

Preliminary Evaluation Report on the GOLDEN PARTRIDGE PROPERTY

MAP SHEETS 105D-3-104 P14 • 60°00'N. LAT. - 135°20'V. LONG.



for Doron Exploration Inc.

SUITE 1500 • 609 GRANVILLE STREET • VANCOUVER • B.C.
P.O. BOX 10362 • STOCK EXCHANGE TOWER • V7Y 1G5

& J.E. WALLIS, P. Eng. • MARCH 1987

 09 17 28

This report has been examined by
the Geological Evaluation Unit
under Section 53 (4) Yukon Quartz
Min. Act and is allowed as
representation work in the amount
of \$ 1000.00.

DA Emery

for Regional Manager, Exploration and
Geological Services for Commissioner
of Yukon Territory.

TABLE OF CONTENTS

	Page
Location Map	1
Conclusions	1
Recommendations	2
Introduction	3
Location and Access	3
Climate	3
Physiography	4
Regional Geology	4
Figure 1 - Regional Geology Partridge Lake Area	5
Economic Geology	6
Figure 2 - Faults, Dykes and Areas of Shattered and Brecciated Granitic Rocks, Partridge Lake Area	7
Claim Status	8
History	9
1986 Field Program	9
Sample Preparation	10
a) Rocks	10
b) Soils and Talus Fines	10
Analytical Methods	10
1) Xray Fluorescence Spectrometry	10
2) Neutron Activation Analysis	11
3) Atomic Absorption and Inductivity Coupled Plasma Analysis	12
Precision and Accuracy	12
Discussion of Results	14
Thin Section Results	14
Statistical Analysis Methods	14
Certificate	20

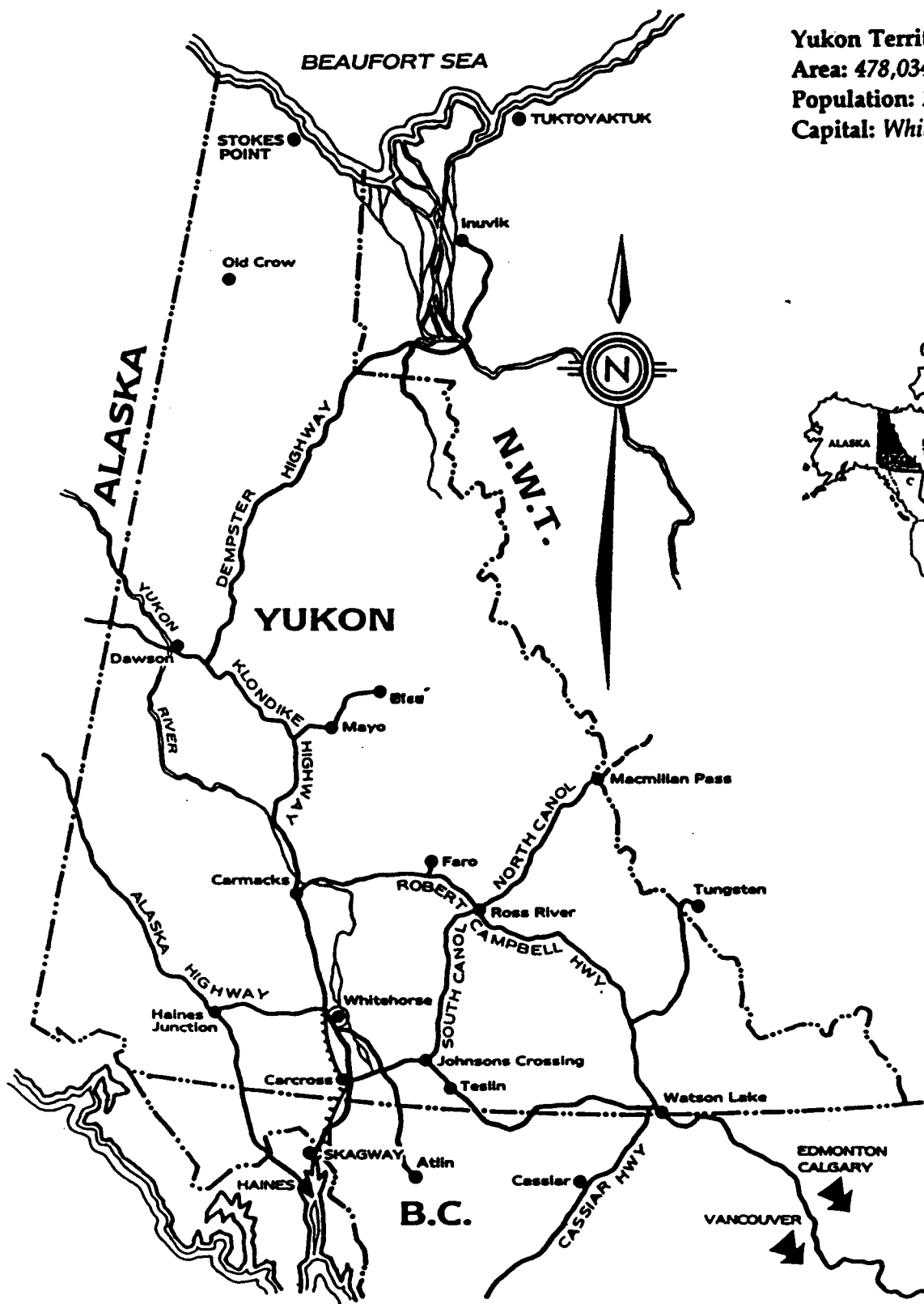
09 17 28

APPENDICES

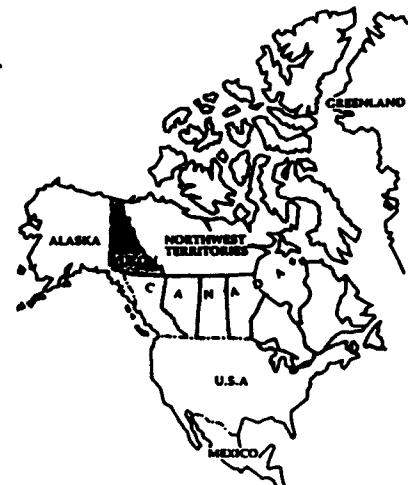
- A. Assessment Reports
- B. Thin Section Analysis Reports
- C. Means, Medians, Variances and Standard Direction by Element
- D. Histogram Analysis - Rock and Soil Samples
- E. Regression Analysis Results
- F. Geochemical Results

LIST OF FIGURES IN MAP POCKET

- Figure 3 Claim Location Map
- Figure 4 Sample Locations (1986)
- Figure 5 Base Geological Map



Yukon Territory
Area: 478,034 sq. km.
Population: 25,000
Capital: Whitehorse



CONCLUSION

Alteration within the Bennett Lake Caldera is characterized by brecciation, microfracturing and stockwork veining, often accompanied by silification and bleaching. Silicification, pyritization, argillization, propylitization, sericite alteration, chalcedony growth, and adularia growth is common. Many rock types show several styles of alteration.

Geochemical analyses of rock, soil and talus fines samples has established the presence of a pervasive Mo anomaly with local anomalies in Au, Ag, As, Sb, Hg, Pb, Zn, Cu, Th, V, F, Ba, Bi and Cd. Most rock anomalies are associated with sulphide mineralization. The presence of the pervasive Mo anomaly suggests that brecciation and alteration within this area is related to magmatic volatile release. Alteration style and geochemical signature are typically epithermal.

Gold shows good correlation with Ag, Pb, Sb, As and Se; Ag shows a high degree of correlation with Au, Zn, Cu, Pb, Cd, Sb, W, As and Se. Fluorine is associated with Hg and Se.

Regression analysis of soil and talus fine samples has shown that screening to - 250 mesh in this environment can significantly increase anomaly resolution for Au, As, and Sb. It has also shown that there is five times as much gold in the - 250 mesh fraction that there is in the -80+250 mesh fraction. Screening to - 250 mesh will also eliminate sampling problems due to mechanical sorting in the natural environment.

In summation, the study has specifically shown that:

- 1) mineralization is epithermal in origin;
- 2) gold values above 20 ppb are anomalous;
- 3) future geochemical samples should be analyzed for Au, Ag and Pb. Precise instructions to grind all geochemical samples to -250 mesh must be given to the analytical laboratory to ensure good anomaly resolution for gold.

RECOMMENDATIONS

A basic prospecting and geochemical program is recommended for the Golden Partridge property. To be cost effective, a small (3 man) crew with helicopter support should be utilized. All geochemical samples should be analyzed for Au, Ag and Pb. Estimated cost of this program is detailed as follows:

Field Geologist, 60 days @ \$400/day	\$ 24,000
Field Assistants, 2 for 60 days @ \$250/day	30,000
Sample analysis, 1500 samples @ \$15/sample	22,500
Camp Cost	15,000
Food and Supplies	18,000
Truck rental	4,000
Helicopter support, 25 hrs @ \$500/hr	12,500
Consultant, reports etc.	<u>12,000</u>
Sub-total	138,000
Contingency 10%	<u>14,000</u>
Total	<u><u>\$ 152,000</u></u>

INTRODUCTION

The Golden Partridge property was staked to cover a geologic target for gold and silver mineralization. This target is a cauldron subsidence complex which is age related and similar to the nearby Mt. Skukum complex which hosts the Mt. Skukum Gold Mine of Total Erickson Resources. This complex was mapped in detail by M.B. Lambert (G.S.C. Bull. 227, 1974).

The 1986 field study was designed as a reconnaissance geological and geochemical program to examine the mineralized alteration zones within the complex. Results of this program will enable the 1987 field program to concentrate on the most favourable geological areas for epithermal gold mineralization.

The geochemical and petrological studies for this report were conducted by Brian Luek who is currently enrolled in a Ph.D. geological program in the Department of Earth Sciences at Carleton University, Ottawa. Special thanks must also be given to Dr. Bruce Ballantyne of the Canadian Geological Survey for his valuable assistance.

LOCATION AND ACCESS

The property is located on and near the B.C./Yukon border approximately 50 miles south of Whitehorse, Yukon. The closest all-weather road is the road to the Mt. Skukum Gold Mine which is 15 miles north of the Jones Creek Valley. Currently, access to this area is by helicopter either from Whitehorse or from a summer base located near the Mt. Skukum mine.

CLIMATE

There are no accurate weather records for the property, however, weather conditions are very similar to those at the Mt. Skukum Mine. Average annual precipitation varies from 14 to 17 inches. The ground can be expected to be snow covered from early September until mid-June. Winter temperatures reach lows of

-45°C with summer temperatures to +25°C. High winds and storm squalls can be anticipated during every month of the year.

PHYSIOGRAPHY

The area shows high relief with deeply incised, youthful, glacially scoured valleys and rugged alpine terrain. Maximum relief is 1.5 km with average relief being 1 km. The area is extremely rugged with extensive outcrop and talus areas. Vegetation is sparse and is composed primarily of alpine grasses and short arctic birch with willows and scrub spruce in the valley bottoms.

REGIONAL GEOLOGY

The regional geology of the district has been well documented by M.B. Lambert (1974) in Geological Survey of Canada, Bulletin No. 227.

The Bennett Lake (Golden Partridge) complex is the more southerly of two outcrop areas of the Mt. Skukum Group of rocks. The complex consists of two nested calderas, an eroded structural dome and a thick succession of pyroclastic and epiclastic rocks related to eruption, subsidence and filling of the cauldrons. The complex is completely surrounded by granitic rocks containing fragments of the Yukon Group. Geologically, the caldera is located near the eastern contact of the Coast Plutonic Complex and the Whitehorse Trough and volcanic arc (see Figure 1 - Regional Geology).

Souther (1970) offered the following hypothesis for the origin of the early Tertiary volcanism within the Canadian Cordilleran which suggests a relationship between extensional tectonics and high level volcanism. He suggests that eastward subduction of the Farralon Plate gave rise to a volcano-plutonic arc which was maintained by partial melting due to subduction. "Rapid uplift accompanied by east-west regional extension and block faulting in early Tertiary time may reflect a decrease in the rate of subduction, allowing rebound of the gravitationally

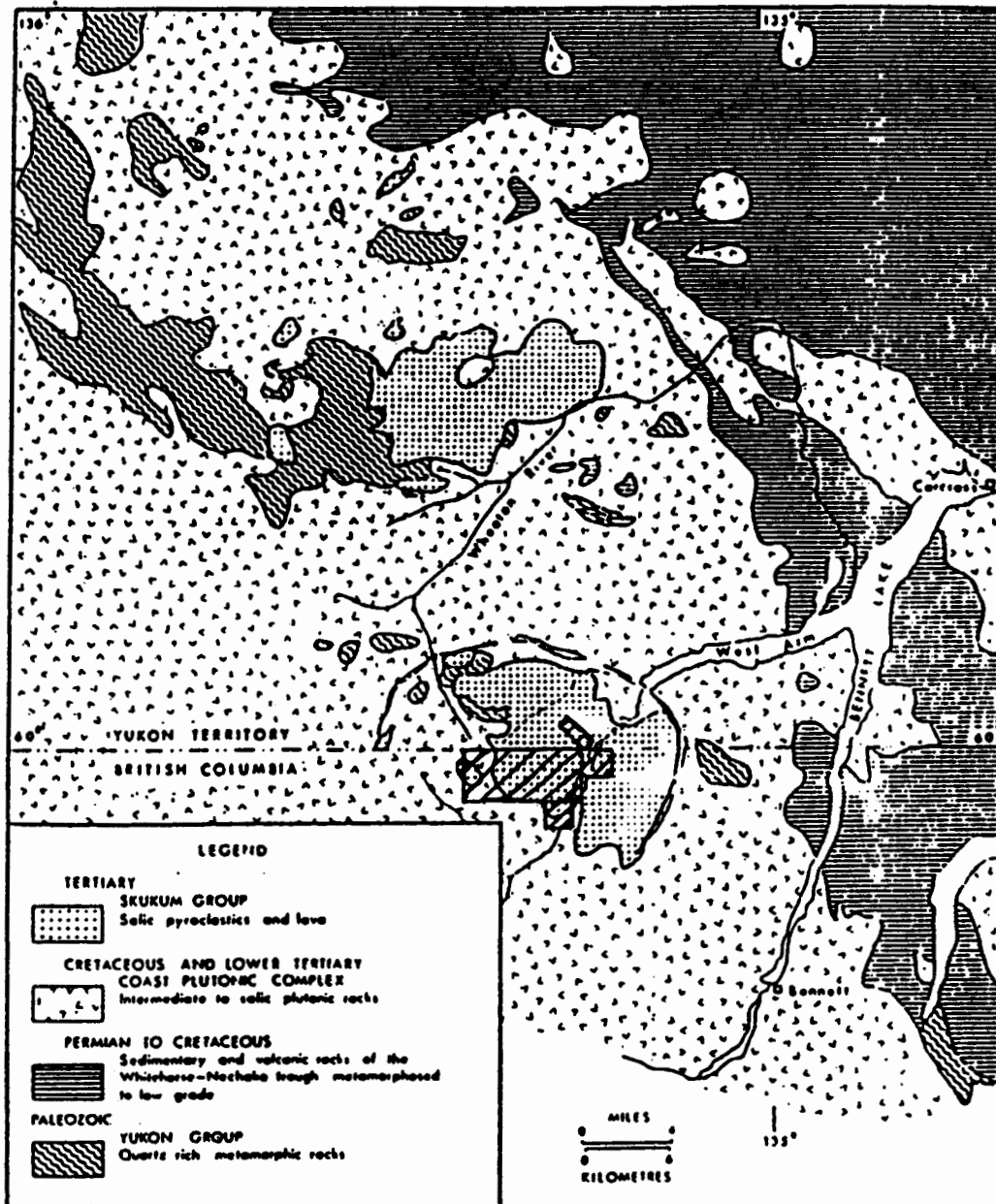


Figure 1 : REGIONAL GEOLOGY PARTRIDGE LAKE AREA

unstable root zone. This resulted in melting of large quantities of rock with subsequent intrusion and diapirism resulting in the emplacement of plutons at high structural levels."

Intrusion of high level plutonic rocks beneath the caldera in early Tertiary time was accompanied by regional extension and high level block faulting. Magmatic fractionation resulted in a zoned and volatile saturated magma chamber.

Initial eruptive events caused radial fracturing, brecciation and shattering of the overlying granitic and metamorphic rocks, followed by the eruption of gas charged magma along the ring fracture system. Volcaniclastics of the Partridge Lake Formation are the result of this eruptive event.

Subsidence along the ring fracture system followed, and a central, largely intact plug was downdropped along the outer ring fractures. Minor block faulting and extrusion of magma within the caldera accompanied this event.

Fractionation of the magma chamber again resulted in explosive volcanism which formed the MacAuley Creek Formation. Caldera collapse then occurred for a second time along arcuate fracture systems within the caldera. Avalanching, active volcanism and brecciation accompanied this event. Volcanism continued for some time after caldera collapse. High level andesite and rhyolite dykes and intrusive bodies crosscut volcanic flows and tuffs at all levels. Dyke swarms are emplaced along ring fractures and fault zones at the southwest edge of the caldera (see Figure 2).

