

KALZAS PROJECT

Mayo Mining Division
NTS 105M/07
Yukon Territory

Report on 2002 Field Program

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INTRODUCTION

Copper Ridge Explorations Inc. acquired an option on the Kalzas tungsten-tin-silver property in July 2001. The deposit was discovered in 1978 and optioned to Union Carbide Corporation in 1981 during a period of high tungsten prices. From 1981 to 1984, Union Carbide carried out a program of geological mapping, sampling of soils, talus and outcrop, airborne geophysics, bulldozer road building and trenching and diamond drilling of two holes. The Union Carbide work confirmed the presence of a large, porphyry-style quartz vein and stockwork tungsten deposit at the western end of Kalzas peak. With the significant drop in tungsten prices in the early 1980's, Union Carbide dropped their option. In its final report (Forster, 1985), Union Carbide referred to Kalzas as "*an exceptional exploration project with potential to a world class, low cost producer*".

Most of the detailed records from the Union Carbide work are not available for review. However, summary assessment reports and a limited number of surface plans and drill sections have allowed a reasonable compilation of the Union Carbide work. Sampling in 2001 (Carlson, 2001) confirmed the large tungsten stockwork zone identified by Union Carbide and also encountered high tungsten grades over significant widths on surface. The current program focused on these high grade zones, with larger samples collected over smaller sample widths. Results from this program suggest that there is good potential to define high grade tungsten zones, grading 1% WO₃ and higher, over widths of one to several meters at surface. The continuity of these zones along strike and at depth is believed to be good, as the high grade appears to follow the steeply dipping stratigraphy. However, since outcrop exposure is limited to the existing trenches, drilling will be required to confirm lateral continuity of the high grade tungsten zones.

PHYSICAL SETTING

Location and Access

The Kalzas property is located in central Yukon Territory on the Kalzas Plateau south of the Stewart River, 70 km southeast of Mayo and 290 km north of Whitehorse. The claims are located in the Mayo Mining Division, NTS sheet 105M/07, centred at 63° 16' north latitude and 134° 42' west longitude, Yukon Minfile number 105M 066.

Access is by helicopter from Mayo. A serviceable airstrip exists on the property, accommodating up to a Twin Otter aircraft. Fuel and heavy equipment for the Union Carbide trenching and drilling programs was moved to the property on a 75-km winter road from Mayo. Bulldozer trails have been constructed over the main showing area, with access to the camp and airstrip.

For the current program, access was by fixed wing from Whitehorse using an Alkan Air Single Otter and a Cessna 206 as well as a Trans North Jet Ranger Helicopter from Mayo.



Figure 1: Kalzas Project Yukon location.

Physiography

The claims are centred on the 1936 m western peak of the Kalzas Twins Mountain within the northern Yukon Plateau physiographic province. Big Kalzas Lake, 4 km to the south, has an elevation of 780 m. The camp and airstrip are located at about 1350 m elevation.

Most of the claim block is covered by talus, with some grass and moss on more stable slopes. Outcrop is limited to ridge crests and, occasionally, near the base of talus slopes. Sparse bush and alpine spruce occur below 1400 m. All of the key mineralization discovered to date is above tree line.

Property Description

The property consists of 8 quartz mining claims located in the Mayo Mining Division, NTS 105M/7, as more fully described in Appendix "A". The claims are surrounded by Selkirk First Nations Class A land claim selection R-16A.

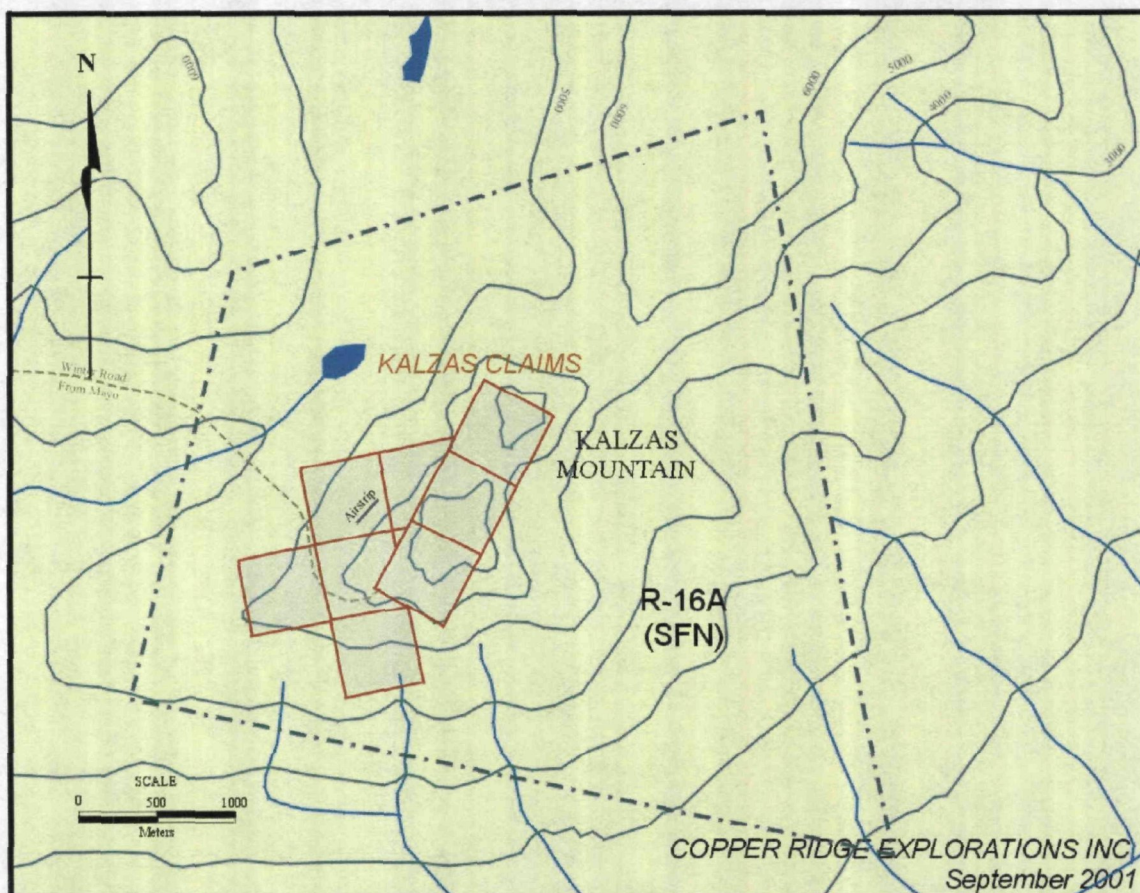


Figure 2. Kalzas Project Claims.

HISTORY

Property Ownership and Exploration History

The property was discovered and staked in 1978 by prospector J.D. Randolph, who was initially investigating some high grade silver showings. In 1980, the property was optioned to Union Carbide Corporation. Union Carbide carried out prospecting, geological mapping, soil sampling and extensive rock sampling, mainly talus, in 1981 and 1982. During this period, an aeromagnetic survey of the claim block and adjacent areas was flown. In 1983, a winter road was constructed from Mayo for transport of fuel and a diamond drill to the property. Road building and bulldozer trenching exposed extensive outcrop for sampling on the upper slopes of the mountain. An 840 m airstrip was constructed near the camp on the north side of the mountain. Late in the season, two core drill holes were completed for a total of 668 m.

It is believed the heavy equipment was demobilized during the following winter season. The property option was dropped by Union Carbide in 1984 because of the severely depressed tungsten market.

Except for small assessment work programs in the early 1990's, carried out by the property owner, no further significant exploration work has been done on the property since that time.

In July, 2001, Copper Ridge acquired an option on the Kalzas property whereby it can earn a 100% interest in the claims, subject to a 2% NSR, by spending \$300,000 in exploration on the property and issuing 200,000 shares and paying \$75,000 to the vendors over four and a half years. Copper Ridge can purchase 1% of the NSR for \$500,000 and must issue an additional 200,000 shares to the vendors on a production decision.

Copper Ridge completed a one-week program of re-sampling core and trenches in August, 2001. Subsequently, Copper Ridge focused on the high grade tungsten zones with a program of detailed trench sampling in August, 2002. That work is the subject of this report.

Summary of Key Historical Results

The initial work by Union Carbide defined a strong (+1,000 ppm W) tungsten anomaly in soils and talus fines with a dimension of 1,500 m long, in a northeasterly direction, by 300 to 900 m wide. This anomaly was surrounded and partially overlapped by anomalous values of silver and tin. Within this anomalous zone, sampling of the talus material was carried out in detail on some of the grid lines with 20 kg bulk samples along 20 m and 25 m intervals. Results are tabulated below:

Table I – Union Carbide Trench Results

Line	Station	Width (metres)	Quartz Veins WO ₃ (%)	Country Rock WO ₃ (%)
L43N	80W to 100W	20	.40	.26
	100W to 120W	20	1.18	--
	Average	40	0.79	--
L43N	150W to 175W	25	0.65	0.03
	175W to 200W	25	0.53	0.05
	200W to 225W	25	1.64	0.15
	225W to 250W	25	1.77	0.28
	250W to 275W	25	0.69	0.38
	275W to 300W	25	1.33	0.14
	300W to 325W	25	0.31	0.18
	325W to 350W	25	0.51	0.17
	Average	150	1.04	0.21
Line	Stations	Width (metres)	Bulk Rock WO ₃ (%)	Bulk Rock Sn(%)
L43N	525W to 550W	25	0.24	0.07
	550W to 575W	25	0.38	0.04
	Average	50	0.31	0.055
L40N	175W to 200W	25	0.08	--
	200W to 225W	25	0.44	--
	225W to 250W	25	0.34	--
	250W to 275W	25	0.22	--
	275W to 300W	25	0.16	--
	300W to 325W	25	0.24	--
	325W to 350W	25	0.73	--
	Average	175	0.32	--

Union Carbide carried out subsequent sampling of bulldozer trenches through the central part of the deposit. However, except for a summary compilation map dated March 1984, the results of this later sampling are not presently available. Results from the two drill holes confirmed

tungsten values on the same order of magnitude as the surface samples, although the first hole did not reach the target depth and the second hole tested the main zone at least 300 m below the surface exposure. Because of this, correlation of drill hole intercepts with specific surface zones is not possible. Unfortunately, most of the Union Carbide maps, data and interpretive reports are not available for review and likely have been lost from the record.

GEOLOGY AND MINERALIZATION

Regional Geology

The Kalzas property is underlain by rocks of the Late Proterozoic Yusezyu Formation belonging to the Hyland Group (Roots, 1997). Regionally, these form the basal rocks of the Selwyn Basin. Selwyn Basin includes sedimentary rocks from Late Proterozoic to Jurassic in age, deposited on the continental margin of ancient North America and subsequently intruded by mid-Cretaceous S-type granitic rocks.

In the Kalzas region, deformation results primarily from the collision of arc and oceanic terranes to the west with ancestral North America. This occurred between Upper Jurassic and Early Cretaceous time. The result was telescoping of the sedimentary succession by a combination of imbricate faulting, folding and displacement on slaty cleavage. The rocks in the area are within the Robert Service thrust sheet. The Kalzas area is far enough removed from this thrust that its effects, shearing and foliation, are not a dominating feature as they are farther to the north, closer to the thrust plane.

The Yusezyu Formation is the only formation mapped in the vicinity of the Kalzas property. It is the oldest mappable unit in the Mayo map sheet and consists of metasandstone with grit, quartzite and phyllite, a distinctive black slate member and minor limestone and conglomerate.

Intrusive rocks in the area, including the MacArthur Batholith, 60 km to the west, are part of the 90 to 95 Ma Tombstone Intrusive Suite. Compositions range from granodiorite to quartz monzonite and leucocratic granite. Porphyritic phases are noted locally.

The large alteration zone at Kalzas combined with the interpretation of the aeromagnetic survey over the claim group suggests that a shallow, composite, pluton, likely belonging to the Tombstone Suite, occurs at depth below the property. However, no intrusive rocks have been observed at Kalzas.

Property Geology

The property geology was mapped by Forster (1981) although subsequent refinements to this original mapping by Union Carbide, carried out from 1982 to 1984, are not available. Lynch (1985) completed his M.Sc. thesis on the property studying the mineralization and alteration.

Unaltered host rock for the Kalzas property consists of interbedded chloritic phyllite and feldspathic quartzite, with lesser amounts of siltstone, dark shale and quartz-feldspar pebble conglomerate. The phyllite consists of chlorite, sericite and quartz and often grades into siltstone. It is sometimes rusty weathering due to its minor pyrite content.

The quartzite consists of 80 to 90 percent quartz as coarse sand-sized grains, with the remainder of the rock consisting of feldspar with trace zircon and magnetite. Individual quartzite beds are up to 3 m thick and contacts with phyllite are typically sharp.

There are at least two conglomerate units within the property with rounded quartz clasts and up to 10 percent feldspar clasts.

Bedding typically strikes northwesterly with steep to vertical dips. Tight folding has been observed and bedding attitudes suggest a property-scale southeasterly plunging fold axis.

Alteration

Four roughly concentric alteration phases have been defined forming a northwest trending oval, generally concordant with the stratigraphy and approximately 2.5 km long. The core is a K-feldspar zone, followed by a wolframite zone, a quartz-tourmaline zone and the outermost quartz-sericite-pyrite zone.

The quartz-sericite-pyrite zone has a distinct whitish colour with rusty patches due to pyrite weathering. Weak and relatively minor stockwork and sheeted veining occurs. Sericitization is pervasive. Pyrite is typically less than 5% as disseminated, one to two mm cubes.

The quartz-tourmaline zone is distinguished by the presence of tourmaline but the absence of wolframite. Tourmaline occurs in sheeted veins, stockwork veins, in vein halos and as pervasive alteration of the host rocks. Stockwork veins are thin, typically one to five mm wide, forming a complex boxwork. The veinlets are vuggy and contain euhedral to subhedral quartz and tourmaline, with a complete gradation from pure tourmaline to pure quartz. Haloes to these veinlets typically consist of several mm of tourmaline, grading to sericite. Where stockwork is less intense, pervasive alteration occurs, with sericite dominating in the quartzitic units and tourmaline in the phyllites. In the larger sheeted veins, tourmaline occurs as acicular crystals of up to three cm in length.

The wolframite zone overlaps the core potassic zone and most of the surrounding quartz-tourmaline zone and is described below under "Mineralization".

The core zone is characterized by K-feldspar and minor sulfides in sheeted veins and biotite in the wall rock. Biotite occurs preferentially in the quartzitic units, replacing chlorite. Biotite also occurs in sinuous micro-veinlets. Sulphides include pyrite, pyrrhotite, chalcopyrite, molybdenite, bismuthinite, galena and arsenopyrite. Other accessories include apatite and rutile.

Mineralization

Lynch (1985) reports wolframite occurring as coarse-grained bladed crystals within the sheeted veins and quartz stockworks. It also occurs as disseminations within the quartz-tourmaline greisens. Scheelite is much less abundant than wolframite and occurs as encrustations on wolframite and sometimes as large, euhedral crystals in quartz veins. Tin occurs as cassiterite in tabular crystals and amorphous masses, irregularly around the periphery of the wolframite zone.

The structural control of mineralization is not fully understood, but it is undoubtedly related to the regional structures that controlled emplacement of the underlying pluton. Interpretation of the airborne magnetic survey indicates regional east-west and northeast trending structures as well as a local radial fracture pattern related to intrusion of the pluton (Forster, 1984). Bedding throughout the mineralized zone is typically steeply dipping and strikes northwest, with a major

anticline indicated having a fold axis at 125° with a plunge of 40°. This is parallel to the long axis of the mineralized system.

Many of the mineralized fractures and stockwork veins are steeply dipping and sub-parallel to this direction. Although the larger sheeted veins have many different orientations, the vast majority are oriented roughly perpendicular to the fold axis, striking 070° and dipping 35° to the northwest.

It appears from the structural observations noted above and the pattern of higher grade tungsten zones as shown in Figure 9, that the east-northeast orientation (125°), parallel to the fold axis and sub-parallel to bedding, is important in controlling these high grade zones.

