00 | 71 | 15 | 168 | −1 | 16 | 2 | −10 | | | | | | | | | |
| 5532 | 59 | −10 | 14 | −5 | 0.39 | 3.26 | 0.49 | 0 | 0.26 | 0.89 | 9.00 | 47 | 14 | 78 | −1 | 11 | −1 | −10 | | | | | | | | | |
| 5533 | 70 | −10 | −5 | −5 | 0.23 | 1.32 | 0.04 | 0 | 0.21 | 0.43 | −5.00 | 26 | −5 | 38 | 45 | 36 | 35 | −10 | | | | | | | | | |
| 5534 | 69 | 12 | 7 | −5 | 0.50 | 3.45 | 0.13 | 0 | 0.32 | 0.88 | 11.00 | 45 | −5 | 102 | 1 | 6 | 2 | −10 | | | | | | | | | |
| 5535 | 95 | 19 | 21 | −5 | 0.88 | 4.57 | 0.20 | 0 | 0.31 | 0.82 | 31.00 | 80 | 17 | 196 | −1 | 8 | 2 | −10 | | | | | | | | | |
| 5536 | 90 | 16 | 31 | −5 | 0.57 | 5.81 | 0.43 | 0 | 0.57 | 1.33 | 18.00 | 76 | 18 | 133 | −1 | 8 | −1 | −10 | | | | | | | | | |
| 5537 | 107 | 19 | 11 | −5 | 0.70 | 5.07 | 0.22 | 0 | 0.32 | 0.65 | 30.00 | 64 | 12 | 139 | 2 | 24 | 2 | −10 | | | | | | | | | |
| 5538 | 59 | 10 | 7 | −5 | 0.42 | 3.04 | 0.14 | 0 | 0.26 | 0.79 | 9.00 | 40 | −5 | 87 | 1 | 10 | 2 | −10 | | | | | | | | | |
| 5539 | 84 | 18 | 14 | −5 | 0.82 | 4.57 | 0.22 | 0 | 0.31 | 0.70 | 30.00 | 66 | 15 | 157 | −1 | 21 | 2 | −10 | | | | | | | | | |
| 5540 | 60 | −10 | 6 | −5 | 0.40 | 2.90 | 0.71 | 0 | 0.28 | 0.80 | 10.00 | 39 | 8 | 85 | −1 | 12 | −1 | −10 | | | | | | | | | |
| 5541 | 43 | −10 | 11 | −5 | 0.37 | 3.00 | 0.12 | 0 | 0.22 | 0.72 | 9.00 | 38 | 5 | 88 | −1 | 9 | 1 | −10 | | | | | | | | | |
| 5542 | 37 | −10 | 11 | −5 | 0.42 | 3.31 | 0.15 | 0 | 0.25 | 0.80 | 11.00 | 48 | 7 | 104 | −1 | 9 | −1 | −10 | | | | | | | | | |
| 5543 | 94 | 21 | 20 | −5 | 0.79 | 5.54 | 0.27 | 0 | 0.47 | 1.14 | 36.00 | 81 | 16 | 172 | −1 | 16 | 2 | −10 | | | | | | | | | |
| 5544 | 52 | 10 | 9 | −5 | 0.48 | 3.26 | 0.18 | 0 | 0.27 | 0.86 | 11.00 | 42 | 7 | 107 | −1 | 6 | 1 | −10 | | | | | | | | | |
| 5545 | 13 | 22 | −5 | −5 | 0.01 | 0.16 | −0.01 | −0 | 0.02 | 0.02 | −5.00 | −1 | −5 | −5 | 110 | 9 | −1 | −10 | | | | | | | | | |
| 5546 | 71 | 10 | −5 | −5 | 0.14 | 3.10 | 0.06 | 0 | 0.20 | 0.42 | 5.00 | 20 | −5 | 37 | 34 | 10 | 1 | −10 | | | | | | | | | |
| 5547 | 71 | 18 | 10 | −5 | 0.78 | 4.19 | 0.21 | 0 | 0.38 | 0.76 | 32.00 | 58 | 11 | 148 | −1 | −5 | 2 | −10 | | | | | | | | | |
| 5548 | 31 | −10 | 15 | −5 | 0.32 | 2.75 | 0.13 | 0 | 0.24 | 0.80 | 8.00 | 43 | 8 | 83 | 2 | 8 | −1 | −10 | | | | | | | | | |
| 5549 | 145 | 25 | 6 | −5 | 0.72 | 5.60 | 0.20 | 0 | 0.39 | 0.88 | 31.00 | 71 | 8 | 141 | 4 | 10 | 2 | −10 | | | | | | | | | |