ECONOMIC GEOLOGY

A regional grass-roots exploration program by AGIP Canada Limited in 1980 resulted in the discovery of several anomalous gold zones within the northerly outcrop area of the Skukum Group of rocks. Follow-up trenching and drilling resulted in the outlining of 400,000 tons of proven and probable ore with a grade of 20 grams of gold per ton. The ore body consists of major quartz-calcite veins within a northeast trending fault zone. The vein material is non-typical in that it

contains practically no sulphides and the gold is not visible. Total Erickson Resources Ltd. is currently mining this deposit as their Mt. Skukum Gold Mine at the rate of 150 tons per day.

The Golden Partridge property is located in a southerly outlier of the Skukum Group which has almost identical geology and structural features.

CLAIM STATUS

The Golden Partridge property consists of 12 claims which are composed of a total of 176 units. All claims adjoin and are located in British Columbia with the exception of the BTT 1-10 claims which are located in the Yukon. The claims are held under option by Daron Exploration Inc. Claim details are as follows:

<u>Claim Name</u>	<u>Record No.</u>	<u>No. of Units</u>	<u>Expiry Date</u>
BTT 1-20	2794	20	March 15/88
BTT 20-40	2795	20	March 15/88
BTT 40-60	2796	20	March 15/88
BTT 1-10 (Yukon)		10	May 23/87
Julia	2642	20	June 15/87
Emily	2643	10	June 15/87
Yak (1)	2727	15	Sept. 22/87
Yak (2)	2728	16	Sept. 22/87

Claim locations are shown on Figure 3 - Claim Location Map - Golden Partridge Property.

HISTORY

Undoubtedly, this area was looked at by prospectors working in the Wheaton District in the early 1900's, but little information is available prior to 1979. E & B Exploration Ltd. ran a regional exploration program for uranium in the area in 1979. In an assessment report (Report 7321) R.R. Culbert mentions "many thin aplite and quartz pyrite veins" and a "quartz-fluorite vein with galena-sphalerite-chalcopryrite." These are located on the present "Julia" claim.

In 1981, Kennco Explorations Ltd. carried out a geochemical program in the area (Report 10217).

Copies of both these assessment reports are attached as Appendix "A".

1986 FIELD PROGRAM

The 1986 field program was designed as a reconnaissance geological and geochemical program to examine the mineralized alteration zones within the complex, as mapped by Lambert (1974). Approximately 30 man days were spent in the field by a geologist and prospectors in a helicopter supported program. Extremely steep and rugged terrain with vertical relief of up to 1.5 km restricted the areas which could be traversed and sampled. Often, sample locations were a result of being located along the only suitable route off the mountain, no attempt was made to follow alteration zones which cut across traverse lines. Alteration zones were sampled when encountered, and soil and talus fines collected whenever it was felt that the physiographic setting of the sample location would allow for a meaningful interpretation of the sample geochemistry.

A total of 106 samples were collected. Of these, 52 are rock samples, 50 are soil or talus fines and 4 are stream gravel fines collected from steep talus fan outwash areas.

SAMPLE PREPARATION

(a) Rocks

All rock samples and chip samples were carefully examined under the binocular microscope to determine which pieces of rock were to be chosen as representative of the entire sample. In some cases a sample consisted of only one rock.

Representative samples were cut and slabbed, a piece of each rock was saved, slabs were sent off to be made into polished thin sections and the remainder of the sample was crushed and pulverized for geochemical analysis. Large chip samples and bulk samples were also crushed and ground and submitted for analysis in case the selected samples were not representative.

(b) Soil and Talus Fines

Soil and talus fine samples were dried at low temperature and then sieved by a mechanical shaker. The -80 mesh fraction was separated for analysis and then split in half. One half was ground and pulverized and submitted for analysis. The other half was screened at 250 mesh and the two fractions were separated. Both the -80+250 and the -250 mesh fractions were then pulverized and submitted for analysis. Each sample therefore, received three separate analyses for each element. The results were then compared to see the distribution of metals, according to mesh size, in the samples.

ANALYTICAL METHODS

1. X-Ray Fluorescence Spectrometry

Major elements, and a variety of trace elements were analyzed using x-ray fluorescence. The following is a list of oxides and elements analyzed for by this technique, with detection limits and estimates of absolute error:

<u>Oxide/Element</u>	<u>Absolute Error</u>	<u>Detection Limit</u>
SiO ₂	.40%	.40%
TiO ₂	.02%	.02%
Al ₂ O ₃	.40%	.40%
Cr ₂ O ₃	.10%	.10%
Fe ₂ O ₃	.10%	.10%
FeO	.20%	.20%
MnO	.01%	.01%
MgO	.10%	.10%
CaO	.10%	.10%
Na ₂ O	.50%	.50%
K ₂ O	.05%	.05%
H ₂ O	.10%	.10%
CO ₂	.05%	.05%
P ₂ O ₅	.02%	.02%
S	.04%	.04%
Ba	.002%	.002%
Nb	.003%	.003%
Rb	.002%	.002%
Sr	.002%	.002%
Y	.003%	.003%
Zr	.002%	.002%

H₂O, CO₂, FeO and S were determined by rapid chemical methods and their analyses accompany the X.R.F. report.

2. Neutron Activation Analysis

Neutron activation analyses were done on all rock, soil and talus fines samples. The following 29 elements were analyzed for using this method: Sc, Cr, Fe, Co, Ni, Zn, As, Se, Rb, Mo, Ag, Cd, Sb, Cs, Ba, La, Eu, Tb, Yb, Hf, Ta, W, Ir, Au, Th, U, Te, Hg, Bi.

Blind duplicates and reference standards were run to try and determine the precision and accuracy of the results.

3. Atomic Absorption and Inductively Coupled Plasma Analyses

Total digestion of rock samples by hot HF preceded analysis by these methods. Atomic absorption with air and acetylene was done to analyze for Zn, Cu, Pb, Ni, Co, Mn, Ag, and Cd. Gold analyses were done by A.A. using the graphite furnace and an M.I.B.K. concentration to bring the detection limit to 1 ppb. Mo and V were analyzed for by I.C.P. methods and F and Cl were analyzed for using wet chemical methods. Detection limits for the above mentioned elements were listed below:

<u>Element</u>	<u>Detection Limit</u>
F	50 ppm
Cl	100 ppm
S	50 ppm
Au	1 ppb
Zn	2 ppm
Cu	2 ppm
Pb	5 ppm
Ni	2 ppm
Co	2 ppm
Mn	5 ppm
Fe	10 ppm
Ag	.5 ppm
Cd	.5 ppm
Mo	.5 ppm
V	2 ppm

PRECISION AND ACCURACY

The reference standard Ss06 was analyzed using all of the various analytical techniques. The following is a listing of elements and their average or "true" value in the standard, beside which is a listing of the values obtained from the analyses in this study:

Element	"True Value"	Analyzed Values	Method(s)
Ag	.2 ppm	.5 ppm; 2 ppm	3 AA 6 NAA
As	31 ppm	31, 33, 30, 32, 31, 31	6 NAA
Au	6.2 ppm	5, 7, 10, 9, 9, 37; 15.1, 8, 8, 12	6 NAA 3 AA
Ba	860 ppm	730, 780, 780, 770, 740, 740; 699, 685, 697	6 NAA
Bi	.5 ppm	2, 1, 1	3 NAA
Cd	.4 ppm	5 ppm; .5 ppm	6 NAA 3 AA
Cl	unknown ppm	115, 100, 100	3 DIONEX 1
Cr	450 ppm	520, 530, 510, 500, 510, 510	6 NAA
Cu	52 ppm	48, 51, 49	3 AA
F	850 ppm	809, 836, 860	3 DIONEX 1
Fe	4.9%	5.2, 5.3, 4.9, 5.3, 5.2, 5.1; 4.6, 4.6, 4.7	6 NAA
Hg	25 ppb	30, 25, 25	3 NAA
Ir	unknown ppb	50 ppb	6 NAA
La	30 ppm	31, 32, 34, 33, 34, 34	6 NAA
Mn	1050 ppm	920, 960, 930	3 AA
Mo	5 ppm	4, 6, 4, 4, 3, 3; 4.5, 3.3, 4.2	6 NAA 3 AA
Nb	unknown ppm	40, 44, 51	3 XRF
Ni	295 ppm	300, 320, 270, 300, 290, 270 302, 297, 318	6 NAA 3 AA
Pb	25 ppm	25, 23, 25	3 AA
Rb	137 ppm	130, 140, 120, 140, 130, 120 113, 116, 124	6 NAA 3 XRF
Sb	.3 ppm	1.4, 1.4, 1.6, 1.5, 1.5, 1.4	6 NAA
Se	unknown ppm	5 ppm	6 NAA
Sr	unknown ppm	420, 423, 420	3 XRF
Ta	unknown ppm	2.1, 2.3, 2.4, 2.2, 2.4, 2.4	6 NAA
Te	unknown ppm	.09, .09, .06	3 NAA
Th	13 ppm	13, 13, 14, 13, 13, 13	6 NAA
U	17 ppm	14, 14, 15, 14, 14, 14	6 NAA
V	150 ppm	113, 113, 113	3 NAA
W	18 ppm	18, 19, 23, 19, 17, 18	6 NAA
Y	50 ppm	66, 28, 29	3 XRF
Zr	183 ppm	186, 172, 168	3 XRF
Zn	120 ppm	160, 160, 150, 130, 100, 110; 131, 142, 132	6 NAA 3 AA

Because the reference standard has not been analyzed enough times for the various elements or been proven to be totally homogeneous, it is impossible to be rigorous in determining accuracy and precision. This listing allows for a qualitative examination of the data and helps to build the reference standard database.

DISCUSSION OF RESULTS

Thin Section Results

A variety of styles and alteration, fracturing, brecciation and veining have been observed and documented (see Appendix B - Thin Section Analysis Reports). Silicification and brecciation are widespread and common alteration types. Many samples have been interpreted to be silicified hydrothermal breccias. Brecciation is always accompanied by silicification but quartz replacement is not restricted to zones of brecciation.

Large veins were not encountered anywhere during traversing but breccia zones, fracture zones and stockwork hair-veinlet systems in fault zones are common. Within these zones, silicification, argillization, propylitization, sericite alteration, adularia replacement and chalcedony deposition are common and often overprint one another.

All of the alteration, except for the alteration in one sample which contains actinolite veinlets, can be described as being characteristic of epithermal environments. The presence of fluorite, chalcedony and high levels of Ba, as well as the presence of extensive oxidation suggests that much of the alteration has occurred near the surface. The widespread presence of Mo suggests that hydrothermal brecciation and alteration are related to magmatic volatile release mechanisms (assuming a magmatic source for the Mo).

STATISTICAL ANALYSIS METHOD

All calculations have been done on an Apple II home computer using the software package "MAX" which was developed in Hannover, West Germany. Testing of this package was done by the creator and various statistical experts at the G.S.C. The software package was kindly donated for use by the G.S.C.

Rock samples and soil samples have been divided into two separate populations for statistical analysis. The following methods of analysis have been used:

1. Mean, medians, variances and standard deviations for each element have been calculated for the two populations (see Appendix C). Proper definition of background and anomalous thresholds based on this data set, is not possible due to the limited sample population and the fact that it is biased by preferential sampling of alteration zones.

Anomalies for the elements Mo, Cu, Pb, Zn, Ag, Mn, Au, Hg and As have been defined for soils in this region by Dupont Expl. Inc. following their Kulta Regional Sampling Program (B.C. assessment report 10,425). Sample populations range from 550 to 650 samples.

<u>Element</u>	<u>Anomalous Value</u>
Mo	4 ppm
Cu	80 ppm
Pb	30 ppm
Zn	150 ppm
Ag	1.6 ppm
Mn	1200 ppm
Au	15 ppb
As	120 ppm
Hg	80 ppb

These values have been used to define anomalies in the sample population of this study, including rock samples, as no good database for rock geochemistry is available for this region.

A listing of anomalies based on this less than rigorous approach has been prepared and follows. "Chemdata" refers to rock samples, "Chemdata 2" refers to soil samples and the suffixes 1, 2, and 3 refer to the size fractions - 80 total, -80+250, and -250 respectively.

2. Histogram analysis, based on constant class intervals, has been done for both normal and log transformed data for the elements Au, Ag, As and Sb for both populations (see Appendix D).

Histogram analysis of rock sample data using both normal and log transformed data has been done for the elements Au, Ag, As and Sb. Analysis of normal data for these elements shows it to be extremely left skewed, with between 87% and 91% of all values occurring in the first of 20 class intervals.

Log transformed data is closer to a normal distribution for As and Sb, but Au and Ag remain left skewed. This indicates that detection limits for Au and Ag are too high to determine true background levels. This seems surprising in the case of Au with a detection limit of 1 ppb, but the data indicates that some of these rocks are extremely depleted in Au. Histogram analysis shows gold to be anomalous at 20 ppb.

Histogram analysis of Au values in the various size fractions, within the soil sample population, shows the Au distribution to be erratic. This is probably due to the limited sample population size (N=33).

3. Correlation matrixes have been calculated for major elements in rocks and for trace elements in both rocks and soils. Simple correlation coefficients have been calculated for the rock sample population and Spearman rank correlation coefficients have been calculated for the soil and talus fines sample population.

The following elemental associations have been established based on calculated correlation coefficients for both rocks and soil samples.

Rocks:

<u>Element</u>	<u>Corr. Coeff. .5</u>	<u>.5 Corr. Coeff. .3</u>
Au	Ag, Pb, Sb	Zn, Cu, Cd, Bi, W, As, Se
Ag	Au, Zn, Cu, Pb, Cd, Sb, W, As, Se	
Hg	Se	F, V, Te, Sb
F		Hg, Se
S	V, Sc, As	Cu, Co, Fe
Co	Sc, V	Fe, Mn, S
Mn		Co, Fe
Fe	V, Sc,	S, Co, Mn, Eu
Mo	-	-
Te		Tg
Bi		Cs, Au
Ba		W, As
As	Cr, W, S, Zn, Cu, Pb, Ag, Cd, Sb	Au, V, Ba, Sc, Se
W	Zn, Cu, Pb, Ag, Cd, Sb As, Se	Au, Ni

Soils:

<u>Element</u>	<u>Corr. Coeff. .5</u>	<u>.5 Corr. Coeff. .3</u>
Au	Co	Fe, As, Mo, Cd
Co	Fe, Au	As, Cd, Sb
Fe	Co, As	Cd, Sb, Au
Zn		Cd
As	Fe, Co, Sb	Cd, Mo, Au
Mo		Co, As, Sb, Au, Cd
Cd		Fe, Co, Zn, As, Mo, Sb

In general, soils show much less correlation than do rocks. This is to be expected as rock samples are very site and environment specific whereas soils are a mixture of various geological "environments". The siderophile tendency of Au, however, is apparent for soils in this region. This may reflect an association with sulphur content which, unfortunately, was not analyzed for in soils.

An interesting feature of the rock correlation data is that the Mo is not correlated with anything. This observation, coupled with the fact that Mo values are elevated in most samples, suggests that most all of the alteration zones sampled have had magmatic fluids introduced into their make-up sometime during their alteration history.

4. Regression analysis was done for selected variables in the soil sample population to test for linear relationships between different elements and between like elements from different screen mesh fractions (see Appendix E).

Regression analysis was done for two reasons: (1) To see the relationship between population characteristics in terms of Au, As, and Sb abundance in the various soil size fractions; (2) To see if any significant linear relationship exists between different elements, in this case between Au-As, Au-Sb, and Au-As/Sb (multiple variable regression).

The results of this analysis are rather startling when we look at gold distribution in soils. It shows that there is a highly significant linear relationship between Au in the various size fractions (coeff. of determination = .93 to .95). The relationships analyzed are as follows:

$$\text{Au (-250 mesh)} = -3.3 \text{ ppb} + 5.0 \text{ Au (-80+250 mesh)}$$

$$\text{Au (-80 total)} = 1.3 \text{ ppb} + .72 \text{ Au (-250 mesh)}$$

This shows that 72% of the gold in the -80 total fraction is in the -250 part of that fraction and that there is 5 times as much Au in the -250 mesh fraction as there is in the -80+250 mesh fraction.

The implications of this analysis are that most of the gold in the soils and talus fines is dispersed as very small (-63 microns) particles, and that it is not bound up in rock or mineral fragments in naturally weathering materials.

In regards to geochemical sampling, it shows that in this environment, a simple screening to -250 mesh will increase the gold anomaly resolution by 1.4 times. It will also eliminate erroneous interpretation of data due to low values which will be encountered in naturally sorted materials which are depleted in the lowest size fraction. Pan concentrate sampling would be completely useless for testing for gold anomalies in this environment.