2002 WORK PROGRAM

Purpose

The purpose of the 2002 field program was to sample and map the high grade zones within the Union Carbide trenches, as identified by Copper Ridge's 2001 program. Large samples were to be collected in order to minimize the potential problems of a nugget effect.

Work Completed

Sampling was completed over 170.2 m of trenches with the collection of 134 chip samples. The samples over the key mineralized areas averaged one meters in length and individual samples weighed at least five kg with chips averaging one to three cm in size. Sample locations and results are shown in Appendix "C". Sampling was carried out under the supervision of Aurum Geological Consultants of Whitehorse and mapping was completed by Anne Ledwidge of Doyle Gold Consultants, Dawson City.

Analytical Method

Samples were analyzed at Acme Analytical Laboratories for whole rock trace elements (Group 4B) by ICP MS using a lithium borate fusion plus a fire assay analysis for gold. Summary of the tungsten results is shown in Appendix "C" while assay certificates are included in Appendix "D"

RESULTS

The sampled trenches are typically cut at right angles to the major structure and stratigraphy. The results, highlights of which are shown in the table below, confirm the potential to define one or more parallel zones grading 1% WO₃ (tungsten trioxide) or higher (highlighted in the table) over widths of one to six metres. Geological observations suggest that these high-grade zones would have a steep and elongate orientation within a zone up to 100 m wide and approximately 400 m along strike.

The individual trench locations are shown on Figure 3 while geological sketch maps of individual trenches, with tungsten assay values, are shown on Figures 5 to 23, beginning with a common geological legend on Figure 4.

Table II – Trench Assay Highlights

Location	Length (m)	WO ₃ (%)
Lower Levels	4.0	0.539
Middle Road	2.0	0.605
Middle Road	3.0	0.783
Middle Road	1.2	1.211
Upper Levels	2.0	0.902
Upper Levels	1.0	1.097
Upper Levels	1.0	1.665
Upper Levels	8.0	0.608
Upper Levels	0.4	3.165
South Upper Levels	6.0	0.712
Including	2.0	1.669
South Upper Levels	2.5	1.266
South Upper Levels	15.0	0.597
Including	2.0	2.552
Including	6.0	1.219

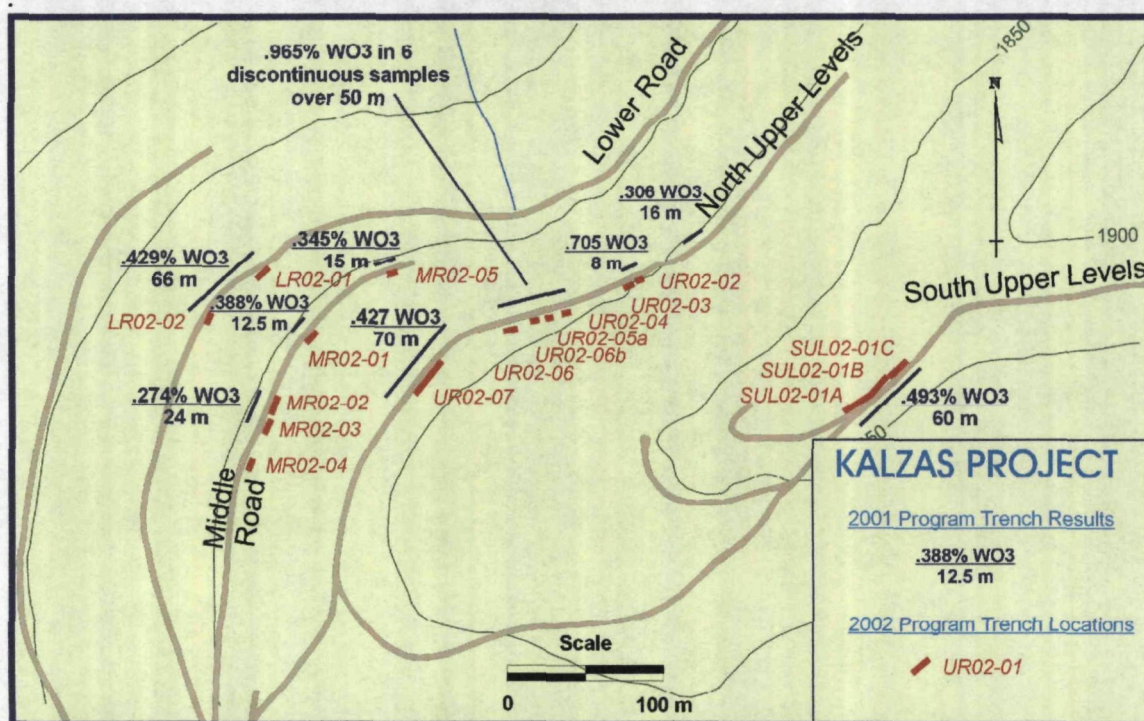


Figure 3. Trench Locations.

The legend shown below (Figure 4) shows the rock units, structure and alteration mapped along the key sampled trenches. Generally, there is a correlation between high tungsten values and quartzite, particularly where the quartzite is veined or exhibits stockwork veining with tourmaline and chlorite.

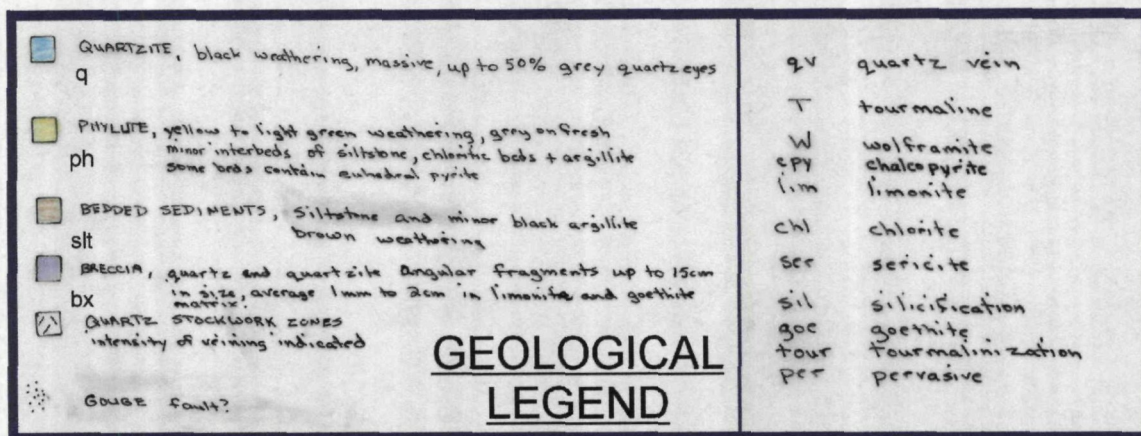


Figure 4. Geological legend for trench mapping.

Trench locations are indicated by the letters LR – Lower Road, MR – Middle Road, SUL – South Upper Levels and SSD – a breccia outcrop down slope from the South Upper Levels. Tungsten assay results are shown below their mapped interval and sample number.

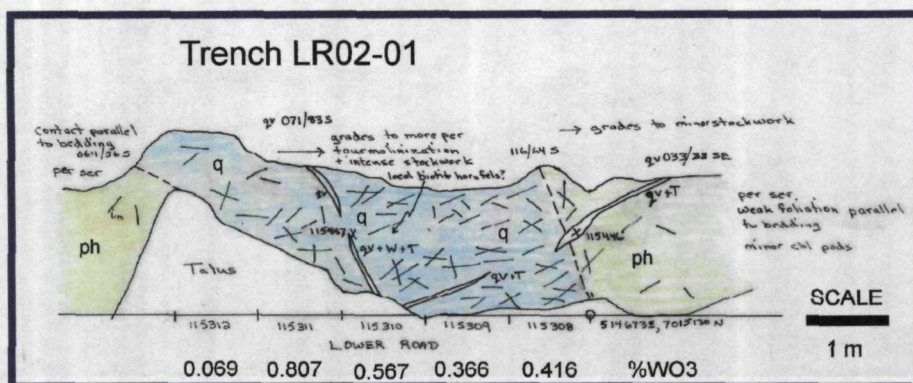


Figure 5. Trench LR02-01 and WO3 assays.

In trench LR02-01, the highest tungsten values correlate with the area of most intense stockwork and two roughly orthogonal and discontinuous quartz veins. Tourmalinization and biotite hornfels is also noted.

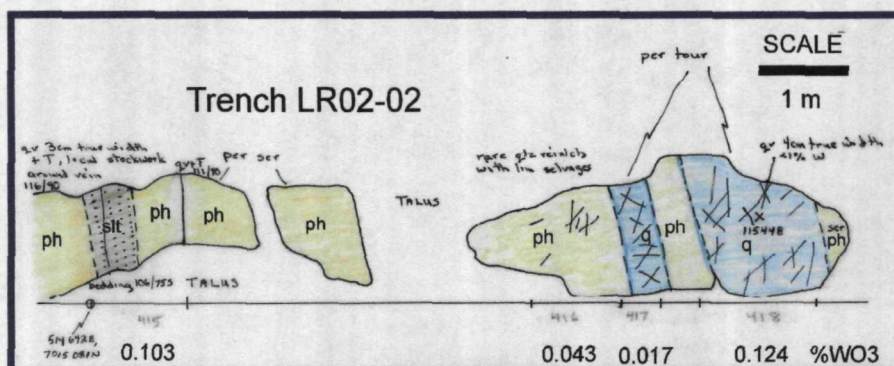


Figure 6. Trench LR02-02 and WO3 assays.

Trench LR02-02 is mostly low grade with plus 0.1% values associated with tourmalinized quartzite and siltstone with a narrow quartz vein.

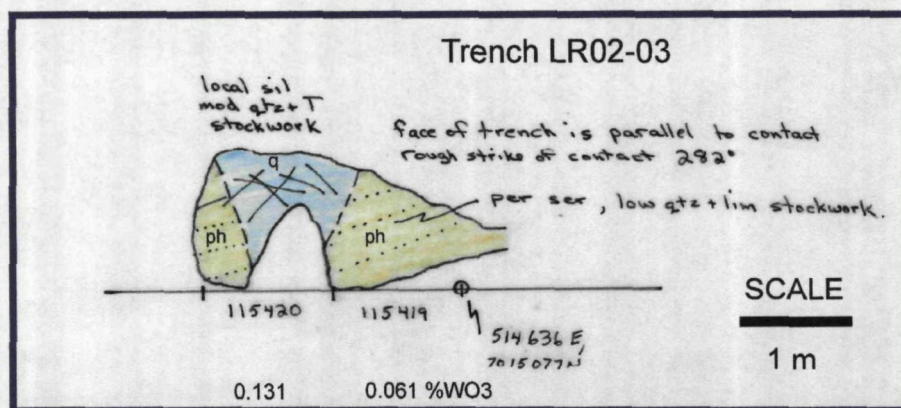


Figure 7. Trench LR02-03 and WO3 assays.

Higher tungsten values with moderate stockwork in quartzite.

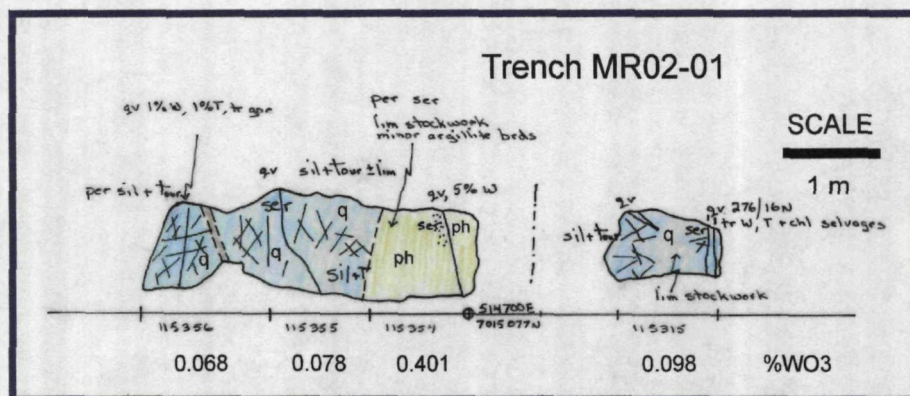


Figure 8. Trench MR02-01 and WO3 assays.

Low tungsten values in stockwork and tourmalinized quartzite. Higher tungsten in phyllite cut but a wolframite-bearing quartz vein.

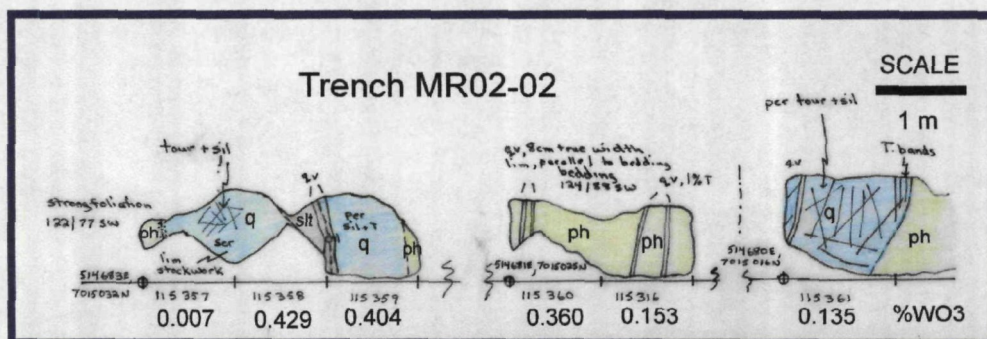


Figure 9. Trench MR02-02 and WO3 assays.

Weak to moderate tungsten values in quartzite and phyllite with quartz veining, minor stockwork and tourmalinization.

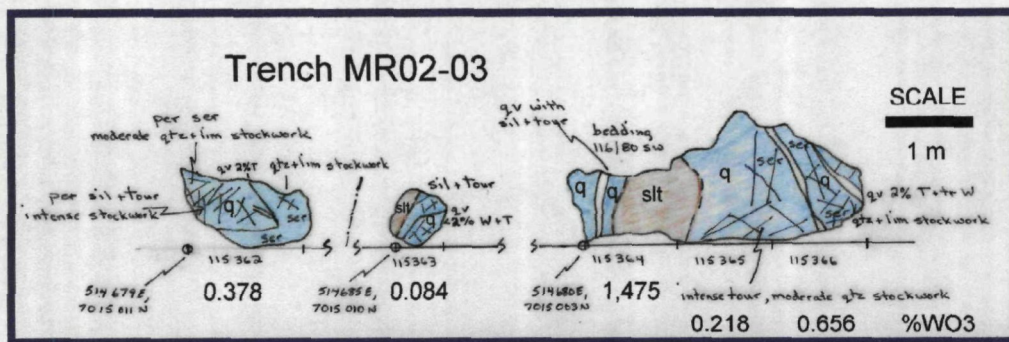


Figure 10. Trench MR02-03 and WO3 assays.

High grade tungsten values in tourmalinized and stockwork quartzite with quartz veining.

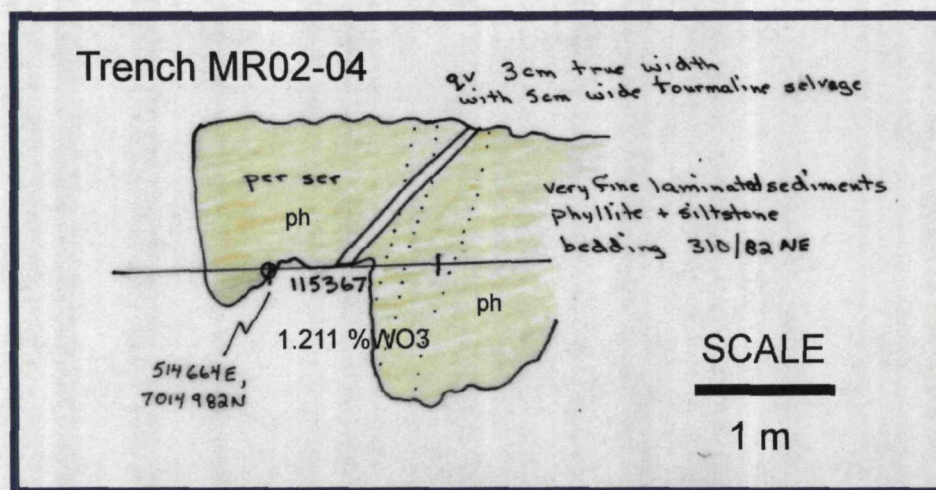


Figure 11. Trench MR02-04 and WO3 assays.