| 5550 | 41 | −10 | 19 | −5 | 0.28 | 2.03 | 0.10 | 0 | 0.14 | 0.52 | 6.00 | 38 | 7 | 106 | 7 | 17 | 2 | −10 | | | | | | | | | |
| 5551 | 21 | −10 | −5 | −5 | 0.10 | 0.45 | 0.01 | 0 | 0.14 | 0.30 | 5.00 | 184 | −5 | 32 | 17 | −5 | −1 | −10 | | | | | | | | | |
| 5552 | 23 | 11 | −5 | −5 | 0.09 | 0.89 | 0.02 | 0 | 0.14 | 0.39 | −5.00 | 21 | −5 | 32 | 29 | −5 | −1 | −10 | | | | | | | | | |
| 5553 | 8 | 10 | −5 | −5 | 0.02 | 0.87 | 0.01 | 0 | 0.14 | 0.36 | −5.00 | 34 | 6 | 25 | 17 | −5 | −1 | −10 | | | | | | | | | |
| 5554 | 10 | 14 | −5 | −5 | 0.02 | 0.47 | −0.01 | 0 | 0.29 | 0.28 | 8.00 | 668 | −5 | 24 | 17 | −5 | −1 | −10 | | | | | | | | | |
| 5555 | 37 | −10 | −5 | −5 | 0.09 | 1.18 | 0.03 | 0 | 0.18 | 0.52 | −5.00 | 21 | −5 | 32 | 53 | −5 | −1 | −10 | | | | | | | | | |
| 5556 | 37 | −10 | −5 | −5 | −0.01 | 0.25 | 0.08 | 0 | 0.02 | 0.03 | 26.00 | 6 | −5 | −5 | 82 | −5 | −1 | −10 | | | | | | | | | |
| 5556 | 37 | 18 | −5 | 21 | −0.01 | 0.25 | 0.09 | 0 | 0.02 | 0.04 | 13.00 | 4 | −5 | −5 | 23 | −5 | −1 | −10 | | | | | | | | | |
| 5557 | 26 | −10 | 8 | 51 | 0.05 | 1.04 | 0.10 | 1 | 0.04 | 0.32 | −5.00 | 17 | 7 | 10 | 8 | −5 | −1 | −10 | | | | | | | | | |
| 5558 | 49 | −10 | −5 | −5 | 0.02 | 0.61 | 0.09 | 0 | 0.03 | 0.17 | −5.00 | 6 | −5 | −5 | 15 | −5 | −1 | −10 | | | | | | | | | |
| 5559 | 38 | 14 | 6 | −5 | 0.08 | 1.19 | 0.11 | 0 | 0.03 | 0.38 | −5.00 | 9 | −5 | 13 | 22 | −5 | −1 | −10 | | | | | | | | | |
| 5560 | 28 | 59 | −5 | −5 | 0.06 | 0.76 | 0.09 | −0 | 0.03 | 0.27 | −5.00 | 5 | −5 | 8 | 63 | 5 | 9 | −10 | | | | | | | | | |
| 5561 | 56 | −10 | 7 | 37 | 0.08 | 1.47 | 0.11 | 0 | 0.04 | 0.44 | −5.00 | 12 | −5 | 13 | 10 | −5 | −1 | −10 | | | | | | | | | |
| 5562 | 28 | 37 | −5 | −5 | 0.03 | 0.66 | 0.09 | 0 | 0.03 | 0.21 | 8.00 | 7 | −5 | 5 | 27 | −5 | 1 | −10 | | | | | | | | | |
| 5563 | 41 | −10 | −5 | 25 | 0.03 | 0.68 | 0.09 | 0 | 0.03 | 0.21 | −5.00 | 8 | −5 | 6 | 32 | −5 | −1 | −10 | | | | | | | | | |
| 5564 | 38 | 24 | −5 | −5 | 0.01 | 0.37 | 0.08 | 0 | 0.03 | 0.08 | −5.00 | 5 | −5 | −5 | 26 | −5 | −1 | −10 | | | | | 1.88 | | | | |
| 5565 | 25 | −10 | 18 | 76 | 0.09 | 1.44 | 0.11 | 0 | 0.03 | 0.50 | −5.00 | 31 | 7 | 22 | 101 | −5 | 1 | −10 | | | | | | | | | |
| 5601 | 16 | −10 | −5 | −5 | 0.06 | 0.53 | 0.08 | −0 | 0.01 | 0.13 | −5.00 | 19 | −5 | 13 | 13 | −5 | −1 | −10 | | | | | 5.94 | | | | |
| 5602 | 9 | −10 | −5 | −5 | 0.04 | 0.44 | 0.08 | 0 | 0.18 | 0.12 | −5.00 | 484 | 6 | 15 | 1 | −5 | −1 | −10 | | | | | | | | | |