As/As and Sb/Sb regressions for various size fractions also shows a highly significant linear relationship (coeff. of determination = .97 to .985) as follows:

$$\text{As } (-80+250) = .56 \text{ ppm} + .82 \text{ As } (-250)$$

$$\text{Sb } (-80+250) = .07 \text{ ppm} + .79 \text{ Sb } (-250)$$

This again shows that a simple screening to -250 mesh will significantly increase the anomaly resolution for As and Sb.

There is no significant linear relationship between Au-As, Au-Sb, or Au-As/Sb for this population (coeff. of determination = .06 to .09).

APPENDIX A

ASSESSMENT REPORTS

APPENDIX B

THIN SECTION ANALYSIS REPORTS

Rock Sample Descriptions From Hand Samples

Sample Number:

1. Locality 9002: Quartz-Carbonate vein material in chlorite altered granitic rocks; minor pyrite present
2. Locality 9003: White and grey weathering quartz-carbonate vein material; fine grained
3. Locality 9004: From outcrop of rusty weathering aphanitic rhyolite dyke; fine grained pyrite is present and the rhyolite appears to be silicified
4. Locality 9005: Chip sample of a 2m by 2m by 2m boulder of extremely hard quartz-carbonate vein material (it is very difficult to get a chip off these boulders); pyrite is present a minor mineral; white weathering but green and red hues are seen on fresh surfaces
5. Locality 9006: As above
6. Locality 9007: As above
7. Locality 9008: As above
8. Locality 9009: A sample of float material composed of carbonate vein material and extremely oxidized, rusty wall rock
9. Locality 9011: silicified, rusty, altered andesite; float material
10. Locality 9012: Altered, fractured and bleached fault rock contains numerous episodic quartz-carbonate veinlets; pyrite is common and in some places massive; outcrop sample
11. Locality 9013: Same as above
12. Locality 9014: A random sample of talus boulder chips which is assumed to be representative of the large quartz-carbonate vein system which is the source of this material.
13. Locality 9015: Disseminated pyrite and arsenopyrite occur in fine grained unidentified vein material; adjacent to a flow banded and auto-brecciated rhyolite dyke.
14. Locality 9016: Quartz-carbonate vein material containing pyrite, galena and stibnite; white
15. Locality 9017: Buff weathering, fine grained greenish grey rock with rusty patches; dense; contains pyrite

16. Locality 9018: A three metre channel sample from a bleached and silicified zone within a rhyolite dyke system; pink and red coloration is associated with thread quartz veinlets

17. Locality 9019: Brecciated and bleached rhyolite with limonitic breccia matrix; outcrop is in middle of gulley fault at the ridge crest

18. Locality 9021: Rusty weathering pyritic altered rhyolite

19. Locality 9022: Silicified, pyritic, rusty weathering rhyolite

20. Locality 9023: Altered chloritic granite breccia with quartz-carbonate-pyrite vein and breccia deposits; one sample contains visible gold

21. Locality 9024: Chlorite bearing altered granite with quartz-carbonate veining; contains galena and sphalerite

22. Locality 9025: Upper Zone; altered and fractured rhyolite with growth veinlets along fractures; abundant pyrite

23. Locality 9026: Bleached and oxidized rhyolite with minor pyrite

24. Locality 9027: Lower Zone: Same description as 22

25. Locality 9028: Quartz-chalcedony-carbonate-fluorite +/- barite vein system in highly fractured bleached zone

26. Locality 9029: Chalcedony-quartz-carbonate veining from rusty weathering fracture zone

27. Locality 9031: Random chip and grab samples from a 10m wide zone of veined and altered rock; a prominent gossan.

28. Locality 9032: Chip samples from a fault zone with greenish altered volcanics and massive pyrite-carbonate veinlets

29. Locality 9033: A 2-5m zone of intensely silicified rhyolite bearing episodic hair and stockwork veinlets of quartz and chalcedony; no sulphides are visible.

30. Locality 9034: A piece of heavily oxidized limonitic breccia-vein material; botryoidal chalcedony with extremely fine abundant sulphides

32. Locality 9036: A thin vein of quartz-carbonate from outcrop

33. Locality 9037: Extremely altered and friable rock from a rusty oxidized zone; fine grained sulphides are abundant

34. Locality 9038: Rusty altered tuff
35. Locality 9039: Pyritic, fine grained silicified tuff
36. Locality 9041: Altered, fractured and chalcedony-carbonate veined rock found in a conspicuous zone of fine, rusty talus debris
37. Locality 9042: Goat Toehold Showing; A 1m chip sample from a greenish-red weathering pyrite bearing zone of fractured and silicified volcanics
38. Locality 9043: Bleached pyritic tuff
39. Locality 9044: Altered rhyolite
40. Locality 9045: Greenish weathering, bleached volcanic rock; contains arsenopyrite
41. Locality 9046: Silicified pyritic rhyolite
42. Locality 9047: Rusty weathering fractured and chalcedony veined tuff
43. Locality 9048: A bulk sample of extremely friable, rusty carbonate-fluorite-barite veined rock
44. Locality 9049: Representative chips from a boulder of highly silicified fractured granite.
45. Locality 9051: A 1m chip sample of rusty altered fine grained auto-brecciated rhyolite.
46. Locality 9052: A bulk sample of pyritic altered rhyolite with chlorite-goethite-chalcedony-quartz replacements and veins.
47. Locality 9053: A bulk sample of pyritic, fractured rhyolite with large cubes of pyrite.

Sample Number 9003

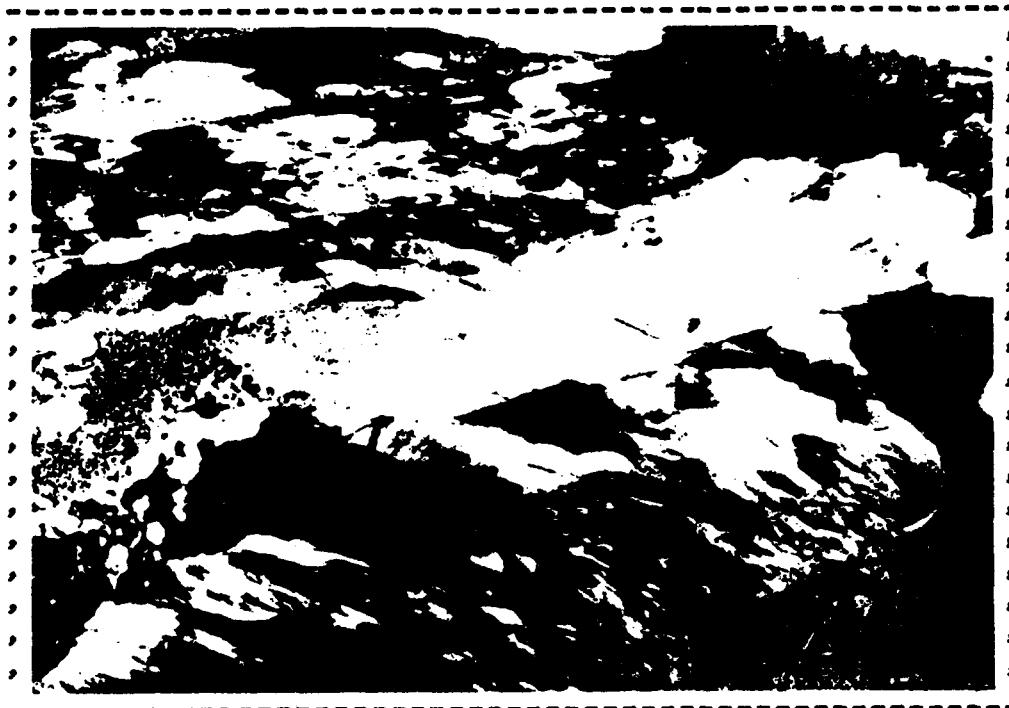


Photo Description: Brecciated, strained and polygonized quartz grains; shatter textures; transmitted light, crossed polars; photo width<> = 1.2 mm

Sample description: Hand Sample: A grey to white weathering, fine grained, silicified rock

Thin Section: Quartz: Large interlocking and fractured grains contain abundant inclusion trails and intergranular textures which may indicate a replacement origin for the quartz; brecciation is the dominant texture; very fine grained quartz is intergrown with sericite in milled matrix; 90% quartz

Chlorite, carbonate, muscovite: These minerals occur as fine grained aggregates and fracture fillings which crosscut brecciated quartz, and as minor phases within the breccia matrix.

Analytical Results:

SiO2:	97.0 %	H2O:	.3 %
TiO2:	.01 %	CO2:	.5 %
Al2O3:	1.4 %		
Fe2O3:	.1 %	Anomalies:	
MnO:	.01 %		
MgO:	.0 %	None	
CaO:	.13 %		
Na2O:	.0 %	Dominant Alteration:	
K2O:	.15 %		
P2O5:	.00 %	Silicification; brecciation	

Sample Number 9004

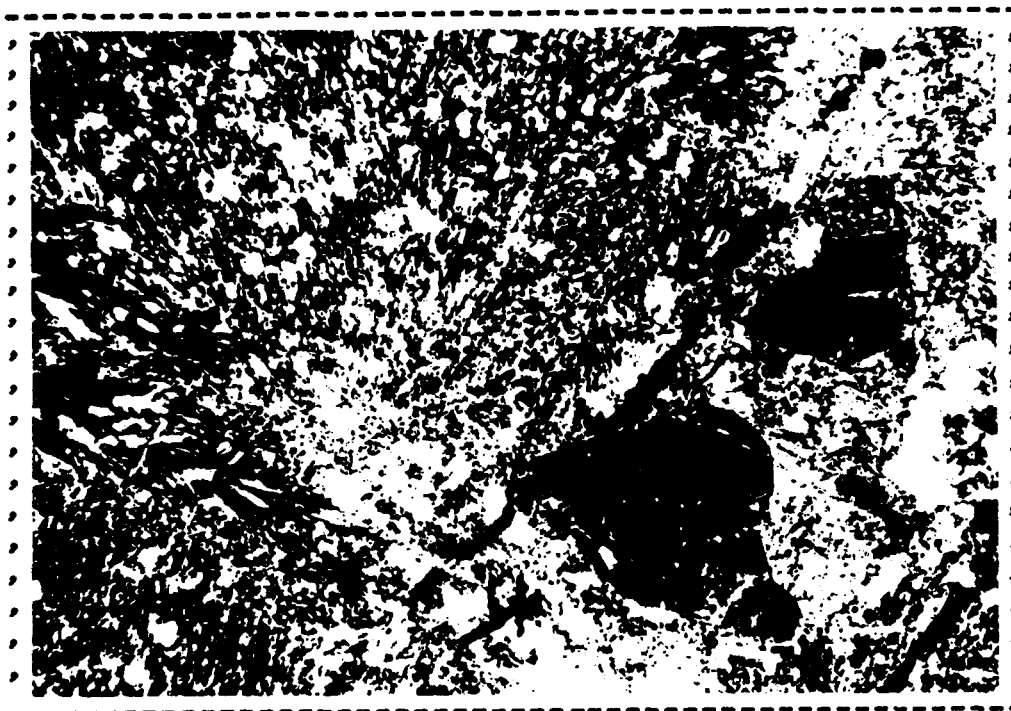


Photo Description: K-feldspar phenocryst cluster in a matrix of radiating zeolites; veinlets of goethite and iron stained muscovite crosscut the photo; photo width = 1.2 mm; crossed polars, transmitted light

Sample description: Hand Sample: A fine grained, rust weathering, aphanitic rhyolite

Thin Section: Phenocrysts: K-feldspar is the dominant type of phenocryst; carlsbad twins are common; some phenocrysts are partly altered to sericite

Matrix: Fine grained goethite and fibrous zeolites dominate; lesser amounts of epidote and sericite are also present

Veinlets: Epidote, quartz, chalcedony, limonite-goethite and minor muscovite occur as fracture fillings

Analytical Results:

SiO ₂ :	75.6 %	H ₂ O:	.8 %
TiO ₂ :	.09 %	CO ₂ :	.2 %
Al ₂ O ₃ :	13.2 %		
Fe ₂ O ₃ :	1.3 %	Anomalies:	
MnO:	.02 %		
MgO:	.0 %	None	
CaO:	.25 %		
Na ₂ O:	2.8 %	Dominant Alteration:	
K ₂ O:	5.82 %		
P ₂ O ₅ :	.00 %	Zeolite replacement and infilling; epidote	

Sample Number 9005



Photo Description: An example of intergranular textures within a single quartz grain; interpreted to indicate replacement origin for the quartz; photo width = 0.6 mm; crossed polars, transmitted light

Sample description: Hand Sample: A fine grained, grey weathering, quartz boulder

Thin Section: Large, often fractured and strained quartz crystals contain abundant inclusions; fine grained breccia matrix contains quartz, epidote, pyrite and sericite

Analytical Results:

SiO ₂ :	94.7 %	H ₂ O:	.7 %
TiO ₂ :	.07 %	CO ₂ :	.1 %
Al ₂ O ₃ :	3.2 %		
Fe ₂ O ₃ :	.5 %	Anomalies:	
MnO:	.01 %		
MgO:	.1 %	Te	.17 ppm , Au 17 ppb
CaO:	.09 %		
Na ₂ O:	0.0 %	Dominant Alteration:	
K ₂ O:	0.88 %		
P ₂ O ₅ :	.14 %	Silicification, brecciation; epidote	

Sample Number 9006



Photo Description: Brecciated quartz crystals and well formed muscovite in quartz-sericite matrix; transmitted light, crossed polars; photo width<> = 1.2 mm

Sample description: Hand Sample: A grey to white weathering, fine grained, silicified rock

Thin Section: Quartz: Large interlocking and fractured grains contain abundant inclusion trails and intergranular textures which may indicate a replacement origin for the quartz; brecciation is the dominant texture; very fine grained quartz is intergrown with sericite in milled matrix

Analytical Results:

SiO2:	91.8 %	H2O:	1.0 %
TiO2:	.12 %	CO2:	.1 %
Al2O3:	4.9 %		
Fe2O3:	.6 %	Anomalies:	
MnO:	.01 %		
MgO:	.3 %	Mo 22 ppm, Hg 45 ppb, Pb 156 ppm, Ag 2.4 ppm	
CaO:	.09 %		
Na2O:	.0 %	Dominant Alteration:	
K2O:	1.41 %		
P2O5:	.15 %	Silicification; brecciation	

Sample Number 9007

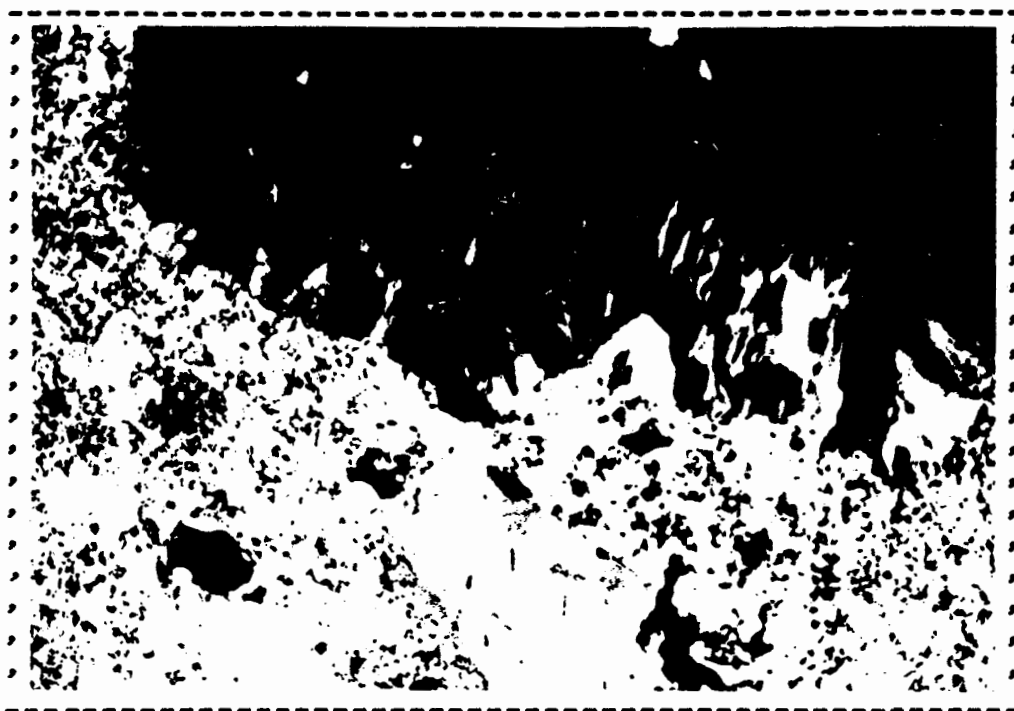


Photo Description: Brecciated quartz crystals and well formed muscovite in quartz-sericite matrix; transmitted light, crossed polars; photo width<> = 1.2 mm

Sample description: Hand Sample: A grey to white weathering, fine grained, silicified rock