High grade tungsten related mainly to quartz vein cutting phyllite.

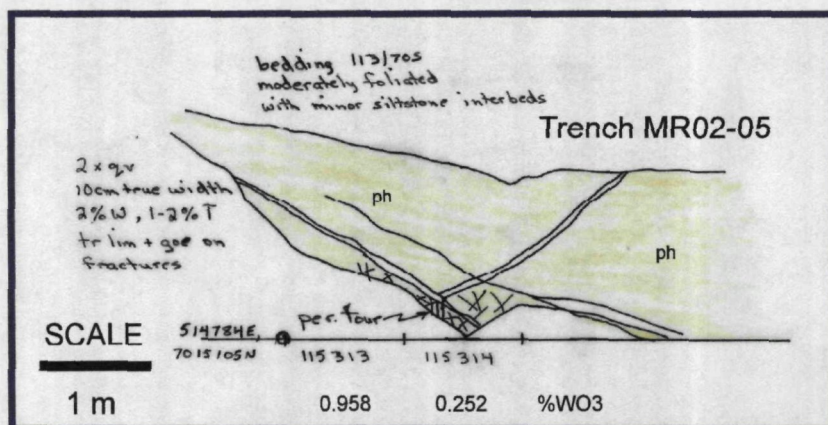


Figure 12. Trench MR02-05 and WO3 assays.

Moderate to high grade tungsten related to quartz veining in phyllite.

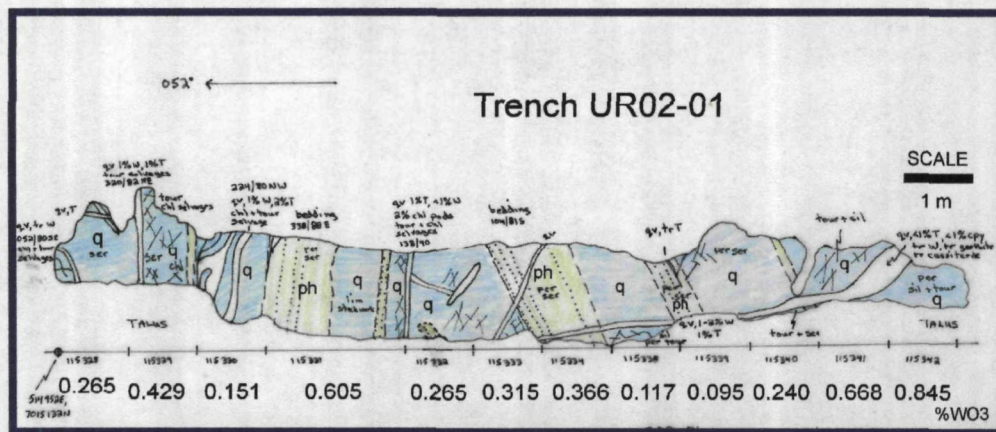


Figure 13. Trench UR02-01 and WO3 assays.

Moderate to strong tungsten mineralization in a section of predominant tourmalinized quartzite, local stockwork and quartz veining.

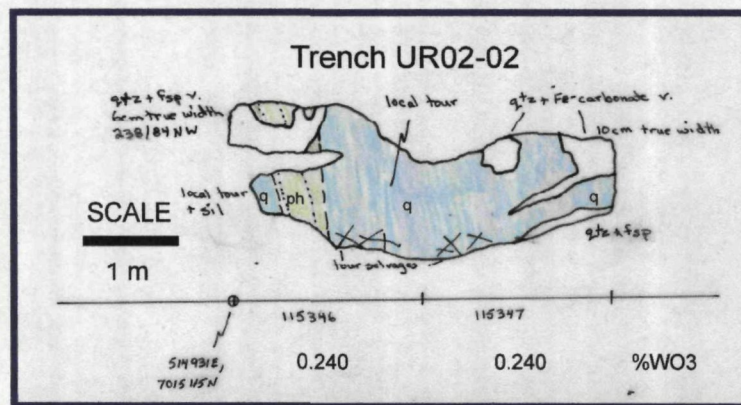


Figure 14. Trench UR02-02 and WO3 assays.

Moderate tungsten values in weakly tourmalinized and stockwork quartzite.

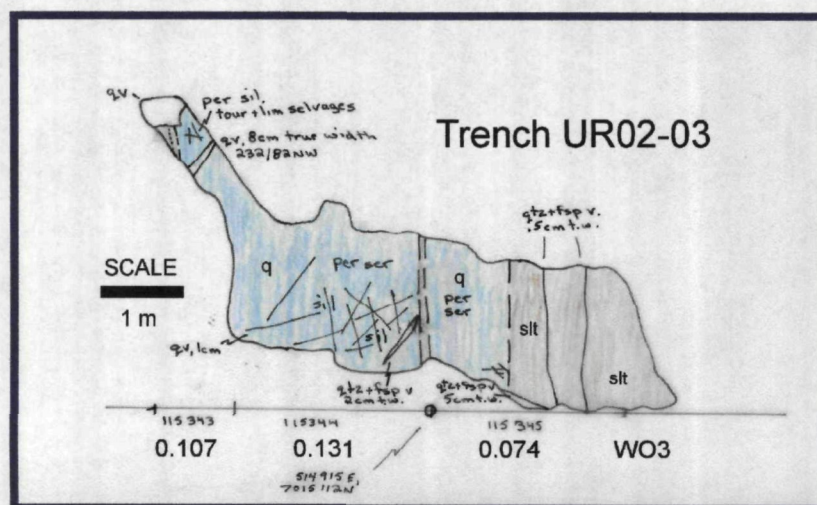


Figure 15. Trench UR02-03 and WO3 assays.

Low tungsten values in light stockwork and tourmalinized quartzite.

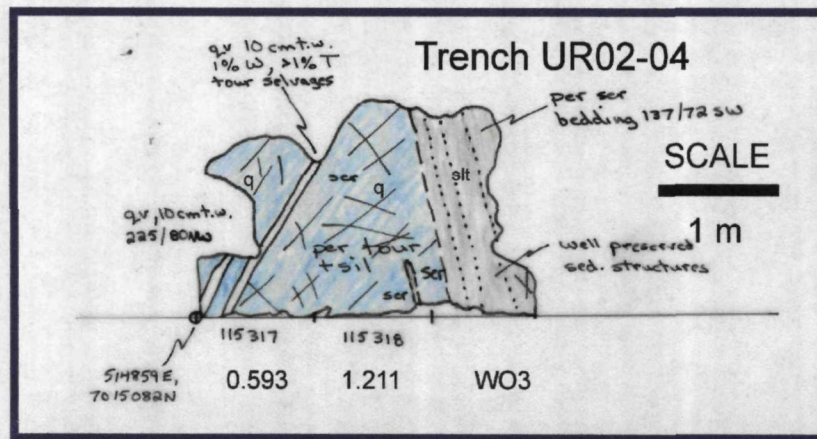


Figure 16. Trench UR02-04 and WO3 assays.

Moderate to high tungsten values in quartzite with tourmalinization and stockwork with wolframite-bearing quartz veins.

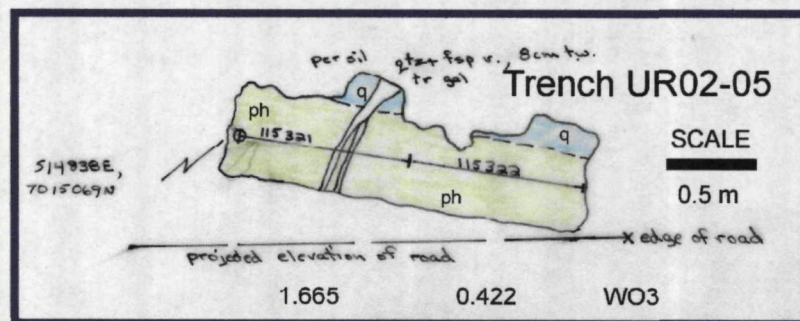


Figure 17. Trench UR02-05 and WO3 assays.

High to moderate tungsten values in siltstone, high grades probably related to quartz veining.

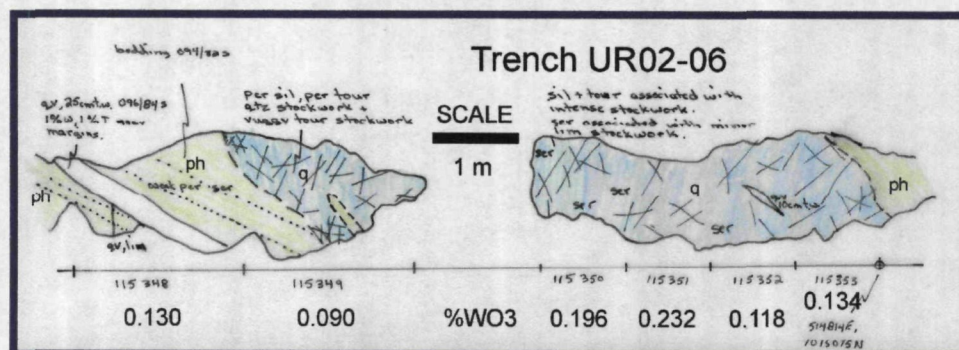


Figure 18. Trench UR02-06 and WO3 assays.

Low tungsten values despite reasonably strong stockwork in tourmalinized quartzite.

Continuation to east from 01A. Moderate values in siltstone related to quartz veining. On eastern end (right side) moderate value in tourmalinized and stockwork quartzite but high value in siltstone with quartz vein.

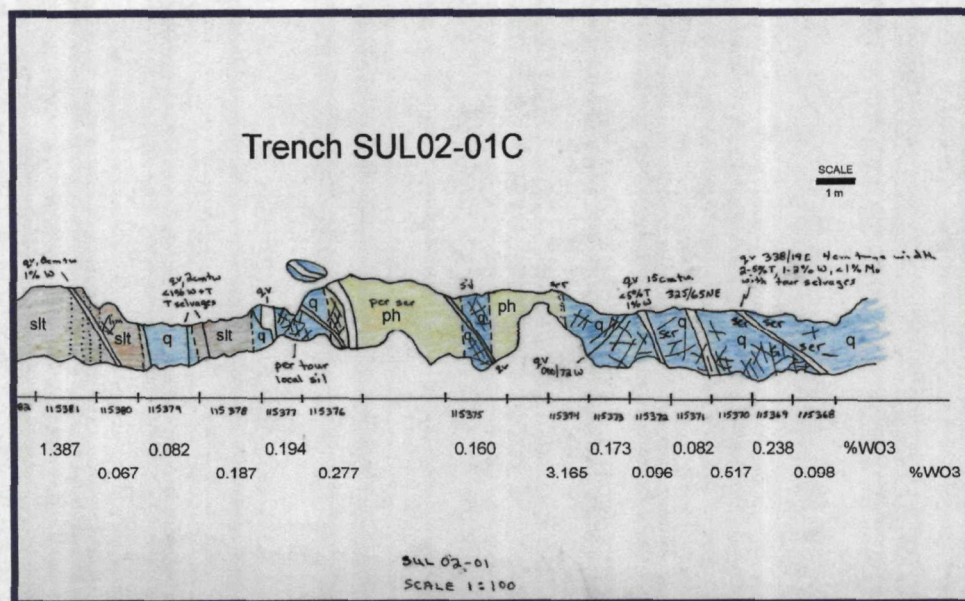


Figure 22. Trench SUL02-01C and WO3 assays.

Continuation to east from trench 01B. Moderate values in stockwork and tourmalinized quartzite at east end with very high value in quartzite and phyllite with minor quartz veining and stockwork.

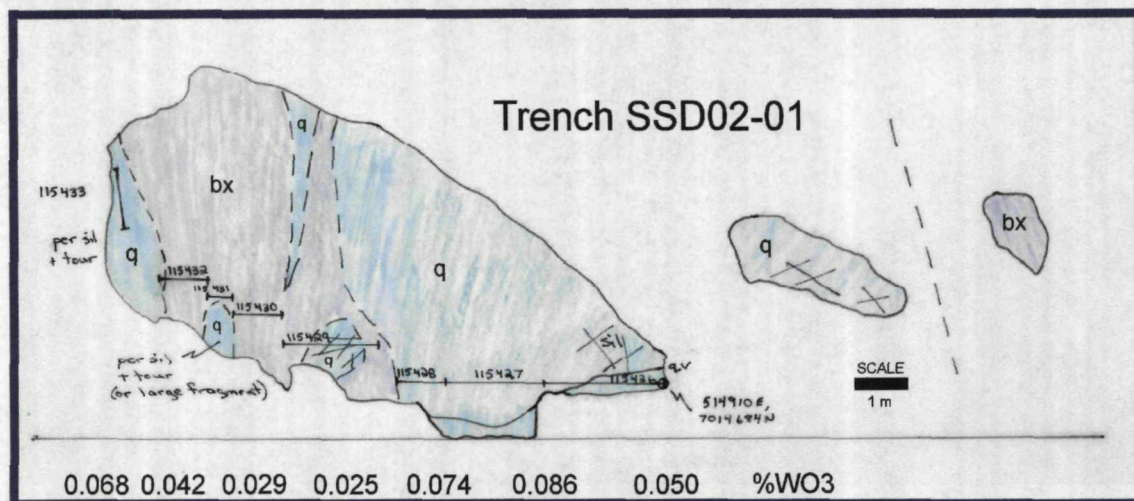


Figure 23. Trench SSD02-01 and WO3 assays.

Generally low values in brecciated quartzite down slope to south from South Upper Levels trench (SUL02 trenches).

Discussion

Kalzas is a large, porphyry-style stockwork and sheeted vein tungsten deposit with accessory values in tin and silver. During the period 1981 to 1984, Union Carbide completed surface exploration, including prospecting, geological mapping, soil and rock geochemistry and an airborne magnetometer survey. Union Carbide subsequently carried out a program of road building and trenching over the mineralized zone and drilled two core holes. Union Carbide dropped its option on the property in 1984 as tungsten prices declined dramatically.

Union Carbide's exploration program, combined with Lynch's (1985) M.Sc. thesis on the property, demonstrated that Kalzas was a significant new world class tungsten discovery. Union Carbide showed the size potential to be in the hundreds of millions of tonnes, or a smaller tonnage at higher grades. However, the estimation of average grade proved to be a difficult issue for Union Carbide because of the perceived nugget effect created by the coarse wolframite mineralization in the sheeted veins. Average grades reported by Union Carbide are in the range of 0.2% WO₃ to 0.3% WO₃, typically over widths of 50 to 75 metres. It appears that the Union Carbide work was focused on defining a resource of plus one hundred million tonnes.

Sampling by Copper Ridge in 2001 was directed at confirming the tungsten values and assessing the potential for economic values of tantalum mineralization. During the program, no tantalum minerals were identified and, subsequently, analysis both by wet chemical methods and by neutron activation failed to detect significant tantalum values. The tungsten sampling program, however, demonstrated a significant increase over the Union Carbide results. The Copper Ridge averages are in the range of 0.3% WO₃ to 0.5% WO₃ over widths up to 70 metres. The results of the Copper Ridge sampling suggest that the nugget effect issue may not be so great a concern. Very little of the Copper Ridge sampling was actually in sheeted veins, but more in stockwork and disseminated mineralization.

Copper Ridge's 2002 sampling program focused on the higher grade tungsten zones identified during the 2001 program. In order to provide a better estimate of grade, sample intervals were reduced to 1 m and sample size increased to 5 to 7 kg. Sampled areas were mapped in detail.

Results of the 2002 program have confirmed the potential for defining a small, high grade resource. In general, however, the detailed sampling demonstrates that the highest grades are over relatively narrow widths, ranging from 1 to 6 m. The highest, plus 1% WO₃ results are typically along zones dominated by tourmalinized quartzite with stockwork veining and usually one or more narrow quartz veins with visible wolframite (see 115364 – Figure 10; 115318 – Figure 16). In other cases, high grade values occur in less altered phyllite or siltstone cut by wolframite-bearing quartz veins (see 115367 – Figure 11; 115321 – Figure 17; 115381 – Figure 22). Finally, some of the highest values are in zones with no obvious quartz veining (see 115398 – Figure 21; 115382 – Figure 21; 115394 – Figure 22).