APPENDIX. 1990–1991 CMD Sample Analytical Results

| Sample no. | Li ppm | Ga ppm | La ppm | Ta ppm | Ti % | Al % | Mg % | Ca % | Na % | K % | Nb ppm | Sr ppm | Y % | Zr ppm | Au ppb | Pt ppb | Pd ppb | Ge ppm | Rh ppb | Os ppb | Ir ppb | Ru ppb | Ag o/t | La ppm | Ce ppm | Pr ppm | Nd ppm |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5603 | 20 | −10 | −5 | 126 | −0.01 | 0.26 | 0.08 | 1 | 0.02 | 0.07 | 28.00 | 14 | −5 | −5 | 17 | 7 | 1 | −10 | | | | | | | | | |
| 5604 | 30 | −10 | −5 | 57 | 0.01 | 0.32 | 0.09 | 0 | 0.02 | 0.08 | −5.00 | 58 | −5 | −5 | 13 | −5 | −1 | −10 | | | | | | | | | |
| 5605 | 26 | 11 | 13 | −5 | 0.21 | 1.85 | 0.13 | 0 | 0.03 | 0.41 | −5.00 | 28 | 11 | 43 | 11 | −5 | −1 | −10 | | | | | | | | | |

| Sample no. | Sm ppm | Eu ppm | Gd ppm | Tb ppm | Dy ppm | Ho ppm | Er pp | Tm ppm | Yb ppm | Lu ppm | Sc ppm | Th ppm | U ppm |
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| 4001 | | | | | | | | | | | | | |
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| 4007 | | | | | | | | | | | | | |
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| 4054 | | | | | | | | | | | | | |
| 4055 | | | | | | | | | | | | | |
| 4056 | | | | | | | | | | | | | |
| 4057 | | | | | | | | | | | | | |
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| 4059 | | | | | | | | | | | | | |

| Sample no. | Sm ppm | Eu ppm | Gd ppm | Tb ppm | Dy ppm | Ho ppm | Er pp | Tm ppm | Yb ppm | Lu ppm | Sc ppm | Th ppm | U ppm |
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| 4060 | | | | | | | | | | | | | |
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| 4070 | | | | | | | | | | | | | |
| 4071 | | | | | | | | | | | | | |
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| 4075 | | | | | | | | | | | | | |
| 4076 | | | | | | | | | | | | | |
| 4077 | | | | | | | | | | | | | |
| 4078 | | | | | | | | | | | | | |
| 4079 | | | | | | | | | | | | | |
| 4080 | 11.9 | 2.8 | <200 | 2.2 | 18 | 4.2 | <100 | <2 | 12 | 1.9 | | 1.1 | 126 |
| 4081 | | | | | | | | | | | | | |
| 4082 | | | | | | | | | | | | | |
| 4083 | | | | | | | | | | | | | |
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| Sample no. | Sm ppm | Eu ppm | Gd ppm | Tb ppm | Dy ppm | Ho ppm | Er pp | Tm ppm | Yb ppm | Lu ppm | Sc ppm | Th ppm | U ppm |
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APPENDIX. 1990–1991 CMD Sample Analytical Results