Thin Section: Quartz: Large interlocking and fractured grains contain abundant inclusion trails and intergranular textures which may indicate a replacement origin for the quartz; brecciation is the dominant texture; very fine grained quartz is intergrown with sericite and chlorite in milled matrix

Analytical Results:

SiO2: 85.1 %	H2O: 1.5 %
TiO2: .32 %	CO2: .2 %
Al2O3: 8.4 %	
Fe2O3: 1.5 %	Anomalies:
MnO: .02 %	
MgO: .5 %	Mo 37 ppm, Bi 2 ppm, Pb 179 ppm, Au 12 ppb
CaO: .27 %	
Na2O: .0 %	Dominant Alteration:
K2O: 2.57 %	
P2O5: .17 %	Silicification, brecciation; muscovite

Sample Number 9008

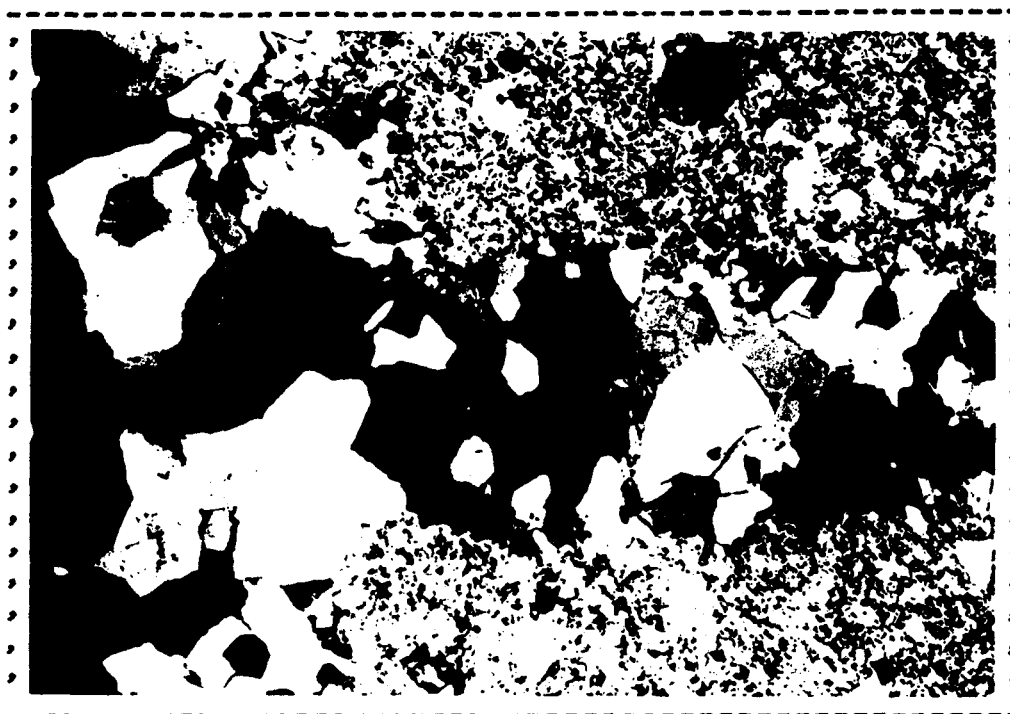


Photo Description: Post-tectonic quartz veinlet with minor epidote in quartz-sericite breccia matrix; transmitted light, crossed polars; photo width <> = 1.2 mm

Sample description: Hand Sample: A grey to white weathering, fine grained, silicified rock

Thin Section: Quartz: At least three generations of quartz growth are present; early silicification (quartz overgrowths) followed by brecciation and finally unstrained quartz veinlets; brecciation is the dominant texture; very fine grained quartz is intergrown with sericite in milled matrix; minor epidote

Analytical Results:

SiO ₂ :	91.0 %	H ₂ O:	1.0 %
TiO ₂ :	.10 %	CO ₂ :	.7 %
Al ₂ O ₃ :	5.4 %		
Fe ₂ O ₃ :	0.5 %	Anomalies:	
MnO:	.01 %		
MgO:	.3 %	Mo	65 ppm, Ag 2.2 ppm,
CaO:	.08 %		
Na ₂ O:	.0 %	Dominant Alteration:	
K ₂ O:	1.66 %		
P ₂ O ₅ :	.14 %	Silicification, brecciation; muscovite	

Sample Number 9009

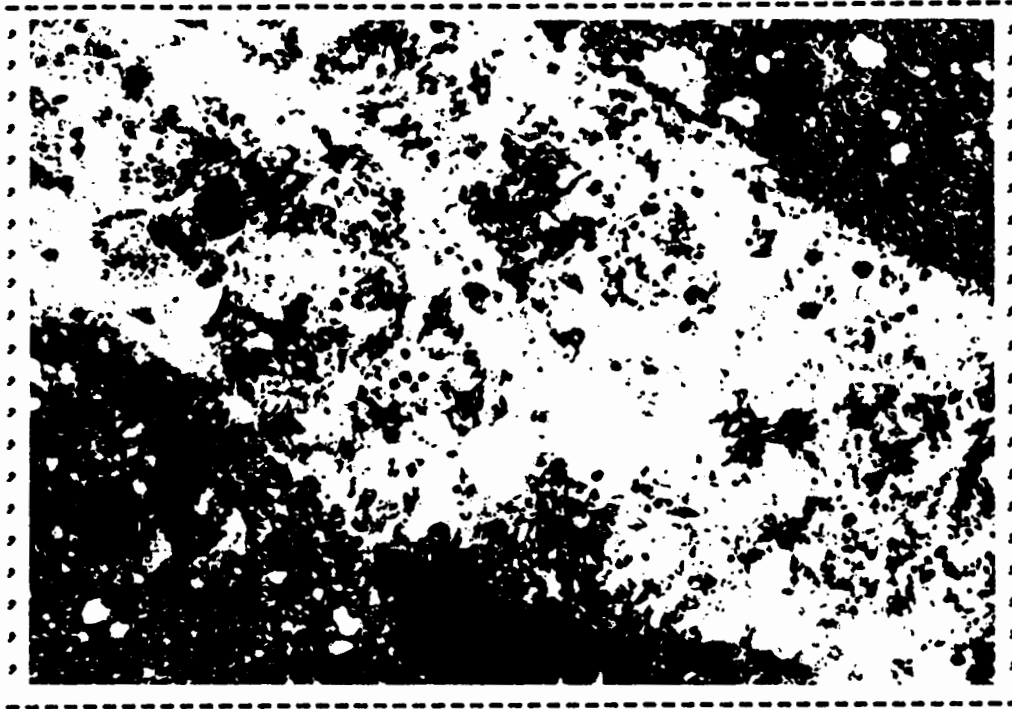


Photo Description: Carbonate veinlet with minor goethite replaces and crosscuts very fine grained quartz-sericite matrix; photo width<> = 1.2 mm; transmitted light:crossed polars.

Sample description: Hand Sample: A rust weathering, highly oxidized silicified and carbonate veined rock

Thin Section: Brecciation is the dominant texture; very fine grained quartz is intergrown with sericite; later carbonate veinlets and replacements crosscut the brecciated quartz goethite or limonite is very conspicuous as a rusty stain in thin section

Analytical Results:

SiO2: 32.9 %	H2O: 1.6 %
TiO2: .08 %	CO2: 25.6 %
Al2O3: 3.0 %	Anomalies:
Fe2O3: 3.8 %	
MnO: .19 %	Bi 2 ppm
MgO: .3 %	
CaO: 32.47 %	
Na2O: .0 %	Dominant Alteration:
K2O: .69 %	
P2O5: .00 %	Silicification; brecciation; carbonatization

Sample Number 9011

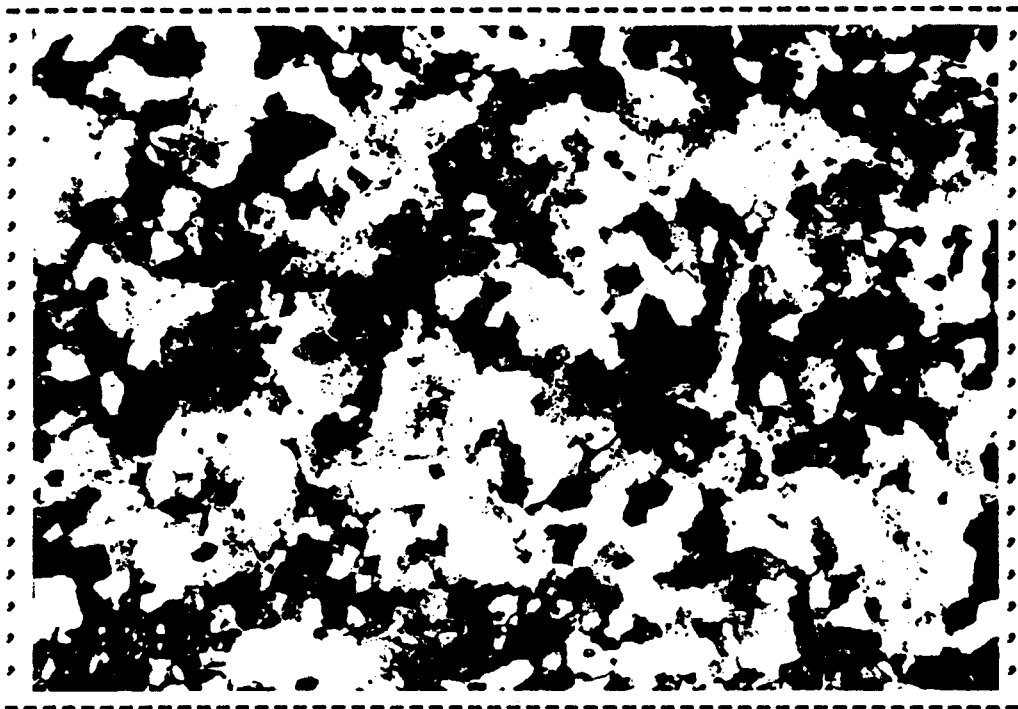


Photo Description: Carbonate and quartz are intergrown in a fine grained aggregate; minor pyrite and goethite are also present
photo width<> = 0.6 mm; transmitted light:crossed polars.

Sample description: Hand Sample: A rust weathering, highly oxidized rock composed of vein material

Thin Section: Quartz, carbonate, goethite, pyrite and very minor flourite are the only minerals present; most of the thin section looks exactly like the above photo, but vugs and larger quartz crystals are also present

Analytical Results:

SiO2:	79.7 %	H2O:	1.9 %
TiO2:	.04 %	CO2:	5.6 %
Al2O3:	5.0 %		
Fe2O3:	2.0 %	Anomalies:	
MnO:	.07 %		
MgO:	.8 %	Zn	140 ppm, Sb 5.6 ppm
CaO:	5.64 %		
Na2O:	.0 %	Dominant Alteration:	
K2O:	.28 %		
P2O5:	.00 %	Probably vein material however the Al	
		content suggests replacement	

Sample Number 9012

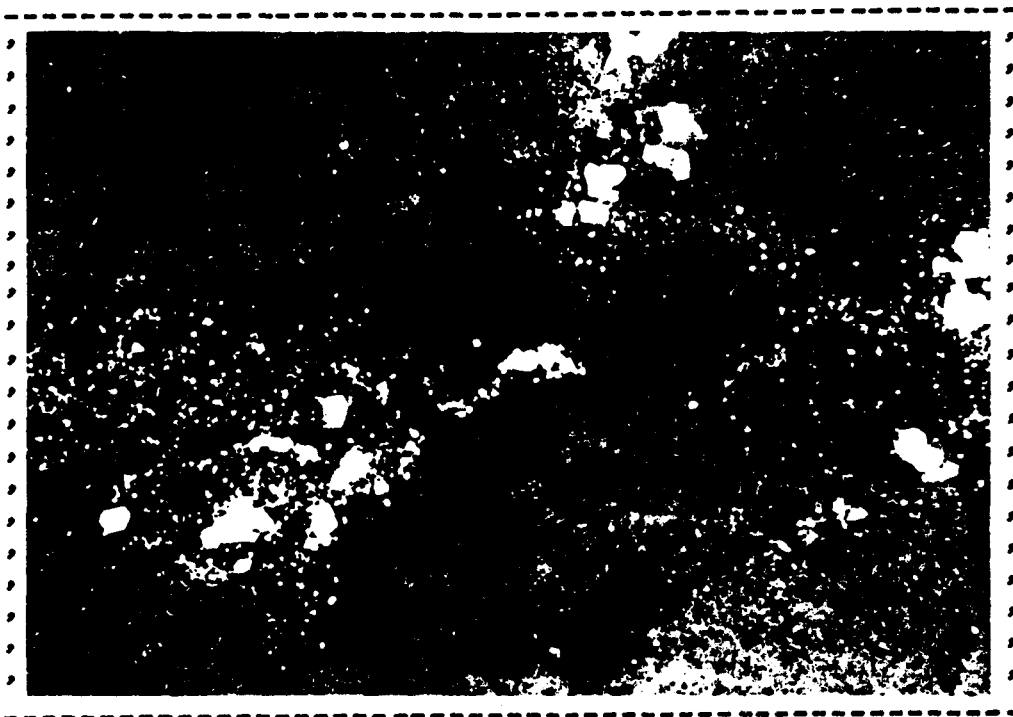


Photo Description: Pyrite replacement of k-feldspar phenocryst and permeable zones within the rhyolitic matrix; very finely disseminated pyrite; photo width < > = 1.2 mm; reflected plane polarized light

Sample description: Hand Sample: Altered, fractured and bleached fault rock containing numerous hair veinlets of quartz-pyrite

Thin Section: Originally a porphyritic rhyolite with k-feldspar phenocrysts; k-feldspar is now altered to yellow stained muscovite with associated pyrite; goethite and/or limonite occurs as staining and fracture fillings; vugs are common; minor carbonate is present

Analytical Results:

SiO ₂ :	69.7 %	H ₂ O:	1.3 %
TiO ₂ :	.25 %	CO ₂ :	.5 %
Al ₂ O ₃ :	15.5 %		
Fe ₂ O ₃ :	2.5 %	Anomalies:	
MnO:	.11 %		
MgO:	.1 %	Zn	140 ppm, Ba 3700 ppm
CaO:	.22 %		
Na ₂ O:	4.4 %	Dominant Alteration:	
K ₂ O:	4.86 %		
P ₂ O ₅ :	.16 %	Phyllic alteration; oxidation; pyritization	

Sample Number 9013



Photo Description: A veinlet of quartz and pyrite is crosscut by later veinlets of quartz and carbonate
photo width < > = 1.2 mm; reflected plane polarized light

Sample description: Hand Sample: Altered, fractured and bleached fault rock containing numerous hair veinlets of quartz-pyrite

Thin Section: Originally a porphyritic rhyolite with k-feldspar phenocrysts; k-feldspar is now altered to yellow stained muscovite with associated pyrite; goethite and/or limonite occurs as staining and fracture fillings; vugs are common; minor carbonate is present

Analytical Results:

SiO ₂ :	67.1 %	H ₂ O:	1.3 %
TiO ₂ :	.80 %	CO ₂ :	.3 %
Al ₂ O ₃ :	13.7 %		
Fe ₂ O ₃ :	6.3 %	Anomalies:	Ag 1.4 ppm, V 62 ppm
MnO:	.06 %		
MgO:	.3 %		Zn 190 ppm, Ba 3000 ppm, Hg 40 ppb, S 2.1 %
CaO:	1.59 %		
Na ₂ O:	3.1 %	Dominant Alteration:	
K ₂ O:	3.36 %		
P ₂ O ₅ :	.31 %	Phyllic alteration; oxidation; pyritization	

Sample Number 9013

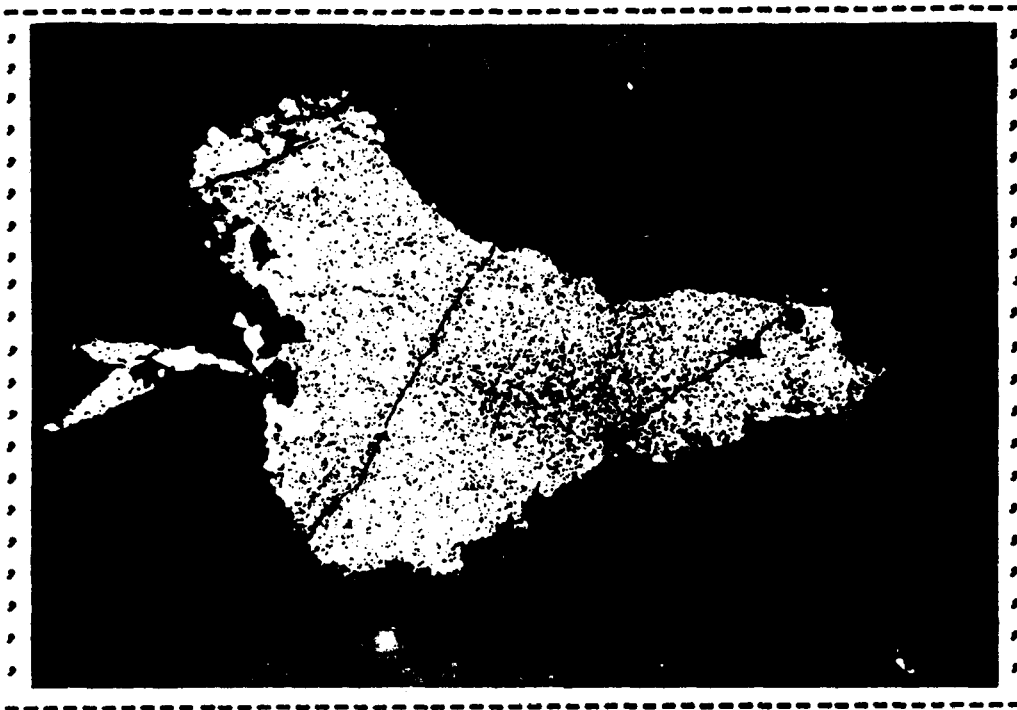


Photo Description: A grain of irregular, spongy pyrite shows textures indicative of replacement of pyrrhotite; crossed polars, transmitted light; photo width $\langle \rangle$ = 1.2 mm