These results suggest the potential to define one or more bodies of mineralization that range from 1 to 6 m in thickness and with lateral dimensions that could be in the range of tens to hundreds of m. Although the main control on mineralization appears to be stratigraphic, with quartzite being an important host unit, there is not enough outcrop exposure along strike to confirm the lateral continuity of the high grade zones. Core drilling will be required to examine the continuity of high grade zones at depth and along strike.

The other important issue that remains to be resolved is the influence of nugget effect on sampling. The rare extremely high values of several percent WO₃ may be the result of coarse wolframite crystals in the sample. It is recommended that in any core drilling program, the largest possible drill core be used to ensure the most representative sample possible. For future surface

sampling, now that a number of high grade intervals have been localized, it is recommended that outcrop or trench areas be cleaned up, perhaps with drilling and blasting, and that large channel samples be collected.

Should future sampling confirm results comparable to those obtained from the current program, including continuity along strike and at depth, there is a good potential to define a sufficient tonnage of near surface, open pit mineable mineralization that would justify a small, high grade mining operation.

Economic Potential

Union Carbide identified the broad, sheeted vein and stockwork complex over 1,000 m in length and over 500 m in width. The potential within this zone is to develop a deposit in the hundreds of millions of tonnes in size. Sampling suggests the grade of such a deposit could be in excess of 0.1% WO₃. This would rank Kalzas as one of the largest tungsten deposits in the world.

Copper Ridge's sampling and evaluation over the past two years suggests that there is a realistic possibility of defining a resource on the order of several millions of tonnes of surface mineable tungsten mineralization at a grade of about 1.0% WO₃ or perhaps even better. This mineralization occurs in higher grade zones on the order of one to six m wide, of undetermined strike length and dip extension. Mineralized zones trend west-northwest, parallel to the main structural grain of the deposit and could extend for hundreds of meters. Drilling will be required to demonstrate grade continuity within these higher grade zones both at depth and along strike from sampled surface exposures.

A preliminary economic analysis carried out by Copper Ridge in 2001 suggested that an open pit mining operation, on the order of 5,000 tonnes per day at a grade of about 0.5% WO₃ has the potential to provide an attractive rate of return. The more recent sampling suggests a smaller, higher grade deposit might be a more realistic and attractive target.

CONCLUSIONS

Kalzas is a world-class tungsten deposit located in central Yukon Territory, 70 km southeast of the town of Mayo. The deposit is a porphyry-style sheeted vein and stockwork deposit consisting of wolframite in quartz veins, stockworks and disseminations. Alteration reflects the presence of an intrusive at depth and is greisen-like with a potassic core grading out to a quartz-tourmaline zone and finally an outer quartz-sericite-pyrite zone. Tungsten mineralization is restricted to the inner two zones, with tin mineralization and scattered high silver values within and around the periphery of the tungsten zone.

During the period 1981 to 1984, the property was under option to Union Carbide Corporation. Surface exploration work during this period showed the potential for a plus one hundred million tonne deposit of low grade (0.1% to 0.2% WO₃) tungsten mineralization.

In July 2001, Copper Ridge acquired an option on the property. Field work by Copper Ridge confirmed the presence of higher grade zones within the broad area of wolframite mineralization, with widths up to 70 m and grades in the 0.3% to plus 0.5% WO₃ range. The Copper Ridge work called into question some of the earlier Union Carbide assay results and suggested that the Union Carbide grades may have understated the actual tungsten values considerably.

The 2001 program demonstrated that smaller, higher grade intervals are more important in carrying the grade of the deposit. Although the sampling suggests the potential to define very high tungsten grades over narrow intervals, drilling will be required to confirm continuity of these zones along strike and at depth. Sampling methodology and analysis remain concerns in terms of potential nugget effect due to the local coarse grained nature of the wolframite and the typical difficulties in obtaining accurate tungsten assays. Surface sampling should emphasize large samples over narrow widths and drilling should use core with the largest practical diameter possible.

RECOMMENDATIONS

A Phase I program of shallow, large diameter core drill holes is recommended to provide a three dimensional picture of tungsten mineralization and grades within the areas of higher grade tungsten values as defined by surface work. A program of twelve to fifteen holes of HQ core (approximately 6.35 cm diameter) would be required, with an average depth of 50 to 70 m, for a total of 1,000 m of drilling.

If this program successfully confirms grades and depth continuity of the tungsten mineralization, it would lead to a pre-feasibility study that would include additional drilling to define tonnage and grade and a preliminary examination of engineering and metallurgical issues.

The proposed budget is shown in Appendix "B".

LIST OF REFERENCES

Carlson, Gerald G, 2001: Kalzas Project, Report on 2001 Field Program; Internal report prepared for Copper Ridge Explorations Inc., October 25, 2001, 24 p and appendices.

Forster, C.N., 1981: 1981 Final Report for the Kalzas Wolframite Prospect; Internal Union Carbide report, 14 p.

Forster, C.N., 1984: Kalzas Tungsten, Tin Property, Final Report of 1983 Program; Internal Union Carbide Report, 20 p.

Forster, C.N., 1985: 1984 Kalzas Report; Internal Union Carbide Report, 8 p.

Lynch, Joseph Vincent Gregory, 1985: Mineralization and Alteration Zonation of the Kalzas Wolframite Vein Deposit, Yukon Territory, Canada; M.Sc. Thesis, Washington State University, 123 p.

Roots, C.F., 1997: Geology of the Mayo Map Area, Yukon Territory (105M); Bulletin 7, Exploration and Geological Services Division, Yukon Region, Indian and Northern Affairs Canada.

APPENDIX "A"

PROPERTY

<u>Claim Name</u>	<u>Grant Number</u>
PAT	YA38160
BLACKIE	YA38161
DAVID	YA38162
WOLF 1 - 2	YA42732-YA42733
WOLF 4	YA42735
WOLF 7	YB03688
WOLF 9	YB03690

APPENDIX "B"

Proposed Budget

Mobilization/Demob Fixed Wing	\$6,400.00
Fixed Wing, 24 trips Mayo-Kalzas @ \$800ea	\$19,200.00
Alkan Air 206, 3 return trips Whse	\$3,000.00
Helicopter 20 hrs @ \$1000	\$20,000.00
Core Drilling 1000 m @ \$100/m	\$100,000.00
Vehicle rental	\$1,500.00
Fuel Diesel/ JP4	\$10,000.00
Analyses - 1000 samples @ \$15 ea.	\$15,000.00
Camp & food	\$11,700.00
Report & Drafting	\$2,000.00
Assessment Fees	\$200.00
Supplies and shipping	\$1,000.00
Sat Phone	\$3,000.00
Geologist	\$9,600.00
Geotechnician	\$6,000.00
Contingency @ 10%	\$20,000.00
TOTAL	<u>\$228,600.00</u>

No.				m	m	m	pct	m	pct	ppb	ppm	ppm
115369	15067	15051	S U Levels	1	2	1.0	0.238	6.0	0.712	33	258.2	189.8
115370	15066	15053	S U Levels	2	3	1.0	0.517	2.0	0.378	19	157.2	305.6
115371	15066	15052	S U Levels	3	4	1.0	0.082			9	149.8	65.3
115372	15065	15051	S U Levels	4	5	1.0	0.096			10	327.9	106.1
115373	15065	15049	S U Levels	5	6	1.0	0.173	2.0	1.669	14	255.5	38.1
115374	15068	15048	S U Levels	6	7	1.0	3.165			25	419.8	346.5
115376	15062	15048	S U Levels	0	1.5	1.5	0.277			21	231.6	290.7
115381	15058	15039	S U Levels	6.5	8	1.5	1.387	2.5	1.266	16	34.5	165.2
115382	15057	15038	S U Levels	8	9	1.0	1.084			23	130.8	112.4
115383	15056	15036	S U Levels	9	10.5	1.5	0.026			2	17.4	3
115385	15054	15036	S U Levels	11.5	12.5	1.0	0.328			12	380	128.7
115393	15046	15029	S U Levels	22	23	1.0	0.429	15.0	0.597	3	186.1	74.3
115394	15046	15028	S U Levels	23	24	1.0	0.391			10	206.2	672.6
115395	15045	15029	S U Levels	24	25	1.0	0.290			16	126.6	246.1
115396	15045	15028	S U Levels	25	26	1.0	0.277			42	287.8	233.7
115397	15043	15027	S U Levels	26	27	1.0	0.170			< 2	389.5	39.8
115398	15041	15028	S U Levels	27	28	1.0	4.086	2.0	2.522	14	476.3	319.2
115399	15043	15025	S U Levels	28	29	1.0	0.958	6.0	1.219	2	542.7	89
115400	15041	15026	S U Levels	29	30	1.0	0.870			2	403.9	37.9
115401	15038	15025	S U Levels	30	31.5	1.5	0.277			5	120.2	56.3
115402	15038	15025	S U Levels	31.5	33	1.5	0.656			8	126	75
115403	15038	15023	S U Levels	33	34.5	1.5	0.199			10	136.5	28.8
115404	15036	15022	S U Levels	34.5	36	1.5	0.144			11	197.5	117.7
115405	15036	15021	S U Levels	36	37	1.0	0.202			6	249.7	47.9
115407	15031	15017	S U Levels	1	2	1.0	0.240	5.0	0.256	6	290	73
115408	15030	15017	S U Levels	2	3	1.0	0.593	2.0	0.416	6	334.1	72.9
115409	15029	15017	S U Levels	3	4	1.0	0.145			5	221.6	14.4
115410	15029	15016	S U Levels	4	5	1.0	0.112			9	217.9	36.5
115411	15027	15016	S U Levels	5	6	1.0	0.192			< 2	164.3	5.8
115422	14842	15080	Upper Levels			0.4	3.165	0.4	3.165	65	210.1	1422.5
115423	14803	15068	Upper Levels			0.5	0.189			13	100.2	93.7
115445			Dup 115318 10 cm wide				1.122				597.3	178.7
115446	14676	15127	qtz vn 15 cm wide				0.706				114.6	138.5
115447	14675	15130	qtz vn 4 cm wide qtz				2.673				68.1	873.3
115448	14637	15077	vn				1.198				62.6	297.7

APPENDIX "D"

Assay Certificates

GEOCHEMICAL ANALYSIS CERTIFICATE

Copper Ridge Exploration Inc. File # A203611 Page 1 (a)

500 - 625 Howe St., Vancouver BC V6C 2T6 Submitted by: Gerry Carlson

SAMPLE#	Ba ppm	Co ppm	Cs ppm	Ga ppm	Hf ppm	Nb ppm	Rb ppm	Sn ppm	Sr ppm	Ta ppm	Th ppm	U ppm	V ppm	W ppm	Zr ppm	Y ppm	La ppm	Ce ppm	Pr ppm	Nd ppm	Sm ppm	Eu ppm	Gd ppm	Tb ppm	Dy ppm	Ho ppm	Er ppm	Tm ppm	Yb ppm	Lu ppm
C 115308	240.2	3.7	7.5	15.6	5.3	7.3	144.6	16	24.9	.6	11.9	1.9	40	3595.4	196.0	12.8	20.5	41.5	4.50	15.8	3.0	.50	2.06	.32	2.11	.44	1.35	.18	1.30	.18
C 115309	80.2	3.6	7.8	10.6	6.2	6.1	94.7	83	20.8	.4	9.9	2.1	19	3142.6	218.8	8.8	12.8	26.4	2.76	9.9	2.1	.41	1.42	.21	1.35	.31	1.07	.18	1.11	.17
C 115310	181.7	2.5	10.6	11.5	6.4	10.1	164.3	26	19.6	.5	11.2	2.3	28	4744.1	241.6	11.5	19.1	37.7	3.82	14.5	3.0	.47	2.02	.31	1.89	.35	1.20	.18	1.29	.19
C 115311	205.8	2.7	12.8	14.6	6.6	15.1	172.2	24	27.2	.8	10.3	2.4	37	6980.1	235.1	14.8	23.4	48.4	4.77	18.6	3.2	.76	2.56	.38	2.26	.52	1.34	.20	1.62	.24
C 115312	337.8	2.7	21.9	17.3	5.6	10.4	210.7	31	27.6	.9	11.0	2.9	81	546.9	206.9	21.3	33.6	69.0	7.04	26.0	4.9	.80	4.49	.62	3.86	.74	2.14	.27	1.97	.29
C 115313	79.4	8.9	4.9	24.1	5.3	15.1	58.8	22	50.6	.9	8.9	2.5	66	8681.9	174.5	17.9	29.5	57.8	6.21	24.5	4.1	.69	3.71	.58	2.94	.61	1.77	.27	1.93	.26
C 115314	134.5	5.9	6.3	19.5	2.9	7.5	77.9	23	34.1	.6	9.7	2.0	54	2303.3	97.4	11.7	25.1	48.9	5.15	19.0	3.6	.61	2.66	.32	1.76	.38	1.05	.15	1.08	.16
C 115315	83.3	3.2	8.1	8.7	4.6	5.2	78.2	11	21.3	.3	7.3	2.1	20	777.2	177.9	11.3	17.2	37.9	3.63	13.8	2.6	.51	2.28	.34	1.79	.33	.98	.15	1.02	.15
C 115316	425.2	7.6	41.9	25.9	5.6	13.4	177.4	24	47.7	.9	15.9	3.8	74	1214.5	202.5	19.8	41.8	86.3	8.99	32.9	5.9	1.02	4.64	.62	3.43	.73	2.04	.25	2.22	.26
C 115317	82.7	4.2	3.3	14.7	6.1	23.7	70.3	20	20.6	1.3	8.6	2.3	26	5311.0	219.3	10.6	16.8	36.8	3.78	14.6	2.8	.46	2.13	.27	1.75	.35	1.05	.16	1.25	.19
C 115318	33.3	2.2	2.1	7.1	2.5	23.4	18.2	11	11.8	1.1	4.1	1.5	11	10493.9	96.2	5.7	8.8	18.4	1.94	6.5	1.1	.27	1.21	.17	.93	.22	.71	.09	1.03	.09
C 115319	240.6	3.7	12.2	16.9	4.9	11.3	194.3	42	21.2	.8	8.2	2.6	43	8874.0	172.5	14.3	23.2	46.2	5.04	17.9	3.5	.60	2.93	.39	2.33	.44	1.41	.19	1.44	.27
C 115320	377.2	4.8	23.6	23.2	4.3	14.3	332.8	41	36.9	1.0	15.0	2.5	91	684.7	146.7	23.7	42.7	84.0	8.80	34.5	5.7	1.19	4.99	.70	4.10	.83	2.27	.36	2.30	.32
RE C 115320	389.7	4.7	24.7	25.6	3.8	14.1	331.2	38	33.3	.9	14.5	3.0	91	657.4	142.6	22.9	44.1	83.5	9.02	32.6	6.4	1.03	4.74	.72	4.17	.82	2.47	.33	2.30	.33
C 115321	119.9	4.8	5.8	13.1	1.5	9.9	66.7	18	25.3	.6	6.9	2.0	30	14342.7	61.7	12.3	19.8	37.6	4.18	16.6	2.8	.53	2.64	.42	2.21	.42	1.19	.18	1.21	.14
C 115322	169.6	8.9	4.2	35.7	2.9	13.9	79.6	294	49.3	.9	13.6	3.6	84	3349.3	103.0	13.4	38.5	73.4	7.74	29.4	4.9	.88	3.21	.45	2.45	.55	1.51	.17	1.78	.22
C 115323	141.6	5.1	11.1	17.0	9.0	7.8	163.4	35	25.9	.5	12.2	2.2	35	1294.3	337.2	15.2	23.8	49.6	5.22	19.6	3.2	.58	2.84	.40	2.39	.45	1.34	.22	1.54	.24
C 115324	507.9	13.4	17.6	30.5	5.5	12.5	239.4	28	60.5	1.0	18.4	3.9	92	954.0	217.5	23.2	49.2	95.9	10.19	37.3	7.3	1.34	4.95	.70	4.00	.81	2.41	.27	2.32	.35
C 115325	754.8	5.2	26.9	25.9	4.2	15.0	392.3	29	47.4	1.4	18.2	4.2	97	378.7	149.8	25.9	33.3	67.2	7.32	27.0	5.2	.98	4.37	.70	4.27	.87	2.60	.34	2.72	.37
C 115326	518.1	7.1	21.2	24.4	3.5	13.7	256.5	32	36.6	1.2	14.9	3.9	94	1179.7	126.9	24.2	32.2	67.0	6.97	27.1	4.9	.81	4.18	.65	4.07	.87	2.44	.34	2.54	.36
C 115327	302.1	6.7	21.9	24.2	5.0	15.1	251.8	43	44.6	1.3	13.1	4.5	125	891.9	193.9	23.6	32.2	64.7	6.66	23.7	5.3	.86	4.39	.68	3.93	.88	2.38	.34	2.50	.38
C 115328	178.5	5.8	16.0	15.2	6.5	52.4	222.1	35	16.1	3.1	10.1	2.4	37	2261.4	231.1	11.6	18.4	39.2	4.05	15.3	2.7	.48	2.52	.31	1.83	.37	1.12	.18	1.23	.22
C 115329	188.2	7.3	13.5	24.0	7.2	19.4	196.8	43	25.1	1.4	15.3	3.0	59	3500.5	264.6	16.7	32.1	63.8	6.92	25.4	5.0	.81	3.41	.50	2.58	.55	1.82	.28	2.08	.31
C 115330	175.3	2.0	12.8	11.1	4.7	9.2	154.3	17	11.9	.8	8.6	2.6	31	1196.1	177.6	9.3	15.4	32.9	3.32	12.1	2.6	.43	1.76	.29	1.60	.31	1.01	.14	1.10	.14
C 115331	401.8	2.7	24.1	21.4	7.5	34.6	313.6	22	21.3	2.3	16.3	4.1	62	5459.8	285.9	21.1	31.8	67.5	7.06	25.8	5.0	.86	3.84	.60	3.09	.77	2.15	.30	2.17	.34
C 115332	140.5	5.0	11.3	18.8	5.7	16.6	155.2	29	26.4	1.1	11.1	2.7	47	2281.8	219.2	13.3	28.0	58.1	5.99	23.0	4.0	.75	2.97	.41	2.09	.40	1.22	.22	1.31	.21
C 115333	273.9	2.6	19.7	17.9	7.6	17.3	268.9	28	24.3	1.1	13.8	3.5	51	2690.8	259.1	16.4	31.0	63.3	6.45	24.3	5.1	.70	3.42	.51	2.53	.58	1.63	.25	1.91	.27
C 115334	211.9	3.2	13.7	16.8	5.9	26.2	172.6	22	27.4	1.8	11.0	2.7	47	2776.2	223.3	13.5	24.6	49.6	5.29	20.3	3.6	.74	2.82	.39	2.30	.44	1.47	.20	1.63	.24
C 115335	510.6	3.1	28.9	22.3	6.2	13.3	308.5	21	39.8	1.0	17.2	3.7	75	928.2	222.1	21.2	38.8	78.0	8.31	30.8	5.3	1.05	4.27	.61	3.64	.74	2.11	.36	2.09	.32
C 115336	700.7	4.0	18.8	28.5	4.9	13.8	276.6	16	56.1	.8	14.9	3.8	93	752.4	177.3	21.0	45.6	92.6	9.64	37.0	6.1	1.15	4.95	.62	3.42	.74	2.09	.31	2.00	.33
C 115337	434.6	2.8	26.1	19.4	6.6	10.6	258.6	20	33.6	.6	13.9	3.2	63	193.1	248.2	20.7	26.5	53.3	5.48	19.8	4.2	.75	3.40	.59	3.37	.66	2.05	.27	1.86	.29
C 115338	242.4	5.1	12.5	20.7	4.3	13.9	177.6	26	25.2	.9	11.1	2.6	62	1465.7	162.5	12.8	32.0	64.6	6.62	24.7	4.5	.87	2.74	.44	2.10	.50	1.25	.20	1.51	.21
STANDARD SO-17	425.1	18.5	3.7	18.6	12.6	24.5	21.9	10	303.9	4.4	11.8	10.9	126	11.0	351.4	27.3	11.0	23.5	2.92	14.2	3.2	.96	3.70	.65	4.32	.92	2.80	.43	2.91	.44