| Sample no. | Sm ppm | Eu ppm | Gd ppm | Tb ppm | Dy ppm | Ho ppm | Er pp | Tm ppm | Yb ppm | Lu ppm | Sc ppm | Th ppm | U ppm |
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| 4218 | | | | | | | | | | | | | |
| 4219 | 15.0 | 3.3 | <200 | 2.5 | 15 | 3.7 | <100 | <2.0 | 11 | 1.6 | 2.59 | 1.1 | 150 |
| 4220 | | | | | | | | | | | | | |
| 4221 | | | | | | | | | | | | | |
| 4222 | | | | | | | | | | | | | |
| 4223 | | | | | | | | | | | | | |
| 4224 | | | | | | | | | 1 | 0.1 | 3.10 | 1.5 | <1.0 |
| 4225 | | | | | | | | | 1 | <0.10 | 2.60 | 1.4 | <1.0 |
| 4226 | | | | | | | | | 1 | <0.10 | 1.60 | 1.3 | <1.0 |
| 4241 | | | | | | | | | | | | | |
| 5001 | | | | | | | | | | | | | |
| 5002 | | | | | | | | | | | | | |
| 5003 | | | | | | | | | | | | | |
| 5004 | | | | | | | | | | | | | |
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| Sample no. | Sm ppm | Eu ppm | Gd ppm | Tb ppm | Dy ppm | Ho ppm | Er pp | Tm ppm | Yb ppm | Lu ppm | Sc ppm | Th ppm | U ppm |
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APPENDIX. 1990–1991 CMD Sample Analytical Results

| Sample no. | Sm ppm | Eu ppm | Gd ppm | Tb ppm | Dy ppm | Ho ppm | Er pp | Tm ppm | Yb ppm | Lu ppm | Sc ppm | Th ppm | U ppm |
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APPENDIX. 1990–1991 CMD Sample Analytical Results

| Sample no. | Sm ppm | Eu ppm | Gd ppm | Tb ppm | Dy ppm | Ho ppm | Er pp | Tm ppm | Yb ppm | Lu ppm | Sc ppm | Th ppm | U ppm |
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APPENDIX. 1990–1991 CMD Sample Analytical Results

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APPENDIX. 1990–1991 CMD Sample Analytical Results

| Sample no. | Sm ppm | Eu ppm | Gd ppm | Tb ppm | Dy ppm | Ho ppm | Er pp | Tm ppm | Yb ppm | Lu ppm | Sc ppm | Th ppm | U ppm |
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APPENDIX. 1990–1991 CMD Sample Analytical Results

| Sample no. | Sm ppm | Eu ppm | Gd ppm | Tb ppm | Dy ppm | Ho ppm | Er pp | Tm ppm | Yb ppm | Lu ppm | Sc ppm | Th ppm | U ppm |
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APPENDIX. 1990–1991 CMD Sample Analytical Results

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| Sample no. | Sm ppm | Eu ppm | Gd ppm | Tb ppm | Dy ppm | Ho ppm | Er pp | Tm ppm | Yb ppm | Lu ppm | Sc ppm | Th ppm | U ppm |
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| Sample no. | Sm ppm | Eu ppm | Gd ppm | Tb ppm | Dy ppm | Ho ppm | Er pp | Tm ppm | Yb ppm | Lu ppm | Sc ppm | Th ppm | U ppm |
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APPENDIX. 1990–1991 CMD Sample Analytical Results

| Sample no. | Sm ppm | Eu ppm | Gd ppm | Tb ppm | Dy ppm | Ho ppm | Er pp | Tm ppm | Yb ppm | Lu ppm | Sc ppm | Th ppm | U ppm |
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