Sample Number 9014

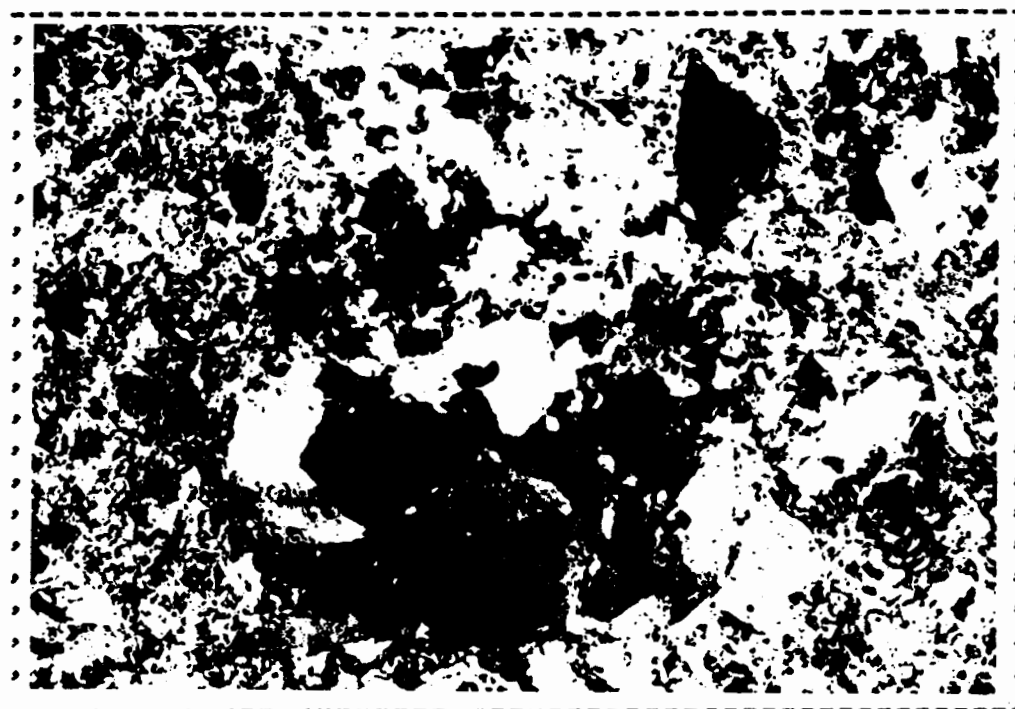


Photo Description: Larger quartz crystals are preserved in a matrix of finely milled quartz and sericite; a highly silicified explosion breccia ; transmitted light, crossed polars; photo width<> = 1.2 mm

Sample description: Hand Sample: A grey to white weathering, fine grained, silicified rock

Thin Section: Quartz: Large interlocking and fractured grains contain abundant inclusion trails and intergranular textures which may indicate a replacement origin for the quartz; brecciation is the dominant texture; very fine grained quartz is intergrown with sericite in milled matrix

Analytical Results:

SiO2:	92.6 %	H2O:	.9 %
TiO2:	.10 %	CO2:	.5 %
Al2O3:	4.2 %		
Fe2O3:	.5 %	Anomalies:	
MnO:	.01 %		
MgO:	.1 %	Mo 18 ppm, Ag 1.5 ppm	
CaO:	.00 %		
Na2O:	.0 %	Dominant Alteration:	
K2O:	1.14 %		
P2O5:	.15 %	Silicification; brecciation	

Sample Number 9015

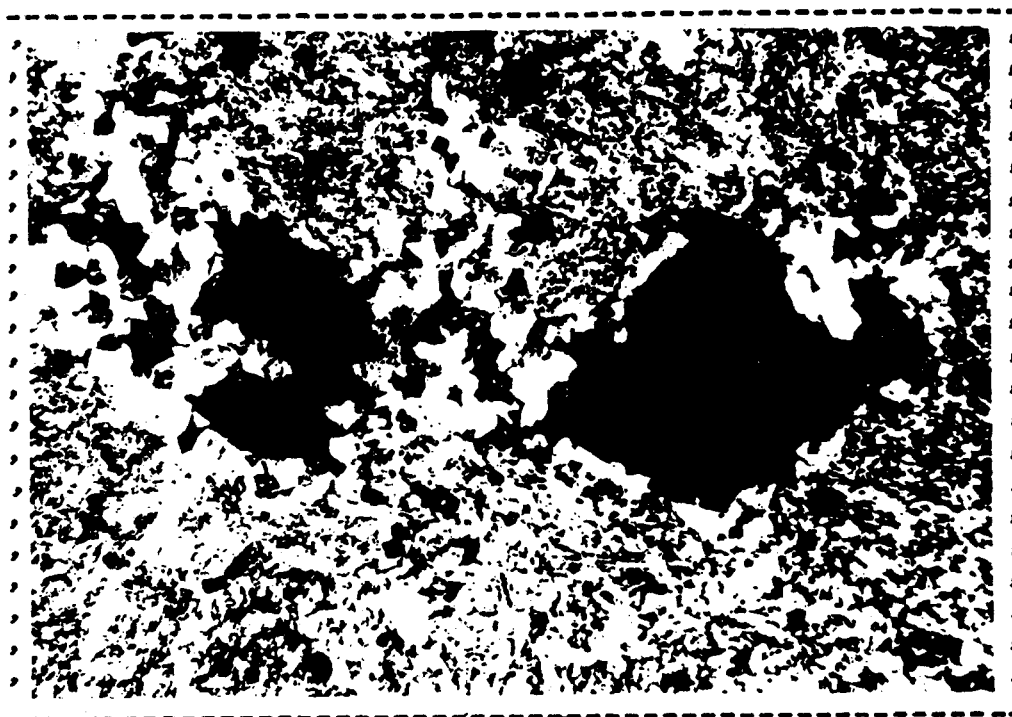


Photo Description: Black vugs are surrounded by fine grained quartz crystals; dark speckles in fine grained altered volcanic are pyrite ; transmitted light, crossed polars; photo width<> = 2.4 mm

Sample description: Hand Sample: A rusty weathering, pyritic volcanic rock; fine grained with greenish alteration

Thin Section: Originally a permeable rhyolitic tuff; now pervasively pyritized and partly silicified; goethite replacement of pyrite is prominent near fractures; fine grained, low birefringent groundmass is probably zeolite but may be fine microliths of radiating quartz-albite; epidote is present

Analytical Results:

SiO ₂ :	66.3 %	H ₂ O:	1.0 %
TiO ₂ :	.35 %	CO ₂ :	.2 %
Al ₂ O ₃ :	17.9 %		
Fe ₂ O ₃ :	3.3 %	Anomalies:	
MnO:	.01 %		
MgO:	.0 %	As 103 ppm, Ba 1500 ppm, S 1.7 %	
CaO:	.26 %		
Na ₂ O:	8.7 %	Dominant Alteration:	
K ₂ O:	1.78 %		
P ₂ O ₅ :	.18 %	Pyritization; silicification; epidote	

Sample Number 9016



Photo Description: Galena, chalcopryite and sericite occur together; Galena appears to be partly euhedral; inclusions in galena are quartz; reflected light, plain polarized; photo width<> = 2.2 mm

Sample description: Hand Sample: Coarse grained quartz vein material with minor galena

Thin Section: Quartz: Almost entirely made up of large quartz crystals; growth shadows of fine dark material are visible in some quartz grains indicating open space, euhedral quartz growth; quartz grains are fractured and full of tiny inclusions

Other phases: Galena, pyrite, chalcopryite and secondary covellite occur as minor sulphide phases; sericite and carbonate are also present

Analytical Results:

SiO ₂ :	97.9 %	H ₂ O:	.2 %
TiO ₂ :	.02 %	CO ₂ :	.1 %
Al ₂ O ₃ :	1.4 %		
Fe ₂ O ₃ :	0.0 %	Anomalies:	
MnO:	.00 %		
MgO:	.0 %	Ag 2.7 ppm, Mo 38.1 ppm, Pb 674 ppm,	
CaO:	.00 %		
Na ₂ O:	.0 %	Dominant Alteration:	
K ₂ O:	0.25 %		
P ₂ O ₅ :	.00 %	A quartz vein; secondary covellite	

Sample Number 9016



Photo Description: Fine grained galena and secondary covellite occur next to irregular vugs; ; crossed polars, transmitted light; photo width $\langle \rangle = 1.2$ mm

Sample Number 9017

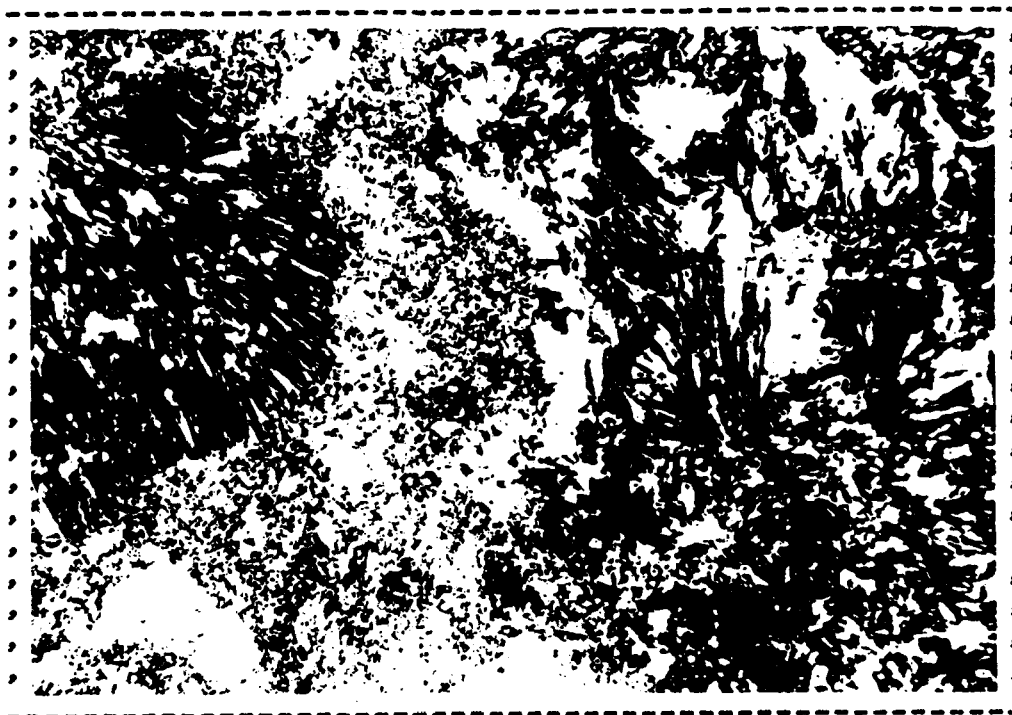


Photo Description: An originally permeable tuff now infilled with radiating zeolites; fine groundmass is quartz and unidentified phyllosilicates; transmitted light, crossed polars; photo width = 2.2 mm

Sample description: Hand Sample: A buff weathering, aphanitic greenish grey volcanic with rusty patches; pyritic

Thin Section: Phenocrysts consist of k-feldspar, quartz and albite; feldspars are partly replaced by sericite; goethite and pyrite are common; volcanic matrix is stained orange

Analytical Results:

SiO ₂ : 76.0 %	H ₂ O: 1.1 %
TiO ₂ : .09 %	CO ₂ : .1 %
Al ₂ O ₃ : 13.3 %	
Fe ₂ O ₃ : 1.4 %	Anomalies:
MnO: .02 %	
MgO: .0 %	Zn 220 ppm, Th 23.3 ppm,
CaO: .10 %	
Na ₂ O: 3.0 %	Dominant Alteration:
K ₂ O: 5.29 %	
P ₂ O ₅ : .00 %	Zeolite replacement; pyritization; oxidation

Sample Number 9018



Photo Description: A large k-feldspar phenocryst is intersected by a thin growth veinlet which is composed of quartz but changes composition as it intersects the phenocryst; probably kaolinite overgrowth; transmitted light, crossed polars; photo width<> = 2.2 mm

Sample description: Hand Sample: *Highly altered, bleached volcanic rock with fine quartz veinlets and iron oxides in a kaolinized matrix*

Thin Section: A very fine grained completely altered volcanic rock; a matrix of quartz and kaolinite(?) contains various green and red oxide phases which are probably goethite and limonite; tiny quartz veinlets cut the rock in a sub-parallel anastomosing network

Analytical Results:

SiO2: 81.8 %	H2O: 1.6 %
TiO2: .08 %	CO2: .0 %
Al2O3: 11.6 %	
Fe2O3: 0.6 %	Anomalies:
MnO: .01 %	
MgO: .0 %	Th 20.7 ppm
CaO: .14 %	
Na2O: .8 %	Dominant Alteration:
K2O: 4.14 %	
P2O5: .00 %	Bleaching; moderate silicification; oxidation

Sample Number 9021



Photo Description: A partly sericitized k-feldspar phenocryst and numerous fibrous zeolites are set in a fine matrix of quartz and limonite stained sericite; stained sericite also occurs as veinlets which crosscut the photograph; transmitted light, crossed polars; photo width<> = 2.2 mm

Sample description: Hand Sample: An aphanitic, rust weathering rhyolite with minor disseminated pyrite

Thin Section: Phenocrysts of k-feldspar and albite are partly or completely replaced by sericite, zeolites and goethite/limonite; fracture veinlets are associated with iron staining; minor pyrite is present

Analytical Results:

SiO2: 77.0 %	H2O: 0.6 %
TiO2: .08 %	CO2: .2 %
Al2O3: 12.3 %	
Fe2O3: 1.0 %	Anomalies:
MnO: .01 %	
MgO: .0 %	Th 20.6 ppm
CaO: .28 %	
Na2O: 3.0 %	Dominant Alteration:
K2O: 5.56 %	
P2O5: .00 %	Phyllic; zeolite replacement; oxidation

Sample Number 9022

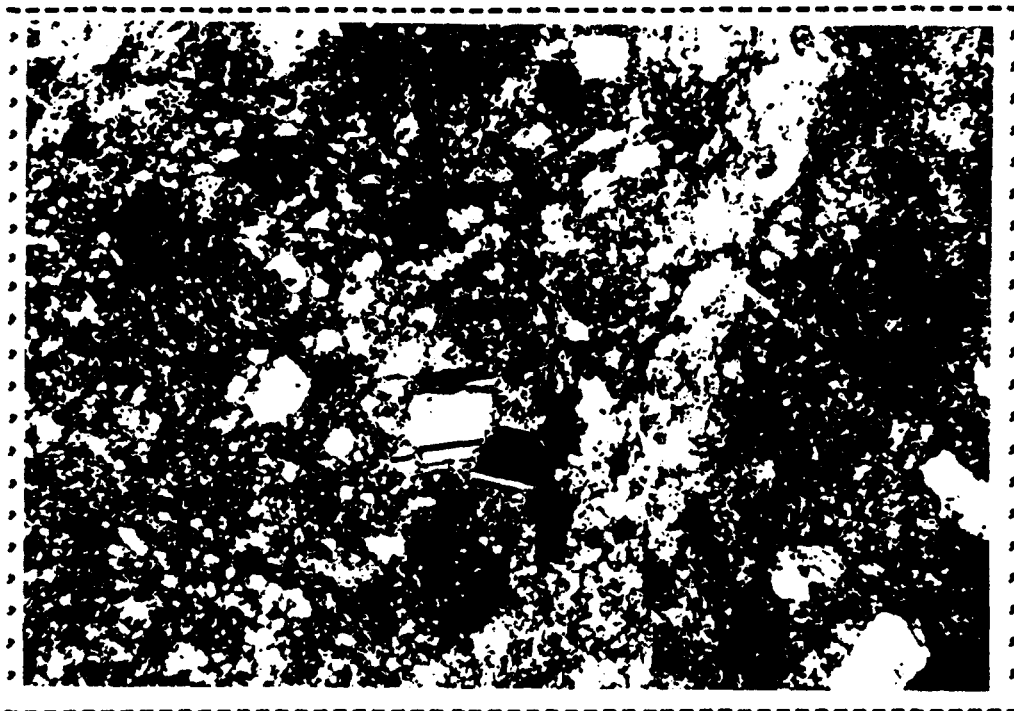


Photo Description: K-feldspar and quartz phenocrysts are set in a matrix of extremely fine quartz, epidote and yellowish stained sericite; a replacement veinlet of epidote crosscuts the photo; transmitted light, crossed polars; photo width<> = 2.2 mm