GROUP 4B - REE - LiBO2 FUSION, ICP/MS FINISHED.

- SAMPLE TYPE: ROCK R150 60C

Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: SEP 5 2002 DATE REPORT MAILED: Sept 19/02 SIGNED BY: C. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

Assay recommend for W > 2000 ppm

All results are considered the confidential property of the client. Acme assumes the liabilities for actual cost of the analysis only.

Data FA



SAMPLE#	Ba ppm	Co ppm	Cs ppm	Ga ppm	Hf ppm	Nb ppm	Rb ppm	Sn ppm	Sr ppm	Ta ppm	Th ppm	U ppm	V ppm	W ppm	Zr ppm	Y ppm	La ppm	Ce ppm	Pr ppm	Nd ppm	Sm ppm	Eu ppm	Gd ppm	Tb ppm	Dy ppm	Ho ppm	Er ppm	Tm ppm	Yb ppm	Lu ppm
C 115339	400.2	5.8	17.9	24.7	4.9	17.4	298.0	35	27.8	1.4	16.4	3.6	87	1348.2	193.8	18.7	45.7	85.0	9.00	33.3	5.5	.91	3.87	.59	3.32	.68	2.01	.32	1.91	.32
C 115340	241.3	4.7	10.7	22.5	6.1	22.9	199.6	37	29.1	1.7	11.7	4.1	60	2214.2	214.9	16.7	40.1	74.5	8.54	34.7	5.6	1.18	4.17	.61	3.36	.59	1.57	.24	1.84	.26
C 115341	211.2	6.0	11.0	20.9	4.7	49.9	160.1	602	26.5	3.5	11.9	2.4	58	5562.5	169.0	14.2	34.9	66.4	7.03	26.3	4.3	.83	3.06	.41	2.64	.50	1.55	.22	1.68	.23
C 115342	96.8	3.5	11.0	17.8	6.8	47.5	188.2	44	21.3	2.7	9.8	3.6	36	7605.7	226.5	10.5	16.6	32.5	3.29	12.6	2.2	.39	1.86	.29	1.78	.35	1.10	.18	1.26	.23
C 115343	268.4	2.6	11.1	12.2	4.9	13.3	182.2	26	18.6	1.0	8.4	2.2	34	850.4	189.6	12.2	21.4	42.3	4.31	17.6	3.0	.49	2.56	.38	2.14	.41	1.08	.19	1.05	.18
C 115344	337.4	2.8	12.8	11.8	5.9	17.9	228.7	25	21.7	1.4	11.5	2.7	34	1040.8	236.6	12.4	23.3	47.9	4.79	18.2	3.2	.53	2.39	.36	1.93	.41	1.35	.15	1.26	.19
C 115345	590.9	2.3	25.4	22.9	6.8	14.9	369.2	27	24.7	1.2	14.1	3.3	67	589.2	229.4	20.7	38.7	74.2	7.52	29.0	5.4	.90	4.03	.65	3.79	.73	2.07	.33	1.90	.30
C 115346	421.6	2.9	24.6	16.8	6.5	30.5	287.8	54	34.7	2.7	10.2	2.4	36	2043.7	231.3	12.1	24.5	48.7	4.99	19.6	3.1	.58	2.24	.39	2.29	.43	1.27	.20	1.47	.22
C 115347	400.8	2.8	18.5	15.4	7.1	23.4	289.9	22	27.6	1.9	8.6	1.8	33	2043.4	239.9	13.0	22.9	45.3	4.68	17.5	2.9	.52	2.52	.34	2.13	.45	1.31	.19	1.37	.24
C 115348	656.3	5.3	18.4	29.2	3.7	18.3	320.8	168	57.9	1.4	20.4	4.3	110	1028.9	118.9	27.8	62.4	117.9	12.68	48.1	8.3	1.38	5.79	.89	5.06	.96	2.81	.40	2.29	.37
C 115349	169.3	7.6	6.8	27.3	6.0	8.5	123.6	74	45.3	.7	11.8	2.4	55	715.9	220.7	13.5	31.8	59.3	6.36	23.1	3.9	.68	2.92	.39	2.17	.42	1.30	.18	1.34	.20
C 115350	314.7	5.8	11.1	25.3	9.0	11.8	231.6	27	39.2	.9	15.9	3.1	60	1550.8	313.2	20.5	40.7	78.6	8.07	30.2	5.1	.88	3.60	.55	3.07	.69	2.06	.29	1.94	.34
RE C 115350	305.9	5.6	10.6	25.8	7.8	11.8	233.2	25	39.5	1.0	15.3	2.5	61	1502.6	291.5	19.8	41.1	77.8	8.10	31.1	5.1	.85	3.30	.54	3.32	.68	2.08	.29	1.95	.32
C 115351	272.4	4.7	12.8	21.8	7.5	12.5	223.7	31	43.4	.9	15.6	2.8	56	1841.9	265.0	16.8	36.1	67.4	7.07	26.9	3.9	.79	3.32	.46	2.80	.54	1.70	.24	1.63	.28
C 115352	66.4	5.6	3.4	17.2	4.9	8.7	70.7	178	32.5	.7	8.0	1.8	35	936.4	163.5	9.0	22.5	42.9	4.38	15.3	2.5	.48	1.91	.30	1.60	.31	.87	.12	.96	.14
C 115353	108.7	4.2	7.7	16.7	5.0	6.7	119.4	62	36.5	.5	9.1	2.3	32	1061.2	178.2	12.7	21.8	40.9	4.28	15.8	2.6	.56	2.43	.37	2.08	.39	1.25	.17	1.03	.19
C 115354	297.9	3.8	11.7	17.0	5.7	8.9	171.9	19	32.0	.7	10.9	2.4	42	3176.8	197.4	13.9	23.0	44.6	4.62	17.3	3.3	.55	2.77	.38	2.37	.53	1.40	.19	1.44	.25
C 115355	201.4	1.6	7.4	11.4	6.6	6.2	128.3	17	22.5	.5	8.8	1.5	30	617.5	229.8	10.7	19.8	40.0	4.01	15.1	2.7	.46	1.90	.33	1.84	.35	1.15	.15	1.19	.15
C 115356	134.2	5.9	6.9	19.8	7.8	7.5	103.8	23	33.9	.7	12.4	3.0	44	539.1	270.9	12.8	29.5	60.6	5.77	22.2	3.6	.59	2.86	.42	2.52	.42	1.37	.20	1.24	.20
C 115357	628.7	4.9	21.7	21.7	7.3	11.8	220.5	35	54.9	1.1	14.1	2.6	66	54.7	241.0	16.9	34.6	63.2	6.78	24.1	4.3	.78	3.10	.50	2.69	.55	1.77	.28	1.69	.26
C 115358	393.8	8.3	12.1	25.1	3.9	11.6	151.2	36	53.1	.9	12.2	3.1	69	3662.4	141.6	16.4	38.2	70.9	7.10	27.9	4.5	.77	3.31	.47	2.89	.59	1.71	.25	1.61	.27
C 115359	426.1	6.3	10.6	26.3	6.1	11.0	125.4	50	60.4	.9	11.9	3.4	63	3089.4	213.7	17.4	36.5	69.5	7.45	27.9	5.0	.91	3.27	.55	3.20	.58	1.87	.28	1.80	.26
C 115360	633.6	4.2	22.0	19.9	3.3	15.3	185.3	23	51.3	1.0	12.4	3.0	72	5569.4	115.8	18.0	44.6	81.5	8.65	32.2	5.3	1.02	3.72	.54	3.14	.65	1.97	.29	1.94	.29
C 115361	37.2	8.1	2.3	25.8	7.3	5.6	24.4	26	40.2	.6	11.4	2.1	44	1073.7	237.0	12.0	27.6	51.5	5.29	20.6	3.7	.57	2.47	.39	1.99	.39	1.26	.18	1.37	.21
C 115362	86.0	6.7	3.3	21.3	5.7	7.8	44.5	120	40.7	.6	8.9	2.4	36	2960.4	214.6	9.8	20.3	38.9	4.02	15.1	2.4	.47	2.20	.33	1.62	.32	1.06	.17	1.11	.17
C 115363	356.9	5.3	7.5	22.0	6.1	8.4	117.7	47	49.6	.8	11.7	2.5	55	670.1	219.0	15.3	35.2	64.6	6.87	25.5	4.2	.80	3.14	.50	2.72	.53	1.47	.22	1.41	.23
C 115364	166.3	6.3	6.6	22.3	4.5	7.1	67.0	72	31.3	.7	10.0	3.0	46	11074.7	155.5	14.3	29.0	53.2	5.63	20.9	3.6	.66	3.03	.45	2.53	.52	1.51	.23	1.61	.25
C 115365	74.3	5.9	3.3	18.2	6.5	5.2	42.3	87	36.8	.5	7.1	2.0	31	1725.4	233.1	10.7	19.0	35.8	3.62	14.1	2.3	.43	2.05	.30	1.66	.36	1.07	.16	1.13	.16
C 115366	152.8	2.6	4.8	9.7	6.9	5.0	83.5	50	24.1	.4	7.4	2.2	18	5139.8	247.0	11.3	18.2	35.0	3.84	13.8	2.2	.50	2.17	.32	1.84	.38	1.27	.17	1.24	.20
C 115367	506.2	3.6	15.7	17.7	4.4	16.1	143.5	22	32.8	1.0	11.4	3.1	61	9549.4	151.5	17.1	30.4	55.3	5.94	20.9	4.3	.83	3.16	.48	2.95	.59	1.78	.24	1.79	.27
C 115368	154.6	1.5	20.0	8.3	5.0	5.5	152.7	19	21.8	.4	5.9	1.2	17	778.3	182.8	8.1	13.3	25.3	2.34	8.9	1.7	.29	1.57	.26	1.29	.26	.78	.13	.74	.14
C 115369	134.7	2.4	16.4	9.6	5.4	4.9	164.1	16	14.7	.4	4.7	1.4	20	1889.2	193.4	9.4	12.4	23.0	2.44	9.4	1.7	.28	1.74	.25	1.35	.28	.93	.14	.86	.13
STANDARD SO-17	416.8	18.6	3.8	19.4	11.9	25.2	23.4	12	310.9	4.5	11.7	11.1	129	11.0	350.5	27.2	11.1	23.4	2.93	12.6	3.3	1.03	3.74	.65	4.25	.94	2.79	.44	2.94	.45

Sample type: ROCK R150 60C. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.



SAMPLE#	Ba ppm	Co ppm	Cs ppm	Ga ppm	Hf ppm	Nb ppm	Rb ppm	Sn ppm	Sr ppm	Ta ppm	Th ppm	U ppm	V ppm	W ppm	Zr ppm	Y ppm	La ppm	Ce ppm	Pr ppm	Nd ppm	Sm ppm	Eu ppm	Gd ppm	Tb ppm	Dy ppm	Ho ppm	Er ppm	Tm ppm	Yb ppm	Lu ppm
C 115370	134.0	1.8	16.4	8.5	5.1	10.2	152.9	26	20.3	.7	5.1	1.3	17	4428.6	181.4	9.1	12.1	22.8	2.20	8.9	1.7	.26	1.69	.28	1.62	.29	.81	.14	.87	.14
C 115371	167.3	1.7	16.4	8.5	6.5	5.0	183.8	21	17.2	.4	5.6	1.1	18	651.0	231.7	8.5	11.9	22.5	2.25	8.7	1.6	.28	1.38	.21	1.33	.27	.72	.13	1.08	.13
C 115372	168.5	1.9	13.9	7.4	5.2	5.1	164.8	20	15.9	.4	5.5	1.6	14	758.9	194.4	8.2	12.9	25.0	2.45	9.3	1.7	.30	1.65	.24	1.34	.24	.65	.13	.93	.11
C 115373	102.5	2.4	12.4	9.9	5.1	4.8	163.4	30	19.7	.3	4.3	1.3	14	1370.2	180.7	7.5	10.2	20.5	1.96	7.3	1.3	.26	1.42	.23	1.26	.21	.66	.13	.94	.11
C 115374	443.1	3.2	33.2	18.4	7.3	25.9	328.3	42	30.7	1.1	11.8	3.6	45	26435.8	250.8	17.5	28.7	54.5	5.51	21.2	3.6	.69	2.49	.48	2.89	.61	1.83	.35	2.53	.35
C 115375	532.7	5.0	19.3	17.9	6.0	10.0	262.1	40	27.8	.8	13.4	3.3	56	1265.9	198.4	17.9	33.8	64.8	7.01	27.2	4.5	.80	3.89	.52	3.19	.61	1.65	.29	1.76	.26
C 115376	355.7	8.4	13.7	23.6	4.6	13.3	187.6	36	41.1	.9	11.8	2.9	57	2466.8	166.4	13.8	33.7	61.6	7.02	26.6	4.5	.78	3.22	.46	2.64	.50	1.37	.25	1.46	.23
C 115377	83.2	2.9	7.3	8.7	4.4	5.4	92.4	23	10.8	.4	6.4	1.8	12	1535.8	157.1	6.8	10.4	21.9	2.25	8.6	1.6	.34	1.66	.22	1.25	.23	.65	.11	.78	.12
C 115378	518.1	6.2	19.0	26.8	5.1	14.9	283.3	46	37.1	1.1	12.9	3.6	71	1479.9	188.3	22.7	40.3	77.7	8.61	32.4	5.7	1.06	4.90	.78	4.11	.78	2.21	.32	2.06	.29
C 115379	737.3	3.8	21.1	25.0	5.7	14.7	315.4	49	49.3	1.2	16.5	4.0	83	653.0	208.7	21.4	61.0	114.0	12.62	45.8	7.6	1.40	5.19	.72	4.14	.75	2.16	.34	2.35	.31
C 115380	526.5	6.4	17.8	24.8	4.7	13.9	237.8	46	63.0	1.2	15.8	2.9	77	532.5	166.2	20.6	41.7	76.4	8.73	32.6	5.4	.99	4.29	.65	3.67	.74	2.00	.32	2.22	.26
RE C 115380	530.6	6.8	17.7	25.6	5.0	15.0	243.4	46	64.7	1.1	14.9	3.1	78	524.1	165.7	20.4	42.2	78.5	8.76	31.4	6.0	1.11	4.12	.68	3.99	.78	1.90	.29	2.15	.29
C 115381	581.2	7.9	34.0	23.1	4.8	33.0	273.6	29	53.8	1.8	16.1	4.5	80	11147.9	148.5	25.7	46.0	87.4	9.78	39.5	6.6	1.24	5.10	.73	4.46	.98	2.62	.47	3.22	.43
C 115382	641.1	4.2	23.8	23.5	5.8	49.5	276.0	20	43.4	2.9	17.3	4.4	74	9154.6	193.3	23.8	43.4	81.5	9.11	34.9	6.1	1.25	4.93	.68	4.21	.86	2.33	.41	2.80	.36
C 115383	551.7	3.1	36.7	16.7	6.6	11.0	250.3	7	27.0	.9	13.2	3.6	53	209.4	237.2	22.8	35.8	71.2	7.87	30.3	5.5	.94	4.20	.74	3.94	.75	2.05	.32	2.02	.28
C 115384	586.2	5.3	15.8	23.7	8.6	11.9	262.2	25	37.0	1.0	16.4	2.8	68	446.0	298.8	18.1	40.1	76.1	8.16	31.2	5.1	.83	3.43	.62	3.05	.64	1.76	.29	2.10	.28
C 115385	125.1	1.5	9.4	6.6	6.3	8.1	121.9	33	10.7	.5	6.7	1.8	11	2704.6	211.8	7.2	11.8	23.1	2.35	8.8	1.8	.33	1.27	.23	1.17	.24	.64	.10	.71	.15
C 115386	724.3	10.6	19.9	25.5	9.1	13.4	325.9	40	46.6	1.1	22.5	3.4	75	499.9	326.3	20.8	48.4	90.1	9.82	36.9	6.3	.90	3.93	.62	3.65	.70	1.89	.30	2.11	.30
C 115387	568.9	2.6	18.1	15.4	7.2	9.2	252.5	20	29.9	.8	14.8	2.2	45	309.0	261.6	16.7	35.3	66.9	7.34	28.4	4.8	.75	3.40	.54	2.75	.55	1.46	.24	1.70	.24
C 115388	373.1	4.2	14.1	17.6	8.0	10.3	252.0	40	25.3	.8	12.7	3.0	41	1435.5	279.4	11.4	25.8	48.0	4.99	19.0	3.5	.55	2.45	.35	2.22	.40	1.19	.19	1.56	.23
C 115389	584.0	3.0	23.2	17.8	7.2	10.1	236.5	18	30.9	.8	13.1	2.8	46	565.7	242.1	19.2	35.5	68.1	7.43	29.5	5.3	.98	3.96	.66	3.34	.63	1.67	.28	1.86	.29
C 115390	870.7	8.4	26.1	32.9	5.5	16.3	320.9	43	72.0	1.4	19.8	3.8	103	1300.2	172.6	27.3	57.1	108.9	11.76	45.9	8.3	1.31	6.09	.98	4.94	.93	2.56	.39	2.79	.35
C 115391	774.2	7.1	30.4	24.7	5.3	14.0	305.9	38	59.7	1.3	18.9	3.8	88	125.9	174.1	23.3	50.2	95.4	10.35	39.7	7.0	1.29	4.98	.80	4.23	.79	2.11	.36	2.33	.32
C 115392	811.2	7.1	31.3	30.3	5.8	14.0	333.2	31	51.3	1.2	17.0	3.9	89	160.4	195.9	24.4	49.5	95.3	10.22	41.6	6.8	1.30	5.23	.83	4.40	.92	2.37	.37	2.61	.35
C 115393	429.7	5.8	18.8	21.9	5.5	12.6	222.9	27	40.1	.9	12.4	3.2	57	3519.6	190.1	19.1	35.9	70.1	7.51	28.7	5.3	1.10	4.11	.61	3.71	.68	1.76	.29	1.85	.27
C 115394	208.6	2.9	13.6	8.5	4.0	9.1	130.2	17	15.4	.6	7.0	1.4	26	2871.8	144.1	10.6	16.4	31.1	3.62	13.8	2.4	.41	1.97	.30	1.99	.37	.96	.14	1.18	.14
C 115395	174.5	14.7	4.3	30.9	4.3	9.8	65.8	26	43.6	.8	13.1	3.3	64	2255.3	144.9	11.5	34.9	64.5	7.19	26.4	4.4	.79	2.83	.44	2.24	.43	1.12	.20	1.20	.19
C 115396	457.5	20.8	10.7	20.4	5.1	12.2	196.8	35	37.7	.9	12.6	3.2	57	2254.5	171.2	17.5	38.5	71.3	8.06	32.3	5.5	1.00	4.99	.63	3.61	.62	1.64	.27	1.83	.25
C 115397	418.2	10.0	16.2	21.3	4.6	10.0	205.2	40	51.1	.8	13.8	3.3	61	1345.3	155.4	16.0	37.0	67.2	7.34	28.2	5.3	.91	3.44	.55	2.98	.59	1.57	.26	1.74	.30
C 115398	329.0	8.1	22.9	21.8	4.0	46.9	228.2	36	33.5	2.1	13.2	4.6	68	27718.6	128.6	27.9	44.2	84.0	9.29	36.3	6.1	1.28	5.35	.83	5.14	1.04	2.98	.54	3.31	.49
C 115399	458.8	7.6	28.0	23.1	4.6	20.0	245.2	26	34.2	1.1	14.3	3.4	69	8909.6	160.3	20.1	41.2	78.2	8.55	33.0	5.4	1.04	3.95	.59	3.66	.72	2.12	.35	2.22	.30
C 115400	230.0	9.0	16.0	14.3	4.5	9.3	150.2	31	24.3	.7	9.6	3.2	36	7152.0	160.4	15.7	24.4	45.6	5.35	20.6	3.9	.77	3.37	.50	2.89	.61	1.56	.28	1.76	.25
STANDARD SO-17	413.2	18.3	3.8	19.1	12.3	25.1	23.6	10	298.7	4.4	11.0	11.1	126	11.0	358.1	27.3	11.0	23.5	2.92	12.9	3.3	1.00	3.79	.64	4.20	.91	2.82	.43	2.79	.45

Sample type: ROCK R150 60C. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.



SAMPLE#	Ba ppm	Co ppm	Cs ppm	Ga ppm	Hf ppm	Nb ppm	Rb ppm	Sn ppm	Sr ppm	Ta ppm	Th ppm	U ppm	V ppm	W ppm	Zr ppm	Y ppm	La ppm	Ce ppm	Pr ppm	Nd ppm	Sm ppm	Eu ppm	Gd ppm	Tb ppm	Dy ppm	Ho ppm	Er ppm	Tm ppm	Yb ppm	Lu ppm
C 115401	366.0	3.9	15.6	19.8	5.8	11.9	234.0	25	32.1	1.0	11.5	4.0	62	2700.3	200.9	18.4	34.8	65.2	7.21	27.7	5.3	.88	3.21	.55	3.18	.64	1.73	.25	1.90	.29
C 115402	429.9	7.3	10.5	24.0	4.3	18.7	209.5	23	34.9	1.2	14.6	3.6	83	6174.2	139.6	22.4	43.0	81.9	8.75	33.4	6.2	1.08	3.68	.65	3.70	.78	2.11	.35	2.23	.33
C 115403	552.2	6.1	25.2	25.3	4.6	13.3	295.8	30	43.1	1.1	15.6	2.5	87	1578.3	165.7	29.4	49.7	95.8	10.49	37.0	7.2	1.19	5.67	.93	5.13	1.01	2.66	.36	2.51	.33
C 115404	364.7	6.0	14.6	23.2	5.7	12.5	261.7	35	42.0	1.0	15.7	3.6	73	1143.0	183.7	20.4	40.5	77.3	8.42	30.5	5.4	1.03	4.19	.67	3.85	.73	2.14	.32	1.92	.32
C 115405	72.1	3.9	6.9	9.3	5.0	4.7	87.3	22	18.0	.3	7.7	1.5	18	1995.5	183.3	10.3	12.4	25.8	2.77	11.2	1.9	.33	1.99	.28	1.87	.33	.91	.15	.89	.15
C 115406	149.0	2.2	10.9	7.8	6.5	4.6	153.9	16	13.1	.4	7.5	1.5	18	844.5	222.7	12.0	13.4	26.9	2.67	9.3	2.4	.35	2.09	.36	1.86	.36	1.05	.13	1.07	.18
C 115407	90.2	3.0	7.0	10.3	6.4	5.7	92.1	26	17.2	.3	4.9	2.0	18	2326.3	202.6	8.8	12.6	25.2	2.59	9.6	1.9	.37	1.65	.30	1.61	.26	.77	.10	.74	.13
C 115408	108.0	2.3	10.6	9.6	5.2	10.3	114.6	20	16.5	.6	6.9	1.9	17	5851.2	189.6	9.8	13.8	28.6	2.69	10.6	1.8	.37	1.80	.31	1.58	.33	.94	.15	.93	.16
C 115409	153.6	1.2	10.9	7.4	5.5	6.5	147.6	11	15.7	.5	8.4	1.5	18	1152.5	214.6	10.6	18.0	36.8	3.55	12.6	2.2	.46	1.75	.28	1.60	.32	.83	.14	.93	.13
C 115410	144.2	5.1	11.6	15.2	5.2	6.5	112.3	16	26.9	.5	11.1	2.3	40	889.0	205.0	12.8	24.4	48.3	4.98	17.9	3.5	.52	2.31	.37	2.34	.41	1.19	.19	1.16	.22
RE C 115410	142.1	4.7	11.0	15.5	5.5	5.7	105.2	15	24.0	.5	9.8	2.8	36	814.0	197.6	11.9	22.9	45.7	4.65	18.1	3.0	.48	2.37	.36	1.95	.41	1.14	.17	1.14	.18
C 115411	468.5	5.4	15.8	25.4	5.9	13.4	290.8	25	34.9	1.0	14.2	4.0	81	1518.9	197.6	21.0	46.5	87.3	9.60	34.3	6.6	.97	4.10	.61	3.76	.76	2.08	.31	2.13	.32
C 115412	405.6	11.7	10.2	38.4	5.7	12.1	233.3	34	56.7	1.0	18.8	4.6	97	696.3	185.4	19.6	52.4	97.6	10.77	39.5	6.3	1.18	4.02	.62	3.62	.66	1.93	.29	1.83	.31
C 115413	369.8	4.9	25.8	17.3	7.8	9.6	311.4	24	22.2	.9	13.8	3.6	50	442.4	266.9	20.7	27.5	54.0	5.70	22.6	4.5	.72	3.48	.56	3.23	.64	1.93	.26	1.78	.29
C 115414	181.7	1.3	17.2	8.7	5.7	6.4	161.2	25	13.4	.6	7.9	1.5	22	1013.2	197.0	12.6	16.6	32.8	3.22	12.4	2.4	.40	2.21	.37	2.12	.40	1.22	.16	1.14	.17
C 115415	499.9	5.2	19.1	21.2	7.0	11.5	239.1	21	43.6	.9	15.0	3.9	64	816.8	228.5	22.9	37.6	73.1	7.86	29.4	5.5	.97	4.25	.66	3.94	.81	2.04	.33	2.17	.38
C 115416	71.9	2.4	5.5	9.0	9.8	5.5	96.6	29	22.4	.5	10.1	1.7	18	337.1	349.9	10.6	16.7	34.9	3.57	13.3	2.6	.37	1.83	.30	1.49	.31	.84	.14	.86	.19
C 115417	1025.0	6.5	21.6	39.0	8.8	23.2	400.3	49	69.3	1.8	29.3	5.5	149	133.8	304.3	35.8	80.5	152.7	16.93	59.8	11.5	1.83	7.64	1.12	6.51	1.17	3.57	.53	3.51	.54
C 115418	114.5	1.9	7.4	9.1	5.8	5.3	99.5	15	19.9	.4	7.0	1.7	18	979.5	199.0	8.4	15.0	31.9	3.29	12.4	2.1	.34	1.72	.25	1.28	.29	.81	.13	.90	.13
C 115419	562.4	2.5	12.5	16.6	6.7	10.1	243.6	18	35.0	.8	11.4	1.7	49	482.3	215.1	16.2	30.9	58.0	6.35	24.9	4.2	.67	3.10	.50	2.77	.55	1.64	.20	1.64	.26
C 115420	248.5	2.9	10.1	11.6	5.7	7.0	128.8	16	34.5	.6	9.2	1.8	31	1042.3	214.8	13.0	22.1	43.1	4.56	17.1	3.2	.52	2.41	.40	2.36	.43	1.27	.18	1.44	.20
C 115421	154.2	3.8	6.8	15.9	6.6	11.7	143.7	927	27.3	.8	10.5	2.2	34	1504.8	258.8	11.8	22.3	43.8	4.66	18.0	3.6	.61	2.33	.36	2.27	.41	1.11	.19	1.29	.20
C 115422	83.3	1.5	10.2	4.7	1.0	17.2	48.1	145	16.1	.8	2.1	2.5	8	21197.3	33.8	11.9	9.1	19.8	2.12	8.1	1.6	.75	1.49	.28	1.76	.42	1.54	.28	2.06	.30
C 115423	68.7	3.9	6.4	13.4	6.5	8.1	103.6	67	38.2	.5	9.2	2.4	26	2558.3	222.3	13.0	19.0	37.5	4.04	15.6	2.9	.45	2.44	.39	2.13	.42	1.24	.17	1.22	.18
C 115424	98.4	3.8	6.2	11.7	6.8	5.9	82.2	18	20.1	.4	6.9	1.5	25	1160.3	219.0	11.8	18.4	38.5	3.91	15.3	2.6	.38	2.08	.33	1.66	.39	1.10	.14	1.21	.19
C 115425	222.4	4.2	11.2	19.3	6.2	9.2	161.4	29	27.7	.7	11.0	3.2	53	861.6	224.3	15.2	28.2	54.0	5.84	22.0	4.0	.58	2.78	.41	2.42	.51	1.45	.21	1.54	.23
C 115426	718.6	1.0	9.5	16.5	13.4	10.4	177.5	64	25.2	.8	26.9	3.6	45	394.0	497.0	17.7	35.1	65.5	6.14	21.2	3.1	.51	2.45	.46	2.81	.57	1.66	.30	1.93	.29
C 115427	225.8	.8	10.4	7.4	6.7	4.7	134.5	33	13.7	.4	5.0	1.5	19	681.6	249.5	7.8	13.1	26.1	2.53	9.4	1.8	.18	1.07	.19	1.04	.25	.81	.13	.86	.15
C 115428	438.7	1.7	9.1	12.0	11.2	8.3	165.3	133	15.3	.7	15.3	3.0	31	584.0	405.2	12.9	15.9	32.2	3.32	12.7	2.3	.38	1.81	.35	2.03	.42	1.28	.20	1.46	.26
C 115429	141.6	1.7	7.6	7.0	5.9	3.5	59.8	24	18.5	.3	8.9	1.1	16	199.8	198.7	6.3	13.0	26.1	2.77	10.2	1.6	.30	1.34	.17	.92	.20	.61	.11	.74	.13
C 115430	181.3	1.5	9.4	6.7	5.8	6.7	82.5	1878	18.5	.4	7.5	2.0	16	228.3	196.8	6.2	9.5	19.5	1.94	7.5	1.4	.20	1.13	.15	.96	.20	.72	.10	.78	.15
C 115431	450.5	1.8	10.7	10.5	9.8	6.4	173.9	42	15.1	.7	10.5	2.2	24	329.9	353.0	10.1	12.3	24.5	2.42	8.9	1.7	.20	1.40	.21	1.26	.30	.97	.17	1.31	.17
STANDARD SO-17	414.7	18.9	4.0	18.8	12.4	24.9	23.0	9	311.9	4.4	10.9	10.9	126	10.0	369.6	27.5	10.9	23.5	2.97	13.3	3.3	1.03	3.81	.66	4.35	.97	2.80	.44	3.00	.45

Sample type: ROCK R150 60C. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.