Sample description: Hand Sample: An aphanitic, rust weathering rhyolite with minor disseminated pyrite

Thin Section: Phenocrysts of k-feldspar and quartz are set in a matrix of fine quartz, sericite and epidote; angular textures suggest that the rock is an autobrecciated flow; yellowish-green staining is pervasive; minor pyrite is present; epidote and goethite occur together in replacement veinlets

Analytical Results:

SiO2:	75.0 %	H2O:	0.7 %
TiO2:	.09 %	CO2:	.0 %
Al2O3:	13.5 %		
Fe2O3:	1.6 %	Anomalies:	
MnO:	.02 %		
MgO:	.0 %	Zn	180 ppm, Th 23.6 ppm
CaO:	.55 %		
Na2O:	4.2 %	Dominant Alteration:	
K2O:	4.64 %		
P2O5:	.00 %	Epidote-sericite; oxidation	

Sample Number 9023

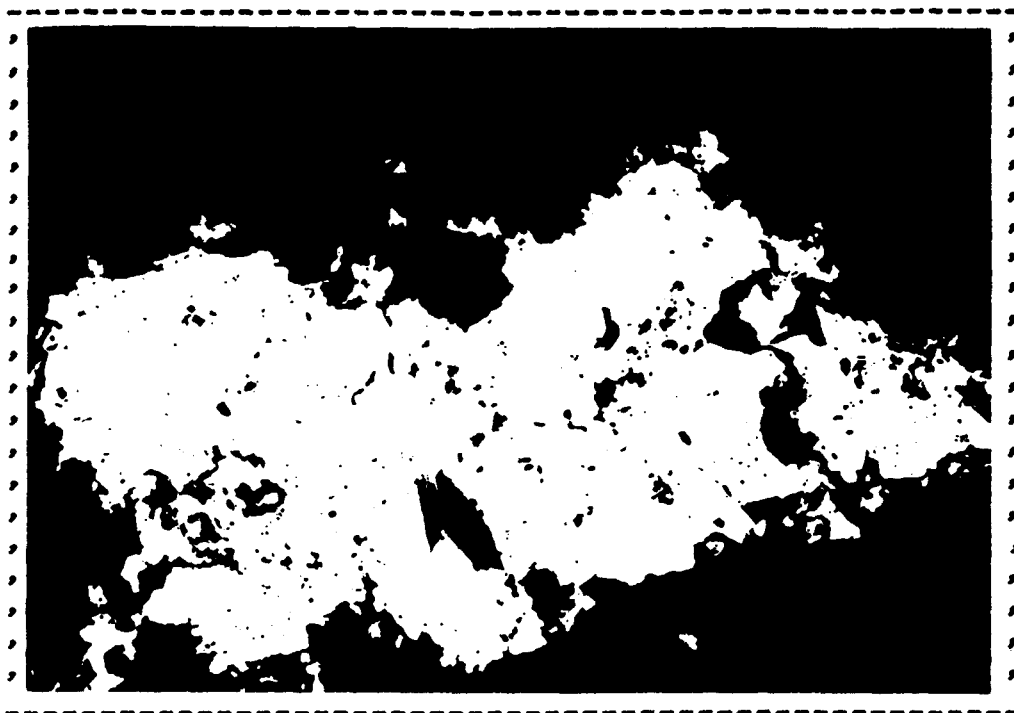


Photo Description: Pyrite-chalcopyrite intergrowth surrounded by quartz and muscovite; reflected light, plain polarized; photo width <> = 1.2 mm

Sample description: Hand Sample: A chloritic brecciated granitic rock with visible pyrite and chalcopyrite; silicified

Thin Section: A highly fractured and brecciated granite with prominent chloritic alteration: quartz occurs as unstrained euhedral crystals (post-tectonic); as shattered, strained and polygonized grains (pre-tectonic); and as granulated and silicified breccia matrix (syn-tectonic); breccia matrix also contains chlorite, carbonate, epidote and sericite; pyrite and chalcopyrite occur within the breccia matrix or adjacent to late quartz, carbonate or muscovite which formed late

Analytical Results:

SiO ₂ :	88.1 %	H ₂ O:	1.0 %
TiO ₂ :	.17 %	CO ₂ :	0.3 %
Al ₂ O ₃ :	5.9 %		
Fe ₂ O ₃ :	1.2 %	Anomalies:	
MnO:	.01 %		
MgO:	.3 %	Ag 2.5 ppm, Mo 12.3 ppm, Pb 60 ppm, Cu 137 ppm	
Ca:	0.25 %		
Na ₂ :	0.0 %	Dominant Alteration:	
K ₂ :	1.76 %		
P ₂ O ₅ :	.16 %	Propylitic; brecciated; silicified	

Sample Number 9023

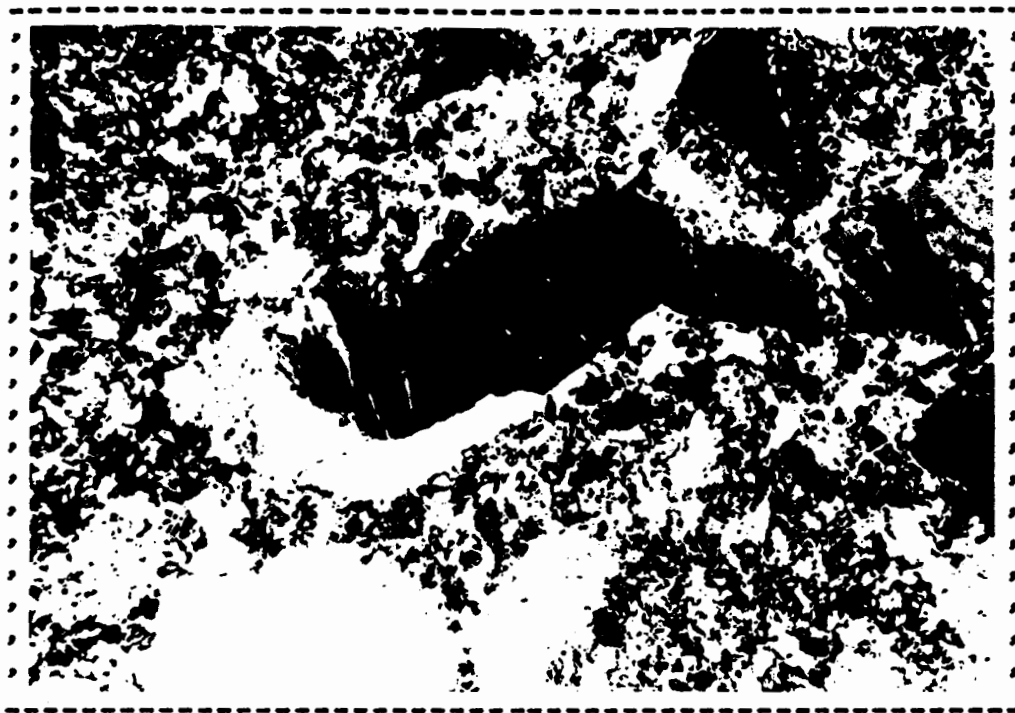


Photo Description: Brecciated and strained quartz fragments occur in a breccia matrix of quartz and muscovite; crossed polars, transmitted light; photo width $\langle \rangle$ = 2.3 mm

Sample Number 9024

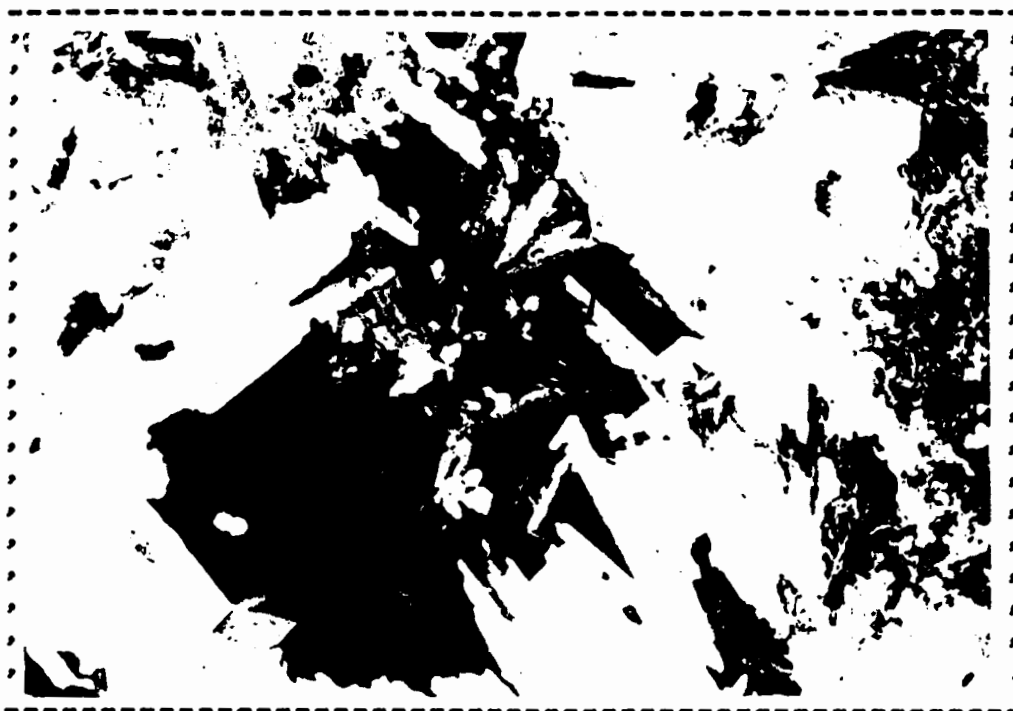


Photo Description: Darker radiating chlorite is surrounded by euhedral carbonate crystals; carbonate predates chlorite; crossed polars, transmitted light; photo width <> = 1.2 mm

Sample description: Hand Sample: A chloritic, carbonate veined, granitic rock containing galena and sphalerite.

Thin Section: A highly fractured and brecciated granite with prominent chloritic alteration: quartz occurs as shattered, strained and polygonized grains (pre-tectonic); and as granulated and silicified breccia matrix (syn-tectonic): breccia matrix also contains chlorite, carbonate, epidote, sphene, and sericite; galena, sphalerite and chalcopryrite occur with chlorite and carbonate

Analytical Results:

SiO ₂ :	74.9 %	H ₂ O:	1.6 %
TiO ₂ :	.21 %	CO ₂ :	2.9 %
Al ₂ O ₃ :	8.0 %	Anomalies:	Zn 370 ppm, Cd 10 ppm, W 6 ppm,
Fe ₂ O ₃ :	3.2 %		
MnO:	.26 %		
MgO:	.8 %		Au 29 ppb, Mo 11.6 ppm, Pb 257 ppm, Mn 1910 ppm
CaO:	6.45 %		
Na ₂ O:	0.5 %	Dominant Alteration:	
K ₂ O:	1.08 %		
P ₂ O ₅ :	.17 %	Propylitic; brecciated	

Sample Number 9025A



Photo Description: Fracture veinlet in altered rhyolite contains sulphide mineralization consisting of pyrrhotite altering to marcasite; chalcopryrite and other unidentified sulphide phases are present; reflected light, plane polarized; photo width (<) = 2.3 mm

Sample description: Hand Sample: A rusty weathering, fractured, aphanitic rhyolite

Thin Section: Fracture veinlets are mineralized with sulphides (pyrrhotite, marcasite, chalcopryrite and others); adjacent to fracture veinlets, silicification and adularia replacement are common; altered rhyolite groundmass is now composed of quartz, epidote and iron stained muscovite; goethite is common along fractures

Analytical Results:

SiO ₂ :	78.0 %	H ₂ O:	1.0 %
TiO ₂ :	.09 %	CO ₂ :	0.1 %
Al ₂ O ₃ :	12.6 %		
Fe ₂ O ₃ :	1.2 %	Anomalies:	
MnO:	.01 %		
MgO:	.0 %	Au	400 ppb, Te .02 ppm, Bi 2 ppm
CaO:	0.19 %		
Na ₂ O:	2.3 %	Dominant Alteration:	
K ₂ O:	5.16 %		
P ₂ O ₅ :	.00 %	Sericite epidote; silicification, adularization	

Sample Number 9025A

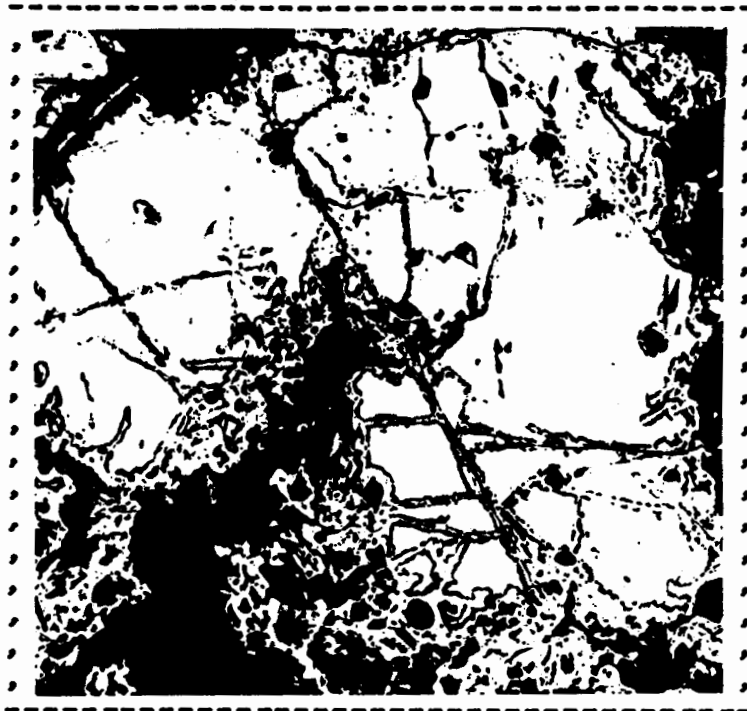


Photo Description: Large pyrrhotite grains are partially replace by marcasite; minor chalcopyrite and an unidentified bright white phase are present

Sample Number 9025B



Photo Description: Twinned and radiating adularia crystals occur with goethite as replacement minerals after pyrite or pyrrhotite; crossed polars, transmitted light; photo width $\langle \rangle$ = 2.3 mm

Sample description: Hand Sample: A rusty weathering, fractured, aphanitic rhyolite showing strain fabric

Thin Section: Originally an aphanitic rhyolite which is now almost completely adularized; adularia occurs as replacements throughout the rock; pyrite, chalcopyrite and goethite occur as ellipsoidal segregations with adularia, quartz, muscovite and carbonate; sericite is common

Analytical Results:

SiO ₂ :	74.7 %	H ₂ O:	0.7 %
TiO ₂ :	.09 %	CO ₂ :	0.1 %
Al ₂ O ₃ :	14.0 %		
Fe ₂ O ₃ :	1.5 %	Anomalies:	
MnO:	.02 %		
MgO:	.0 %	Th	23.9 ppm, Te .04 ppm
CaO:	0.33 %		
Na ₂ O:	5.4 %	Dominant Alteration:	
K ₂ O:	3.00 %		
P ₂ O ₅ :	.00 %	Sericite, adularia; albite(?)	