SAMPLE#	Ba ppm	Co ppm	Cs ppm	Ga ppm	Hf ppm	Nb ppm	Rb ppm	Sn ppm	Sr ppm	Ta ppm	Th ppm	U ppm	V ppm	W ppm	Zr ppm	Y ppm	La ppm	Ce ppm	Pr ppm	Nd ppm	Sm ppm	Eu ppm	Gd ppm	Tb ppm	Dy ppm	Ho ppm	Er ppm	Tm ppm	Yb ppm	Lu ppm
C 115432 *	331.1	1.8	11.4	6.3	6.7	4.5	145.0	16	13.5	.4	7.4	1.8	18	540.2	236.9	7.0	13.2	21.6	2.37	8.6	1.1	.22	.87	.18	1.00	.23	.75	.14	.89	.12
C 115433	140.9	1.9	8.7	5.8	6.1	4.1	104.8	811	12.9	.3	7.0	1.0	15	579.9	203.7	5.0	11.4	18.4	2.17	7.8	1.3	.23	.99	.15	.84	.18	.61	.10	.57	.12
C 115434	464.3	7.4	16.8	15.9	5.3	9.8	171.9	19	85.9	.8	11.2	3.2	47	38.8	178.4	12.4	32.3	60.5	6.29	22.8	3.7	.74	2.07	.37	1.93	.38	1.23	.20	1.24	.16
C 115435	120.1	.8	5.6	5.5	5.7	3.2	62.4	12	29.2	.4	7.3	1.4	13	31.9	201.2	6.7	13.6	29.6	2.78	10.5	1.6	.27	1.19	.17	1.04	.21	.65	.11	.73	.11
C 115436	237.3	1.0	12.3	8.7	6.4	5.6	114.7	70	21.1	.5	6.8	1.5	23	20.9	210.7	8.9	12.3	21.4	2.17	7.9	1.4	.27	1.11	.18	1.27	.28	.90	.12	1.00	.16
C 115437	309.1	1.5	7.4	6.9	6.0	4.1	91.2	13	29.4	.3	8.4	1.3	19	24.0	209.6	8.1	15.9	32.4	3.29	12.3	2.1	.32	1.69	.22	1.29	.28	.79	.13	.81	.14
C 115438	224.2	4.2	9.9	5.9	3.8	3.4	127.8	42	17.6	.4	5.6	1.3	14	32.2	139.4	5.8	13.1	26.3	2.96	11.6	1.7	.32	1.10	.16	.87	.18	.55	.10	.62	.10
RE C 115438	244.4	4.3	10.6	6.2	3.9	3.6	129.5	35	17.0	.3	5.9	1.3	15	34.1	143.7	6.2	13.2	27.2	2.97	11.2	1.7	.29	1.14	.18	1.02	.19	.61	.10	.70	.10
C 115439	280.7	3.6	4.3	8.2	4.5	4.5	53.8	176	23.4	.3	8.4	1.8	15	462.5	159.3	7.0	13.7	24.5	2.56	8.9	1.8	.25	1.19	.20	1.12	.23	.68	.09	.78	.12
C 115440	1080.5	22.8	7.5	7.9	4.8	8.6	102.7	10064	192.2	.3	6.4	1.4	11	1165.8	137.4	8.2	10.0	23.3	2.01	8.1	1.9	.19	1.37	.23	1.19	.25	.74	.11	.81	.12
C 115441	232.1	1.8	9.6	7.6	4.2	4.9	125.6	70	25.3	.5	5.3	.8	16	168.9	148.8	6.7	12.0	24.6	2.40	9.3	1.4	.28	1.12	.17	1.14	.21	.64	.11	.70	.12
C 115442	1437.1	17.4	8.2	5.7	4.5	3.0	108.3	98	26.7	.3	9.0	1.3	11	822.5	147.5	7.3	12.4	24.6	2.52	8.9	1.8	.18	1.45	.20	1.32	.24	.67	.15	.85	.13
C 115443	123.1	1.6	11.0	7.0	4.7	3.7	135.4	32	15.2	.3	4.7	.9	12	888.2	161.9	7.2	9.4	19.0	1.92	6.8	1.3	.21	1.12	.18	1.05	.22	.69	.10	.63	.11
C 115444	530.3	6.0	17.8	26.2	4.9	12.8	210.0	34	58.2	1.0	14.8	3.7	75	337.3	172.5	20.2	43.7	84.1	8.95	33.1	5.6	1.00	4.01	.66	3.59	.69	2.02	.31	2.06	.29
C 115445	161.5	4.1	4.4	14.6	6.0	26.5	103.6	42	25.4	1.4	8.3	2.1	34	6422.3	211.4	11.1	19.6	41.2	4.22	15.9	2.9	.53	2.11	.33	1.71	.39	1.29	.19	1.39	.22
C 115446	91.0	3.9	2.6	9.6	2.7	3.8	52.5	14	17.6	.3	6.1	1.6	20	4630.4	94.0	8.2	10.1	20.1	2.04	7.7	1.4	.23	1.25	.19	1.10	.25	.70	.11	.57	.10
C 115447	57.2	2.5	8.2	6.1	1.3	100.1	21.6	20	17.4	2.7	3.6	4.0	16	47897.0	41.5	11.3	7.9	15.6	1.62	5.6	1.0	.27	.89	.20	1.62	.39	1.50	.29	2.20	.32
C 115448	14.8	3.0	11.5	4.9	1.6	7.2	4.0	14	12.7	.2	2.9	1.3	9	9177.0	56.5	6.2	5.7	14.3	1.43	5.3	1.0	.19	.80	.13	.72	.17	.53	.09	.62	.08
STANDARD SD-17	427.0	20.0	4.1	19.0	12.9	25.2	23.4	12	309.9	4.5	12.4	12.2	130	10.0	359.7	28.4	11.4	24.5	2.97	13.0	3.2	1.02	3.73	.65	4.30	.95	2.80	.44	2.99	.45

Sample type: ROCK R150 60C. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

GEOCHEMICAL ANALYSIS CERTIFICATE

Copper Ridge Exploration Inc. File # A203611 Page 1 (b)

500 - 625 Howe St., Vancouver BC V6C 2T6 Submitted by: Gerry Carlson

SAMPLE#

Mo
ppmCu
ppmPb
ppmZn
ppmNi
ppmAs
ppmCd
ppmSb
ppmBi
ppmAg
ppmAu
ppbHg
ppmTl
ppmAu**
ppbSample
lb

C 115308	5.8	77.6	110.8	116	11.0	136.2	.7	11.7	80.1	.4	6.6	.01	.1	7	14
C 115309	3.3	45.2	35.3	17	2.6	187.8	.1	5.0	70.2	.3	3.4	.01	.3	<2	13
C 115310	8.5	46.5	47.4	22	2.5	109.3	.1	9.7	207.3	.7	10.4	.02	.2	15	17
C 115311	3.6	32.3	19.0	7	4.0	76.6	<.1	3.2	24.4	.4	8.3	.02	.3	8	20
C 115312	5.9	61.6	21.1	11	4.1	63.2	<.1	3.0	7.5	.6	4.0	.04	.3	6	15
C 115313	23.0	28.2	48.4	19	5.2	58.5	.1	6.5	198.2	.5	9.0	<.01	.2	14	19
C 115314	17.5	27.7	46.1	16	3.5	62.0	.1	7.8	171.2	.6	8.1	.03	.2	13	18
C 115315	3.9	29.7	21.1	11	4.9	30.1	<.1	4.8	96.8	.2	4.6	.02	.1	2	17
C 115316	9.4	38.2	18.1	15	4.7	38.4	.1	1.7	140.3	.2	6.0	<.01	.9	5	20
C 115317	20.8	20.9	147.4	6	3.9	885.1	.1	31.2	168.8	2.0	8.1	.05	.2	9	18
C 115318	11.4	12.5	115.0	4	1.9	252.7	.1	25.0	342.8	2.1	6.4	.04	.2	9	16
C 115319	12.3	31.4	65.5	7	4.8	269.2	.1	18.2	449.9	.8	11.5	.02	.3	18	14
C 115320	5.4	69.4	15.5	11	3.3	120.7	<.1	4.8	46.1	.2	10.3	<.01	.3	9	16
RE C 115320	5.3	70.2	16.0	10	3.4	121.2	<.1	4.5	43.6	.2	8.9	.03	.3	15	-
C 115321	12.2	39.0	123.3	13	5.4	140.5	.1	11.8	381.6	1.1	12.3	.02	.2	15	11
C 115322	9.6	67.9	30.2	19	7.7	117.8	.1	4.4	119.7	.2	7.8	.03	.1	13	14
C 115323	6.3	46.8	8.5	15	4.5	94.4	<.1	3.5	62.0	.1	6.8	<.01	.2	5	16
C 115324	8.2	54.7	7.3	18	6.3	65.3	.1	2.1	90.9	1.2	21.1	<.01	3.7	33	19
C 115325	6.0	102.0	4.3	32	8.4	65.9	.1	2.5	5.8	.2	6.7	<.01	.3	7	10
C 115326	7.3	74.9	12.5	35	9.9	79.7	.2	2.2	36.2	.3	4.3	.03	.3	5	16
C 115327	10.1	54.6	8.3	17	9.4	91.2	.1	2.3	41.3	.1	4.0	<.01	.3	<2	13
C 115328	10.9	50.3	32.4	29	8.5	218.3	.3	6.8	66.9	.2	3.8	<.01	.2	2	12
C 115329	13.2	46.9	54.3	13	3.9	255.1	.3	10.5	128.1	.4	6.2	.01	.2	6	13
C 115330	11.8	29.9	23.4	6	6.3	248.0	.1	5.6	47.2	.2	5.7	<.01	.3	4	17
C 115331	11.7	32.2	21.5	10	3.1	79.1	.2	3.4	40.9	.3	2.9	.01	.2	3	18
C 115332	22.9	31.9	52.3	5	5.5	105.7	<.1	9.4	321.9	.7	8.5	.01	.2	2	17
C 115333	12.9	51.9	26.3	12	3.4	124.6	.1	4.8	75.3	.3	5.9	<.01	.3	<2	19
C 115334	21.5	39.6	24.2	12	6.3	92.2	.1	3.9	50.2	.3	5.4	<.01	.2	<2	20
C 115335	14.0	79.4	6.0	13	4.4	97.1	<.1	2.0	29.9	.1	5.2	<.01	.3	7	17
C 115336	13.7	66.2	7.0	13	5.4	73.3	<.1	1.5	34.0	.1	9.3	<.01	.3	6	14
C 115337	4.0	64.0	3.7	14	4.1	57.4	<.1	1.3	20.5	.1	3.6	<.01	.3	3	13
C 115338	10.1	30.6	26.0	5	6.4	74.3	.1	2.7	50.7	.2	4.2	<.01	.2	3	15
STANDARD DS4/AU-R	6.9	122.8	32.1	154	34.7	24.0	5.5	4.7	5.4	.3	27.0	.28	1.1	491	-

GROUP 1DX - 0.50 GM SAMPLE LEACHED WITH 3 ML 2-2-2 HCL-HNO₃-H₂O AT 95 DEG. C FOR ONE HOUR, DILUTED TO 10 ML, ANALYSED BY ICP-MS.
UPPER LIMITS - AG, AU, HG, W = 100 PPM; MO, CO, CD, SB, BI, TH, U & B = 2,000 PPM; CU, PB, ZN, NI, MN, AS, V, LA, CR = 10,000 PPM.
- SAMPLE TYPE: ROCK R150 60C AU** GROUP 3B - 30.00 GM SAMPLE ANALYSIS BY FA/ICP.
Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: SEP 5 2002 DATE REPORT MAILED: Sept 19/02 SIGNED BY: C. L. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS



SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ni ppm	As ppm	Cd ppm	Sb ppm	Bi ppm	Ag ppm	Au ppb	Hg ppm	Tl ppm	Au** ppb	Sample lb
C 115339	12.2	21.3	71.9	53	2.6	86.6	.4	6.1	102.7	.3	4.3	<.01	.2	9	18
C 115340	54.0	21.1	94.3	9	1.6	138.3	<.1	8.9	160.0	.4	7.0	<.01	.1	14	13
C 115341	27.7	31.4	93.7	13	2.3	106.9	.1	9.8	712.2	.5	33.8	.02	.1	44	14
C 115342	40.5	46.1	48.0	21	2.9	129.7	.2	9.5	213.7	.3	12.3	.04	.2	14	13
C 115343	15.0	19.1	31.9	11	2.9	89.9	.1	4.1	119.4	.4	6.0	.01	.2	4	14
C 115344	6.4	12.2	20.6	5	1.3	108.5	.1	2.4	16.8	.5	3.7	.02	.2	6	16
C 115345	13.5	44.3	17.3	13	3.8	93.7	.2	1.7	5.5	.4	2.0	<.01	.4	2	13
C 115346	48.3	33.3	44.7	12	2.6	100.6	.2	4.6	132.9	1.2	6.1	.01	.4	10	14
C 115347	17.1	13.3	37.6	9	2.7	108.7	.1	3.4	47.5	1.0	3.7	<.01	.3	5	14
C 115348	17.3	85.1	47.5	17	2.5	88.1	<.1	8.3	388.6	.3	32.8	.02	.1	34	15
C 115349	5.5	29.9	42.1	11	3.1	103.6	.1	3.9	69.3	.4	5.8	.02	.1	7	15
C 115350	6.1	27.5	34.8	7	1.3	114.7	<.1	3.9	89.0	.2	6.0	<.01	.2	8	10
RE C 115350	6.3	26.7	37.0	6	1.5	118.0	<.1	3.8	93.9	.2	5.6	.01	.2	8	-
C 115351	3.1	20.1	28.7	8	1.9	67.0	<.1	3.9	108.8	.2	3.7	<.01	.2	7	14
C 115352	11.9	20.5	45.4	12	3.8	87.0	.1	5.5	96.0	.1	3.2	<.01	.1	3	14
C 115353	7.5	44.6	22.5	26	5.1	119.1	.1	4.7	48.6	.3	4.9	<.01	1.1	5	14
C 115354	3.3	39.4	9.5	8	4.2	26.6	<.1	1.8	55.4	.3	6.7	.02	.4	11	16
C 115355	4.3	27.6	9.5	4	2.1	32.3	<.1	2.2	41.5	.1	4.7	<.01	.2	6	16
C 115356	4.4	42.4	14.9	8	4.0	49.8	<.1	2.3	29.9	.2	13.6	<.01	.2	14	14
C 115357	3.6	62.7	11.2	14	3.3	17.3	.1	.9	11.0	.2	2.4	<.01	.4	<2	11
C 115358	6.8	60.7	47.8	15	6.4	27.2	.1	2.4	125.5	.4	5.2	<.01	.3	4	16
C 115359	8.7	46.8	40.3	11	3.8	41.5	.1	2.2	87.4	.6	2.5	.01	.7	<2	15
C 115360	2.7	27.2	8.9	12	5.5	22.5	.2	.7	8.1	.3	3.2	<.01	.7	<2	14
C 115361	5.6	36.0	29.4	5	2.8	85.1	.1	2.0	42.3	.2	1.0	<.01	.1	2	12
C 115362	12.0	65.2	44.5	10	4.8	63.5	.1	3.1	69.7	.8	3.6	.01	.9	4	13
C 115363	6.0	47.8	18.5	15	3.6	96.2	.1	2.0	15.6	.2	1.6	.01	.1	2	14
C 115364	11.2	41.0	81.2	18	4.8	137.0	.1	6.9	288.6	.8	12.6	<.01	.2	17	13
C 115365	9.9	40.8	45.8	23	3.4	163.8	.1	4.0	37.0	1.3	11.7	.01	.3	10	13
C 115366	8.8	53.3	29.1	32	5.0	180.7	.2	2.8	19.4	.5	6.7	.01	.5	4	15
C 115367	11.8	57.1	17.7	12	3.5	37.8	.1	1.0	108.4	.4	6.7	<.01	.3	7	14
C 115368	3.8	21.5	15.9	9	3.3	122.6	.1	1.8	34.0	.4	8.7	<.01	.3	13	17
C 115369	7.4	20.5	79.9	15	2.2	258.2	.2	6.5	189.8	2.0	19.9	<.01	.4	33	17
STANDARD DS4/AU-R	6.4	123.8	33.0	154	35.0	24.4	5.0	4.7	5.2	.3	27.0	.27	1.1	495	-

Sample type: ROCK R150 60C. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.



SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ni ppm	As ppm	Cd ppm	Sb ppm	Bi ppm	Ag ppm	Au ppb	Hg ppm	Tl ppm	Au** ppb	Sample lb
C 115370	21.4	12.1	169.0	8	3.3	157.2	.2	13.3	305.6	4.1	16.8	.02	.4	19	16
C 115371	3.5	13.4	38.7	12	2.0	149.8	.1	4.2	65.3	1.0	9.4	<.01	.4	9	16
C 115372	5.8	18.1	79.3	8	3.7	327.9	.1	7.3	106.1	2.2	9.4	<.01	.4	10	19
C 115373	3.5	22.8	32.4	11	2.9	255.5	.1	5.1	38.1	1.2	7.7	<.01	.4	14	15
C 115374	19.2	44.8	95.6	14	4.0	419.8	.3	10.1	346.5	1.7	13.6	.01	1.2	25	16
C 115375	6.4	46.5	15.8	9	3.6	172.7	<.1	2.4	11.0	.3	6.4	<.01	.4	9	15
C 115376	6.9	42.2	89.0	14	6.2	231.6	.2	10.5	290.7	.6	12.5	<.01	.2	21	16
C 115377	6.5	24.9	59.3	12	2.3	145.1	.1	7.7	68.7	.3	3.4	<.01	.2	3	13
C 115378	21.7	45.0	46.3	14	3.6	351.7	.1	7.0	43.8	.3	8.6	.01	.5	12	17
C 115379	14.7	50.7	29.3	9	2.7	119.6	<.1	5.6	40.7	.4	3.5	<.01	.4	6	16
C 115380	8.9	65.7	30.3	8	3.4	459.5	.1	5.3	44.9	.4	13.3	<.01	.6	29	14
RE C 115380	8.8	65.3	30.6	8	3.8	460.4	.1	5.4	48.1	.5	13.6	.01	.6	33	-
C 115381	8.4	45.1	47.9	26	4.2	34.5	<.1	3.9	165.2	.6	12.9	.01	2.3	16	14
C 115382	34.3	33.0	35.1	45	7.6	130.8	<.1	5.2	112.4	.4	12.4	.02	.9	23	11
C 115383	3.1	43.6	5.7	35	8.4	17.4	<.1	.7	3.0	<.1	.7	<.01	.7	2	13
C 115384	4.0	43.0	16.7	19	3.4	140.5	<.1	4.9	10.8	.2	2.1	.02	.3	4	8
C 115385	8.9	39.7	87.6	16	2.6	380.0	.1	27.4	128.7	1.6	10.1	.04	.3	12	14
C 115386	9.7	16.3	14.8	5	2.9	180.1	<.1	3.5	9.3	.3	1.3	<.01	.4	<2	14
C 115387	5.5	27.1	13.8	4	2.4	132.7	<.1	2.0	11.3	.2	<.5	<.01	.4	3	16
C 115388	11.9	27.9	38.0	20	3.1	339.1	.1	9.7	34.8	.6	4.1	<.01	.3	9	13
C 115389	4.6	32.0	11.0	7	5.3	95.0	.1	2.0	6.1	.2	1.8	<.01	.4	4	17
C 115390	4.3	27.7	6.0	7	3.0	63.0	.1	1.9	5.8	.1	2.8	<.01	.3	3	16
C 115391	5.1	32.5	15.8	11	4.1	102.5	.1	2.6	13.2	.1	.7	<.01	.5	4	13
C 115392	11.9	44.6	9.3	9	3.9	144.5	.1	1.9	10.4	.1	2.2	.01	.5	2	17
C 115393	14.8	39.7	45.2	11	3.8	186.1	.1	7.7	74.3	.4	3.3	<.01	.4	3	15
C 115394	8.6	34.2	68.4	8	4.4	206.2	.1	18.7	672.6	.8	12.1	.01	.5	10	17
C 115395	11.7	28.9	130.2	13	3.4	126.6	.1	7.5	246.1	1.4	11.9	.01	4.8	16	18
C 115396	14.8	61.5	77.6	18	5.6	287.8	.5	6.0	233.7	4.2	21.7	<.01	10.6	42	16
C 115397	24.0	102.4	43.8	22	4.3	389.5	.3	5.6	39.8	2.4	5.7	.03	8.2	<2	17
C 115398	21.1	78.0	93.5	22	6.2	476.3	.5	9.1	319.2	1.0	10.4	.01	1.1	14	18
C 115399	18.0	77.1	74.6	19	5.5	542.7	.3	5.9	89.0	.3	5.9	<.01	.4	2	15
C 115400	25.1	144.9	63.4	25	11.8	403.9	.3	7.5	37.9	.5	2.8	.01	.3	2	17
STANDARD DS4/AU-R	6.2	125.2	32.5	147	33.4	22.2	5.3	4.8	4.7	.3	26.0	.26	1.0	484	-

Sample type: ROCK R150 60C. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.



SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ni ppm	As ppm	Cd ppm	Sb ppm	Bi ppm	Ag ppm	Au ppb	Hg ppm	Tl ppm	Au** ppb	Sample lb
C 115401	10.8	52.9	35.5	10	4.6	120.2	.1	4.0	56.3	.6	4.8	.04	.3	5	16
C 115402	28.8	42.3	46.6	13	6.1	126.0	<.1	5.3	75.0	.8	5.0	.03	.2	8	17
C 115403	9.0	46.8	31.5	22	6.3	136.5	<.1	4.2	28.8	.3	8.7	.02	.5	10	15
C 115404	8.2	55.0	49.1	9	5.8	197.5	<.1	7.1	117.7	.4	7.6	<.01	.3	11	16
C 115405	9.3	67.0	38.7	16	6.0	249.7	.3	5.7	47.9	.2	7.7	.02	.2	6	13
C 115406	5.6	38.3	14.0	8	7.1	395.1	.1	2.7	15.2	.8	6.3	<.01	.2	10	10
C 115407	5.0	26.3	62.3	9	3.5	290.0	.2	5.9	73.0	1.0	6.4	.04	.2	6	14
C 115408	11.1	32.8	65.5	12	7.4	334.1	.1	7.7	72.9	1.3	6.4	.04	.4	6	15
C 115409	4.3	25.2	12.6	4	3.8	221.6	.1	2.1	14.4	.3	4.5	.01	.3	5	13
C 115410	17.4	37.7	24.0	6	6.7	217.9	.1	2.4	36.5	.3	5.7	<.01	.2	9	17
RE C 115410	17.3	36.6	24.1	5	7.1	217.2	.1	2.4	36.3	.4	4.0	.04	.2	8	-
C 115411	12.3	69.7	15.7	11	5.3	164.3	.1	2.8	5.8	.2	3.5	.04	.2	<2	16
C 115412	9.4	40.8	31.7	7	4.9	234.7	.1	2.7	30.9	.2	4.0	<.01	.2	5	19
C 115413	14.4	67.5	23.8	9	5.4	205.9	<.1	4.2	34.7	.2	3.2	<.01	.3	2	16
C 115414	6.3	25.1	18.7	12	8.4	275.9	.1	2.9	21.6	.3	2.9	<.01	.3	4	16
C 115415	6.2	56.2	8.0	19	6.7	42.2	.1	1.7	23.2	.6	4.2	.02	.3	6	13
C 115416	6.9	39.4	12.8	3	6.1	158.4	<.1	4.0	46.6	.2	2.9	.01	.2	<2	16
C 115417	9.2	59.7	8.3	6	2.6	45.0	<.1	2.4	3.3	.3	4.9	.02	.3	2	15
C 115418	7.3	31.7	36.8	5	7.6	124.7	<.1	5.1	102.7	.8	12.6	.01	1.6	16	16
C 115419	5.7	37.4	6.4	7	4.1	20.9	<.1	1.1	8.9	1.2	2.7	.01	2.2	11	14
C 115420	7.8	63.2	10.4	16	9.4	68.8	.1	1.6	22.3	.4	4.9	<.01	.5	4	18
C 115421	7.9	30.9	61.6	12	3.0	366.7	.1	8.7	139.1	.4	4.9	<.01	.3	8	17
C 115422	22.5	20.8	261.9	5	7.3	210.1	<.1	29.3	1422.5	3.7	58.0	.09	.8	65	17
C 115423	8.8	34.0	34.1	14	3.6	100.2	.1	7.1	93.7	.2	8.8	.04	.2	13	18
C 115424	6.1	32.2	8.8	7	8.3	41.2	<.1	1.7	39.4	.1	4.7	<.01	.1	5	17
C 115425	16.3	42.1	6.5	11	4.9	91.7	<.1	1.8	10.5	.1	5.9	.01	.2	8	17
C 115426	4.2	15.8	7.6	2	5.4	67.5	<.1	1.2	17.6	.2	1.3	<.01	.2	<2	9
C 115427	2.4	6.9	8.8	2	2.1	34.0	<.1	1.8	14.2	.4	1.0	<.01	.3	4	9
C 115428	3.5	96.2	5.9	9	6.1	107.8	.1	1.6	11.0	.1	<.5	<.01	.1	<2	10
C 115429	3.0	97.8	7.8	7	4.1	54.5	<.1	1.6	20.6	.1	2.1	.01	.1	2	9
C 115430	5.4	89.6	5.6	11	8.3	33.4	<.1	1.4	11.1	.1	1.3	.02	.1	2	5
C 115431	3.8	40.8	3.4	8	3.9	29.1	<.1	.9	6.5	.1	<.5	<.01	.2	<2	7
STANDARD DS4/AU-R	6.9	127.1	32.5	153	35.4	23.7	5.6	4.7	4.8	.3	27.2	.26	1.1	486	-

Sample type: ROCK R150 60C. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.



SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ni ppm	As ppm	Cd ppm	Sb ppm	Bi ppm	Ag ppm	Au ppb	Hg ppm	Tl ppm	Au** ppb
C 115432	3.0	97.7	6.9	15	5.6	42.6	.1	.9	4.4	.2	<.5	<.01	.3	3
C 115433	5.4	68.2	8.9	6	1.8	53.5	<.1	1.3	8.5	.3	.7	<.01	.5	5
C 115434	1.2	72.6	8.1	40	18.6	2.5	.3	.3	7.8	.2	1.0	<.01	.4	<2
C 115435	4.1	40.2	6.2	6	2.4	4.7	.1	.3	8.4	.2	<.5	<.01	.1	<2
C 115436	1.4	43.5	5.1	9	18.7	3.2	.1	.2	5.2	.1	2.8	<.01	.2	2
C 115437	3.6	41.7	10.1	10	4.0	19.8	<.1	.5	7.6	.2	36.3	<.01	.2	<2
C 115438	2.7	100.4	6.1	29	12.3	360.8	.5	1.3	23.0	.1	3.6	<.01	.2	2
RE C 115438	2.5	103.1	6.3	31	12.4	360.9	.5	1.4	23.7	.1	2.0	<.01	.1	5
C 115439	10.0	106.7	26.0	15	6.3	320.5	.3	5.1	24.5	1.5	22.3	<.01	.5	27
C 115440	50.7	362.1	38.0	137	26.0	223.9	14.9	3.5	8.4	19.0	3.6	.05	43.1	4
C 115441	9.8	32.5	18.9	5	2.3	40.9	.1	1.8	52.5	1.1	1.8	<.01	2.3	4
C 115442	50.8	366.9	64.8	78	17.7	451.4	4.0	7.9	20.6	4.4	3.9	.05	81.0	<2
C 115443	5.3	15.8	77.1	8	3.4	170.5	.2	5.4	103.3	2.5	19.3	.01	1.0	14
C 115444	6.4	36.2	28.1	7	2.3	216.4	.1	4.0	14.7	.6	6.8	<.01	.9	9
C 115445	38.6	22.9	171.1	5	3.1	597.3	.1	28.0	178.7	2.1	9.3	.01	.3	14
C 115446	9.8	97.6	51.1	73	18.5	114.6	.1	7.0	138.5	.2	5.8	<.01	.2	7
C 115447	8.6	36.7	123.6	15	4.2	68.1	.2	13.3	873.3	1.8	47.5	.01	1.0	38
C 115448	6.2	17.0	68.6	5	2.5	62.6	.1	9.5	297.7	1.4	15.4	.01	1.9	13
STANDARD DS4/AU-R	6.4	122.8	32.8	145	35.0	24.1	5.6	4.6	5.0	.3	26.6	.32	1.1	488

Sample type: ROCK R150 60C. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

ASSAY CERTIFICATE

Copper Ridge Exploration Inc. File # A203611R Page 1
500 - 625 Howe St., Vancouver BC V6C 2T6 Submitted by: Gerry Carlson

SAMPLE#

W
%

C 115308	.33
C 115309	.29
C 115310	.45
C 115311	.64
C 115313	.76
C 115314	.20
C 115317	.47
C 115318	.96
C 115319	.87
C 115321	1.32
C 115322	.33
C 115328	.21
C 115329	.34
C 115331	.48
C 115332	.21
C 115333	.25
C 115334	.29
C 115340	.19
RE C 115340	.21
C 115341	.53
C 115342	.67
C 115346	.19
C 115347	.19
C 115354	.30
C 115358	.34
C 115359	.32
C 115360	.56
C 115362	.30
C 115364	1.17
C 115366	.52
C 115367	.96
C 115370	.41
C 115374	2.51
C 115376	.22
STANDARD W-4	.76

GROUP 7PF - 0.25 GM SAMPLE, FUSION DIGESTION (Na2O2) TO 100 ML, ANALYZED BY ICP-ES.

- SAMPLE TYPE: ROCK PULP

Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: OCT 4 2002 DATE REPORT MAILED: Oct 15/02 SIGNED BY: C. L. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS



SAMPLE#	W %
C 115381	1.10
C 115382	.86
C 115385	.26
C 115393	.34
C 115394	.31
C 115395	.23
C 115396	.22
C 115398	3.24
C 115399	.76
C 115400	.69
C 115401	.22
C 115402	.52
RE C 115402	.50
C 115405	.16
C 115407	.19
C 115408	.47
C 115422	2.51
C 115423	.15
C 115445	.89
C 115446	.56
C 115447	2.12
C 115448	.95
STANDARD W-4	.77

Sample type: ROCK PULP. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.