Sample Number 9025B



Photo Description: Adularia, muscovite and carbonate occur as a replacement or growth veinlet; opaques are pyrite, chalcopryrite and goethite; crossed polars, transmitted light; photo width <> = 2.3 mm

Sample Number 9026

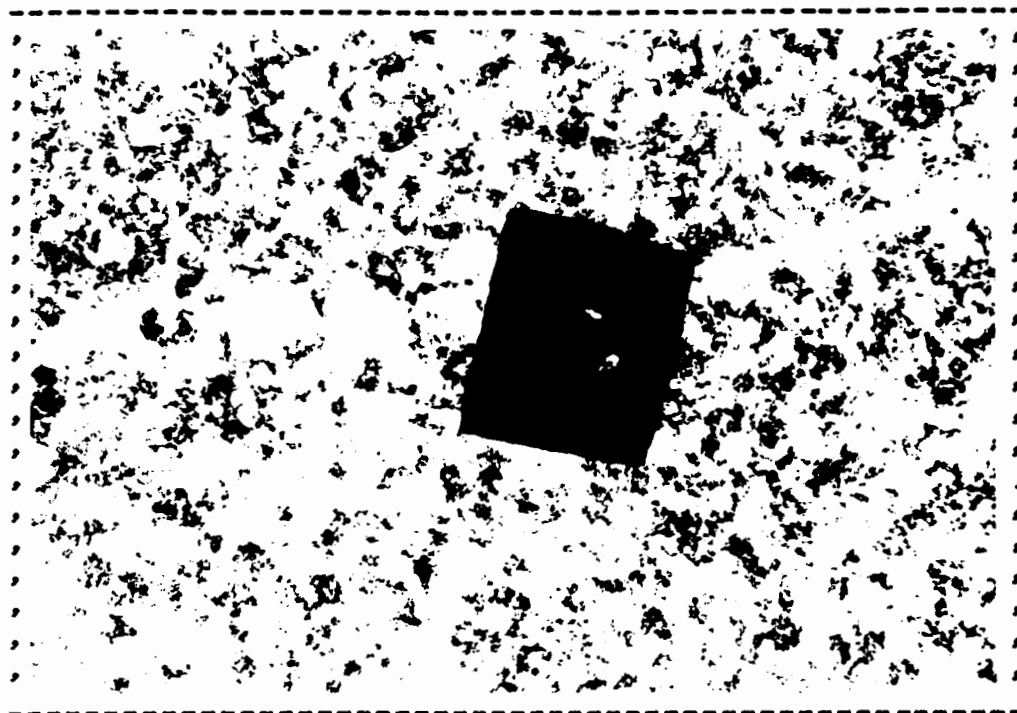


Photo Description: Euhedral pyrite is set in a fine grained matrix of quartz, sericite and kaolinite(?); pyrite lies along growth veinlet of quartz-adularia; crossed polars, transmitted light; photo width <> = 2.4 mm

Sample description: Hand Sample: A rusty weathering, fractured, aphanitic, bleached rhyolite containing pyrite

Thin Section: Originally an aphanitic rhyolite which is now almost completely altered to a fine groundmass of quartz, sericite and kaolinite(?); goethite, pyrite and carbonate occur near fractures

Analytical Results:

SiO ₂ :	77.4 %	H ₂ O:	1.3 %
TiO ₂ :	.12 %	CO ₂ :	0.3 %
Al ₂ O ₃ :	13.0 %		
Fe ₂ O ₃ :	0.9 %	Anomalies:	
MnO:	.01 %		
MgO:	.0 %	Zn	150 ppm, Te .02 ppm, Th 22.5 ppm
CaO:	0.33 %		
Na ₂ O:	2.3 %	Dominant Alteration:	
K ₂ O:	4.33 %		
P ₂ O ₅ :	.00 %	Sericite, adularia; bleaching	

Sample Number 9027



Photo Description: Pyrite, goethite, quartz and actinolite occur together as vein material in altered rhyolite; crossed polars, transmitted light; photo width $\langle \rangle = 2.4$ mm

Sample description: Hand Sample: A rusty weathering, fractured, aphanitic, bleached rhyolite containing pyrite

Thin Section: Originally an aphanitic rhyolite which is now almost completely altered to a fine groundmass of quartz, sericite and kaolinite(?); goethite, pyrite and actinolite occur as vein infillings

Analytical Results:

SiO ₂ :	77.6 %	H ₂ O:	0.6 %
TiO ₂ :	.08 %	CO ₂ :	0.2 %
Al ₂ O ₃ :	12.3 %		
Fe ₂ O ₃ :	1.3 %	Anomalies:	
MnO:	.02 %		
MgO:	.0 %	Th	22.2 ppm
CaO:	0.23 %		
Na ₂ O:	3.7 %	Dominant Alteration:	
K ₂ O:	4.55 %		
P ₂ O ₅ :	.00 %	Sericite, adularia; bleaching	

Sample Number 9028



Photo Description: Fracture veinlets of chalcedony and goethite crosscut a matrix of fine grained quartz and sericite; crossed polars, transmitted light; photo width <> = 2.4 mm

Sample description: Hand Sample: A rusty weathering, aphanitic, silicified rock with large fluorite crystals attached

Thin Section: Originally an aphanitic rhyolite which is now almost completely altered to a fine groundmass of quartz and sericite; fracture veinlets of goethite and chalcedony crosscut the section; fluorite is common outside the quartz-muscovite matrix

Analytical Results:

SiO ₂ :	81.6 %	H ₂ O:	0.6 %
TiO ₂ :	.11 %	CO ₂ :	0.2 %
Al ₂ O ₃ :	3.0 %		
Fe ₂ O ₃ :	0.2 %	Anomalies:	
MnO:	.01 %		
MgO:	.0 %	F 7.5 % , Mo 5.7 ppm, Te .02 ppm	
CaO:	10.19 %		
Na ₂ O:	0.0 %	Dominant Alteration:	
K ₂ O:	0.70 %		
P ₂ O ₅ :	.15 %	Sericite, silicification	

Sample Number 9029

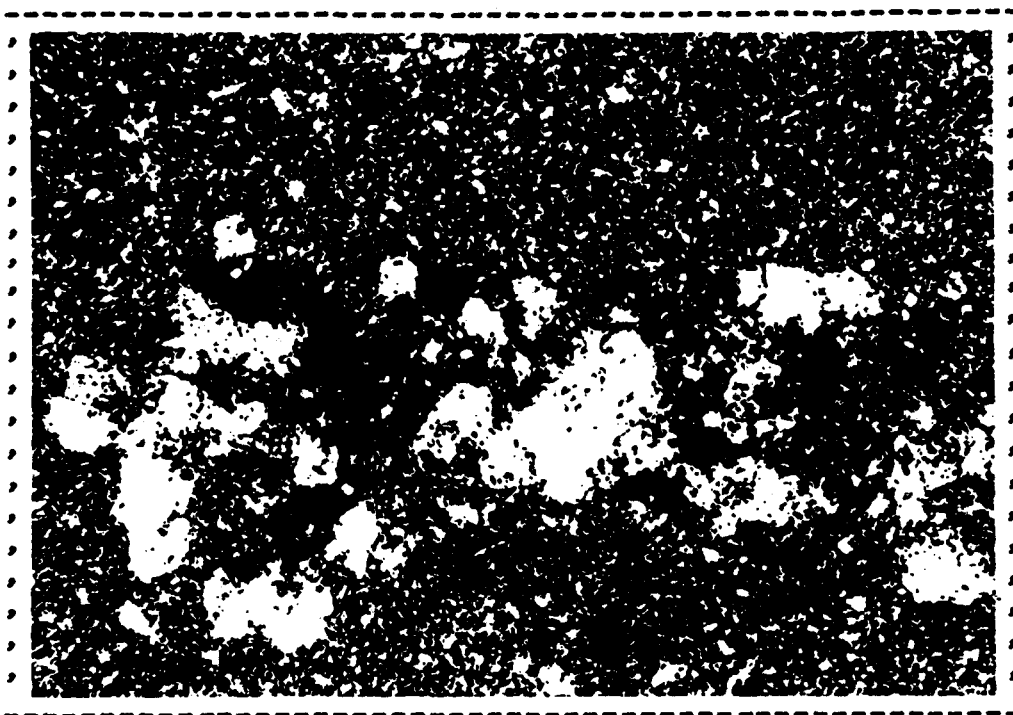


Photo Description: Adularia and quartz growth in a fine matrix of quartz and iron stained phyllosilicates; crossed polars, transmitted light; photo width $\langle \rangle$ = 2.3 mm

Sample description: Hand Sample: A rusty weathering, aphanitic, silicified rock

Thin Section: Originally an aphanitic rhyolite which is now almost completely altered to a fine groundmass of quartz and unidentified phyllosilicates; pyrite and arsenopyrite are fine grained and disseminated but occur preferentially around vugs, fractures and adularia; staining has a distinct greenish hue

Analytical Results:

SiO ₂ :	83.8 %	H ₂ O:	2.4 %
TiO ₂ :	.23 %	CO ₂ :	0.1 %
Al ₂ O ₃ :	7.0 %		
Fe ₂ O ₃ :	3.3 %	Anomalies:	Ba 16600 ppm, Sb 9 ppm, Te .02 ppm
MnO:	.04 %		
MgO:	.1 %		Au 44 ppb, As 1670 ppm, Mo 20.8 ppm, V 26 ppm
CaO:	0.17 %		
Na ₂ O:	0.0 %	Dominant Alteration:	
K ₂ O:	1.18 %		
P ₂ O ₅ :	.17 %		Adularization; bleaching; oxidation

Sample Number 9031

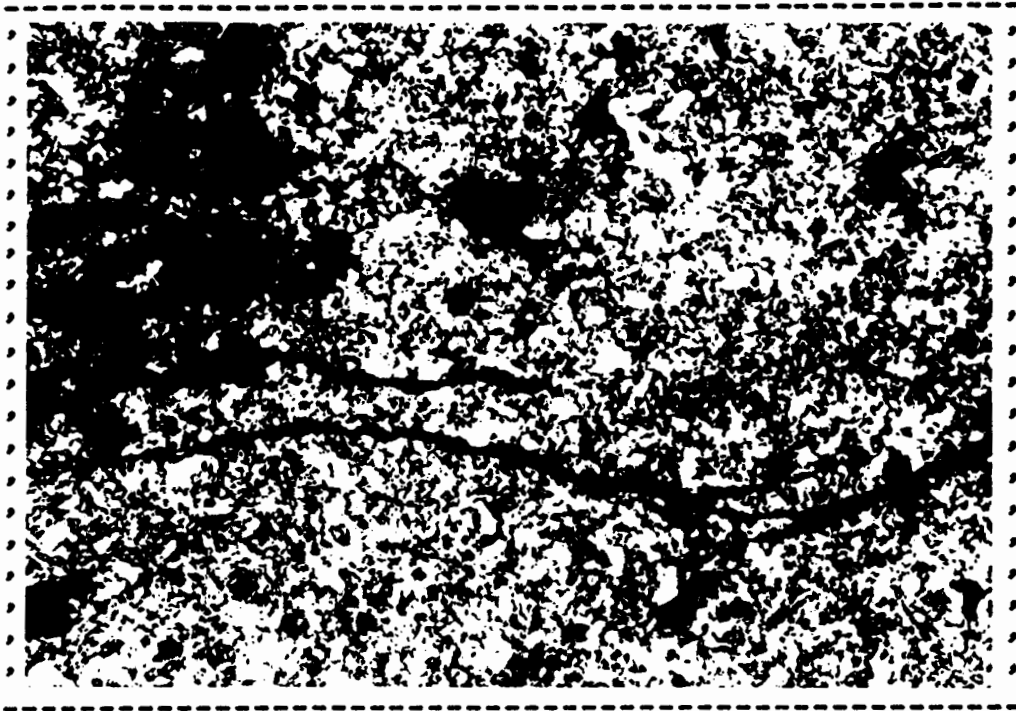


Photo Description: A fine grained matrix of quartz and sericite contains replacements and veinlets of dark goethite; crossed polars, transmitted light; photo width $\langle \rangle$ = 2.3 mm

Sample description: Hand Sample: A rusty weathering, aphanitic, silicified rock

Thin Section: Originally an aphanitic rhyolite which is now almost completely altered to a fine groundmass of quartz and sericite; goethite is the only other major phase which is present

Analytical Results:

SiO ₂ :	83.4 %	H ₂ O:	1.5 %
TiO ₂ :	.33 %	CO ₂ :	0.1 %
Al ₂ O ₃ :	9.1 %		
Fe ₂ O ₃ :	1.8 %	Anomalies:	
MnO:	.01 %		
MgO:	.0 %	Mo 6.6 ppm, As 81.7 ppm, Sb 3.7 ppm, Te .02 ppm	
CaO:	0.21 %		
Na ₂ O:	1.9 %	Dominant Alteration:	
K ₂ O:	2.03 %		
P ₂ O ₅ :	.19 %	Silicification; sericite; oxidation	

Sample Number 9032

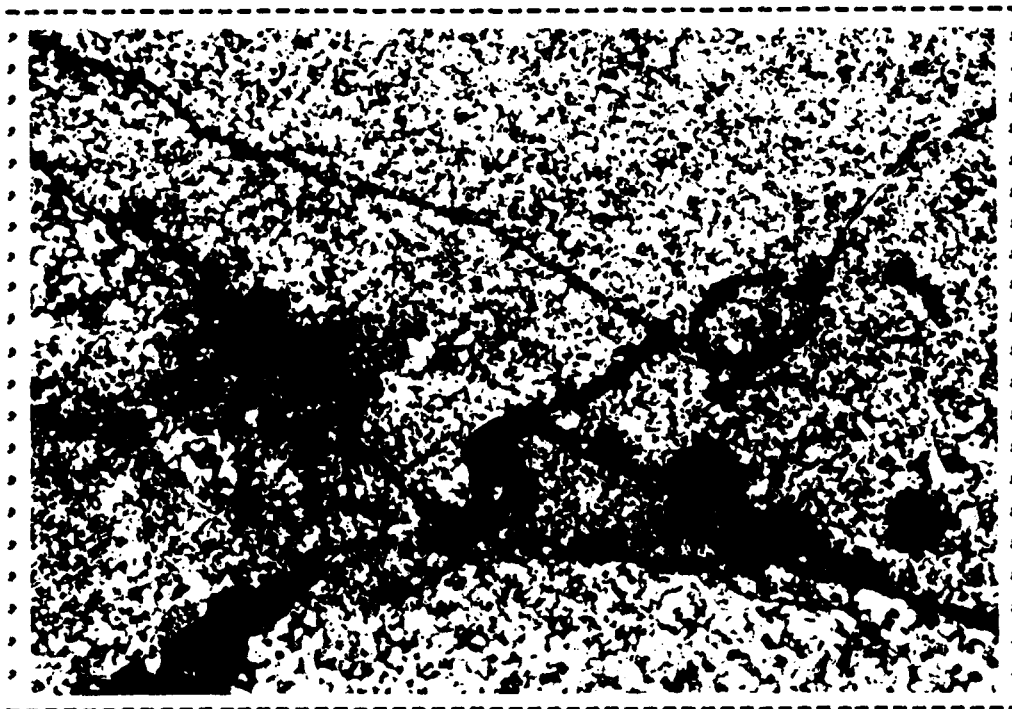


Photo Description: A fine grained matrix of quartz and minor sericite contains replacements and veinlets of dark goethite; crossed polars, transmitted light; photo width $\langle \rangle$ = 2.3 mm

Sample description: Hand Sample: A rusty weathering, aphanitic, silicified rock with abundant pyrite

Thin Section: Originally an aphanitic rhyolite which is now almost completely altered to a fine groundmass of quartz and sericite; goethite and pyrite are the only other major phases which are present

Analytical Results:

SiO ₂ :	77.1 %	H ₂ O:	0.3 %
TiO ₂ :	.10 %	CO ₂ :	0.1 %
Al ₂ O ₃ :	4.8 %		
Fe ₂ O ₃ :	12.7 %	Anomalies:	S 3.5 % , Au 47 ppb, Ag 14.1 ppm,
MnO:	.08 %		
MgO:	.1 %		Mo 6.4 ppm, As 1560 ppm, Sb 3.4 ppm, Te .08 ppm
CaO:	0.13 %		
Na ₂ O:	0.4 %	Dominant Alteration:	V 35 ppm
K ₂ O:	0.27 %		
P ₂ O ₅ :	.40 %	Silicification; sericite; oxidation	

Sample Number 9033

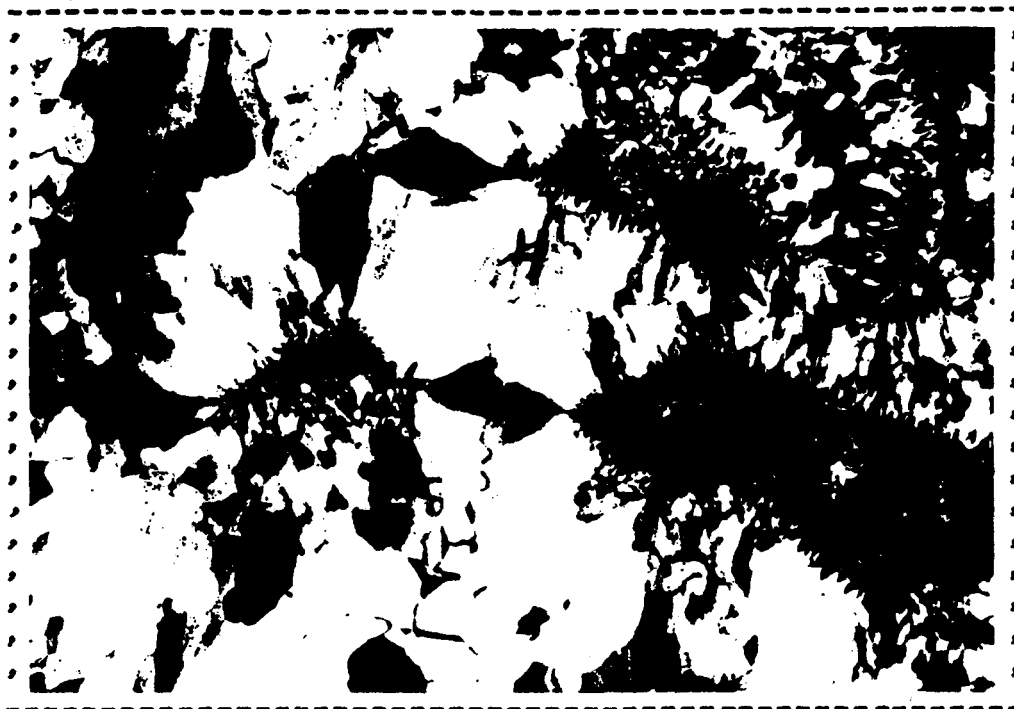


Photo Description: Brecciated and silicified rock fragments exhibit cockade texture of quartz crystal growth; crossed polars, transmitted light; photo width $\langle \rangle$ = 2.3 mm

Sample description: Hand Sample: A rusty weathering, aphanitic, silicified rock with abundant interwoven quartz veinlets

Thin Section: Silicification in the form of quartz veining, minor chalcedony veining and quartz replacement is the predominant feature; both brecciation and fracture veining are common; adularia occurs as replacements and small vein crystals

Analytical Results:

SiO ₂ :	80.9 %	H ₂ O:	1.0 %
TiO ₂ :	.07 %	CO ₂ :	0.1 %
Al ₂ O ₃ :	10.5 %		
Fe ₂ O ₃ :	1.0 %	Anomalies:	
MnO:	.01 %		
MgO:	.0 %	Mo	5.0 ppm
CaO:	0.14 %		
Na ₂ O:	1.9 %	Dominant Alteration:	
K ₂ O:	5.08 %		
P ₂ O ₅ :	.00 %	Silicification; brecciation	

Sample Number 9033



Photo Description: Tiny sub-parallel veinlets of quartz and chalcedony intersect a k-feldspar phenocryst which may be of hydrothermal origin; crossed polars, transmitted light; photo width <> = 2.3 mm

Sample Number 9034

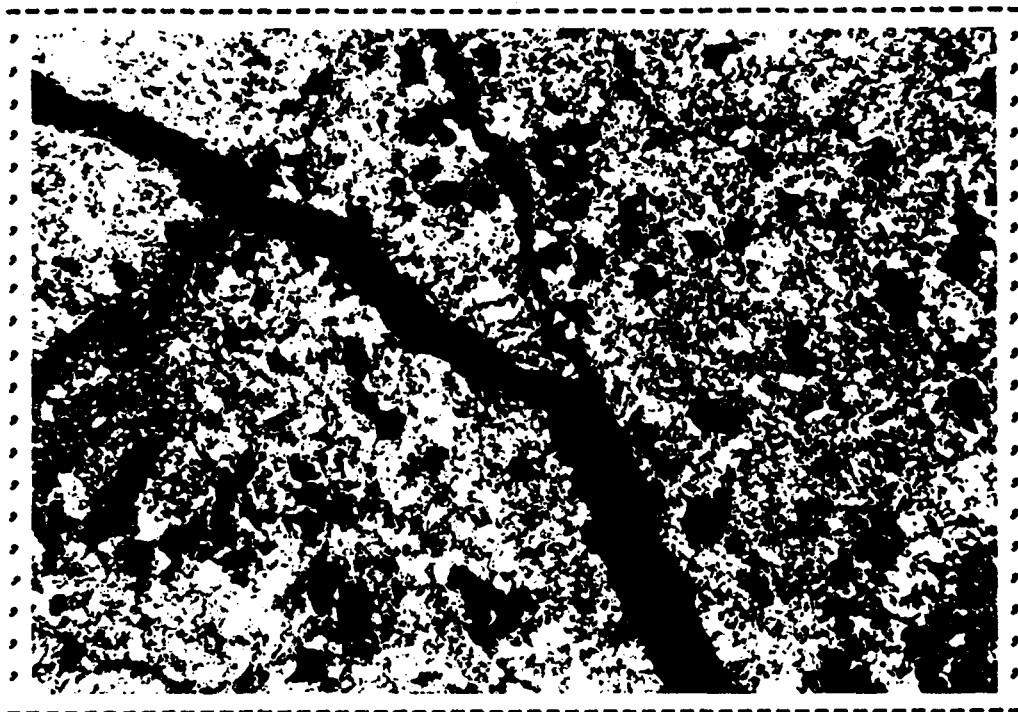


Photo Description: Chalcedony and goethite veinlets cut a fine silicified matrix of quartz, muscovite and kaolinite(?); pyrite is also present; crossed polars, transmitted light; photo width <> = 2.3 mm

Sample description: Hand Sample: A completely silicified rock with rusty encrustations of chalcedony and fine pyrite

Thin Section: Silicification in the form of minor chalcedony veining and quartz replacement is the predominant feature; a very featureless rock in thin section; disseminated pyrite is present in a fine grained silicified matrix

Analytical Results:

SiO ₂ :	80.9 %	H ₂ O:	4.2 %
TiO ₂ :	.19 %	CO ₂ :	0.7 %
Al ₂ O ₃ :	10.5 %		
Fe ₂ O ₃ :	2.7 %	Anomalies:	
MnO:	.09 %		
MgO:	.0 %	Mo	13.8 ppm, Sb 5.8 ppm, Hg 55 ppb, V 22 ppm
CaO:	0.14 %		
Na ₂ O:	0.0 %	Dominant Alteration:	
K ₂ O:	0.38 %		
P ₂ O ₅ :	.17 %	Silicification	

Sample Number 9035



Photo Description: Shattered quartz phenocrysts occur in a breccia matrix of quartz, sericite, goethite, carbonate and fluorite; crossed polars, transmitted light; photo width <> = 2.3 mm

Sample description: Hand Sample: A rusty weathering fractured and altered volcanic rock with fluorite veinlets

Thin Section: Brecciation is the dominant textural fabric as shown in the above photo; very minor pyrite is present but goethite is common; a hydrothermal breccia

Analytical Results:

SiO ₂ :	74.1 %	H ₂ O:	3.0 %
TiO ₂ :	.28 %	CO ₂ :	0.6 %
Al ₂ O ₃ :	8.7 %		
Fe ₂ O ₃ :	3.2 %	Anomalies:	Sb 12.3 ppm, V 26 ppm
MnO:	.08 %		
MgO:	.1 %		Mo 5.4 ppm, F 4.6 %, Ba 2100 ppm, Hg 165 ppb
CaO:	8.09 %		
Na ₂ O:	0.0 %	Dominant Alteration:	
K ₂ O:	0.58 %		
P ₂ O ₅ :	.19 %		Silicification; brecciation; sericite; goethite

Sample Number 9036

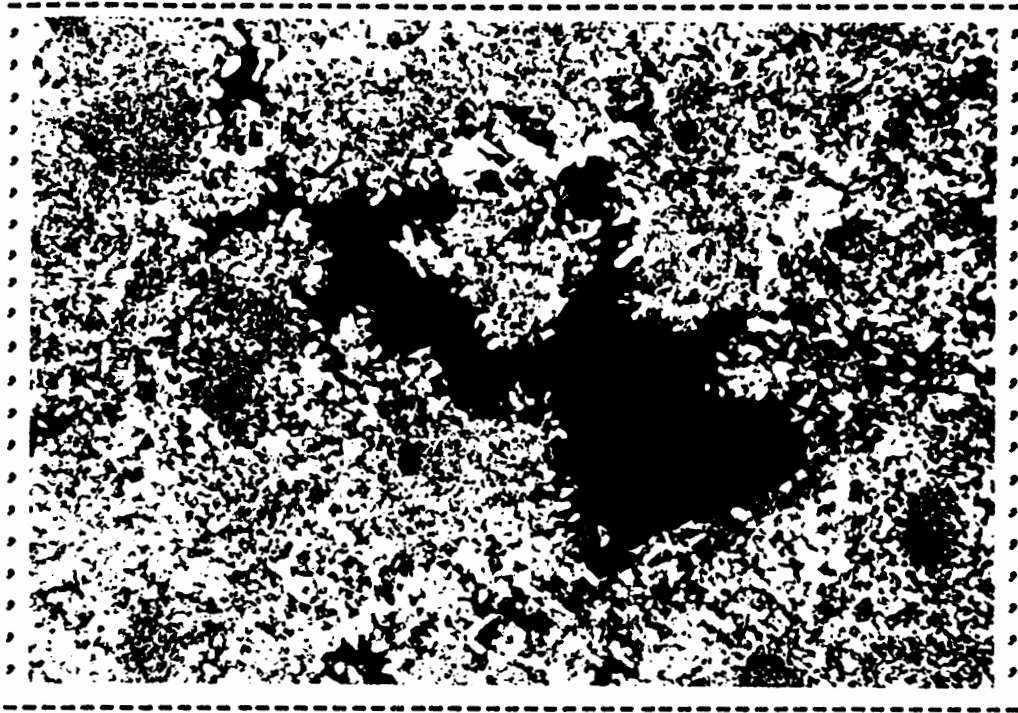


Photo Description: Euhedral quartz and minor calcite occur beside an open space filling of fluorite; crossed polars, transmitted light; photo width $\langle \rangle$ = 2.3 mm

Sample description: Hand Sample: a white piece of fine grained quartz vein material

Thin Section: Fine grained quartz makes up over 90 % of the section; minor phases are carbonate and fluorite which are interspersed throughout the rock; vein material

Analytical Results:

SiO ₂ :	95.4 %	H ₂ O:	0.6 %
TiO ₂ :	.04 %	CO ₂ :	0.3 %
Al ₂ O ₃ :	1.6 %		
Fe ₂ O ₃ :	0.5 %	Anomalies:	
MnO:	.05 %		
MgO:	.0 %	F	0.9 %
CaO:	1.10 %		
Na ₂ O:	0.3 %	Dominant Alteration:	
K ₂ O:	0.13 %		
P ₂ O ₅ :	.00 %	A quartz vein	

Sample Number 9037

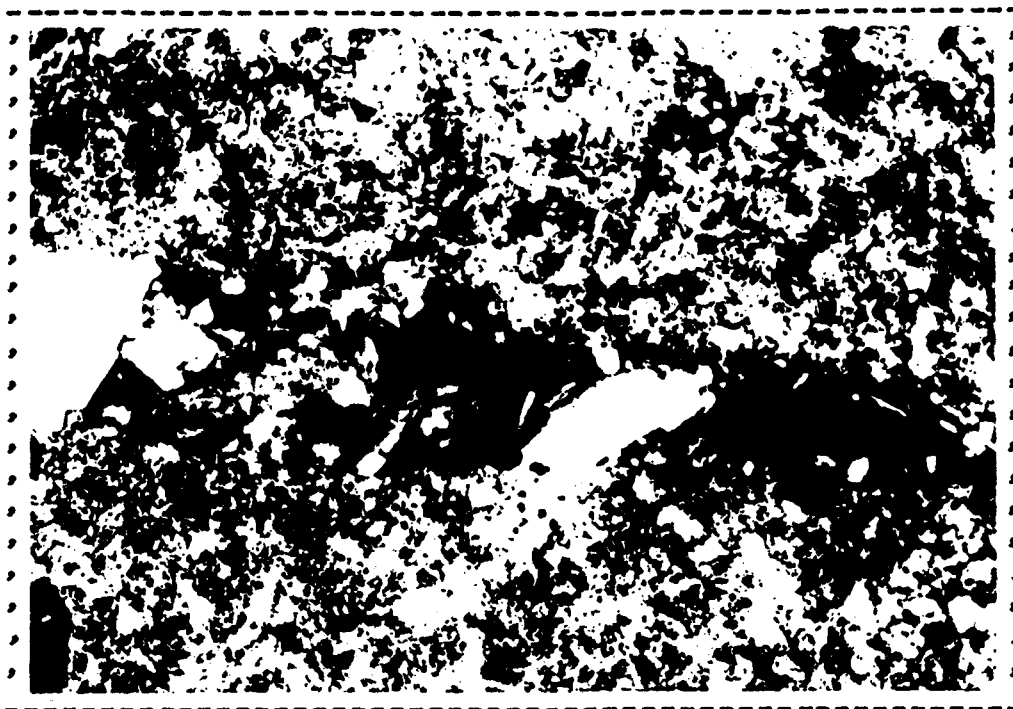


Photo Description: A tiny quartz-chalcedony-adularia veinlet with associated goethite and pyrite crosscuts a matrix of oxidized, brecciated and altered volcanic; crossed polars, transmitted light; photo width $\langle \rangle$ = 1.2 mm

Sample description: Hand Sample: An extremely friable, rusty, and completely altered volcanic rock with abundant fine grained pyrite

Thin Section: Angular mineral fragments are set in a fine grained matrix of quartz, sericite and kaolinite(?); numerous tiny quartz veinlets crosscut the rock in stockwork fashion; adularia is a minor vein constituent; pyrite is common and occurs preferentially in brecciated volcanic fragments

Analytical Results:

SiO ₂ :	84.8 %	H ₂ O:	2.5 %
TiO ₂ :	.48 %	CO ₂ :	0.1 %
Al ₂ O ₃ :	8.4 %		
Fe ₂ O ₃ :	1.1 %	Anomalies:	Ag 1.7 ppm, Mo 19 ppm, Ba 4100 ppm
MnO:	.00 %		
MgO:	.1 %	Pb	33 ppm, Hg 100 ppb, Sb 7.8 ppm, Te .62 ppm
CaO:	0.18 %		
Na ₂ O:	0.0 %	Dominant Alteration:	
K ₂ O:	1.47 %		
P ₂ O ₅ :	.18 %	Silicification;	brecciation

Sample Number 9038

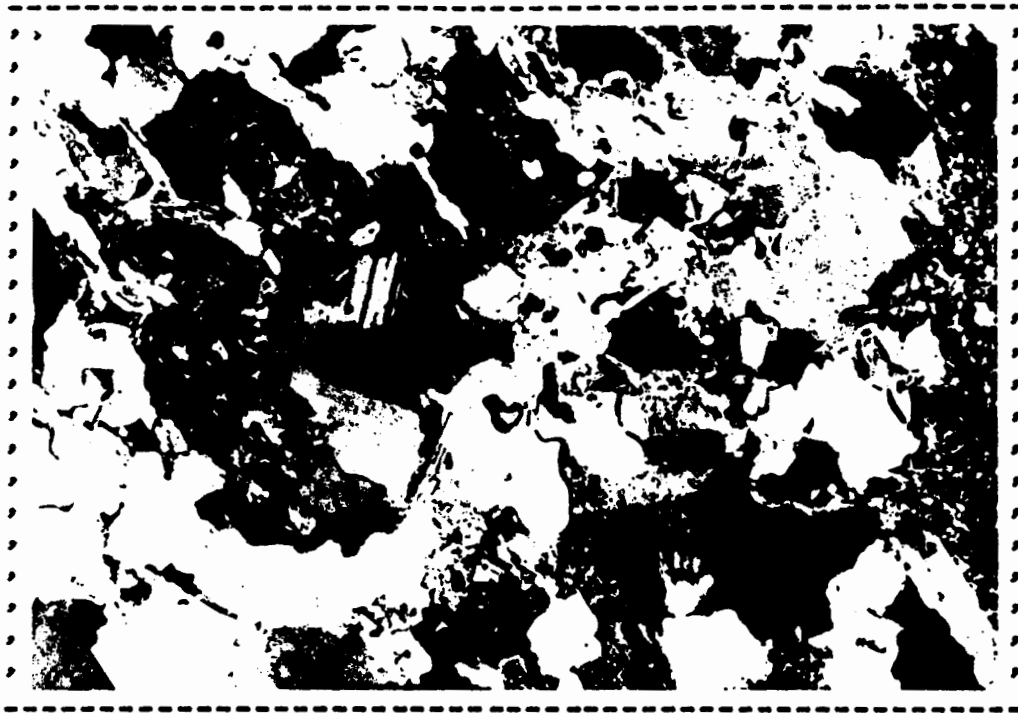


Photo Description: A section of a replacement veinlet of quartz, adularia and muscovite; crossed polars, transmitted light; photo width $\langle \rangle$ = 1.2 mm

Sample description: Hand Sample: An extremely friable, rusty, and completely altered volcanic rock

Thin Section: An extensively oxidized, fine grained, porphyritic pyroclastic rock; hairline fractures are filled with goethite; replacement veinlets are coarser grained than the matrix of fine quartz and sericite

Analytical Results:

SiO ₂ :	70.1 %	H ₂ O:	1.6 %
TiO ₂ :	.36 %	CO ₂ :	0.1 %
Al ₂ O ₃ :	14.4 %		
Fe ₂ O ₃ :	4.3 %	Anomalies:	
MnO:	.03 %		
MgO:	.1 %	None	
CaO:	0.25 %		
Na ₂ O:	4.3 %	Dominant Alteration:	
K ₂ O:	4.11 %		
P ₂ O ₅ :	.18 %	Silicification; sericite	

Sample Number 9045

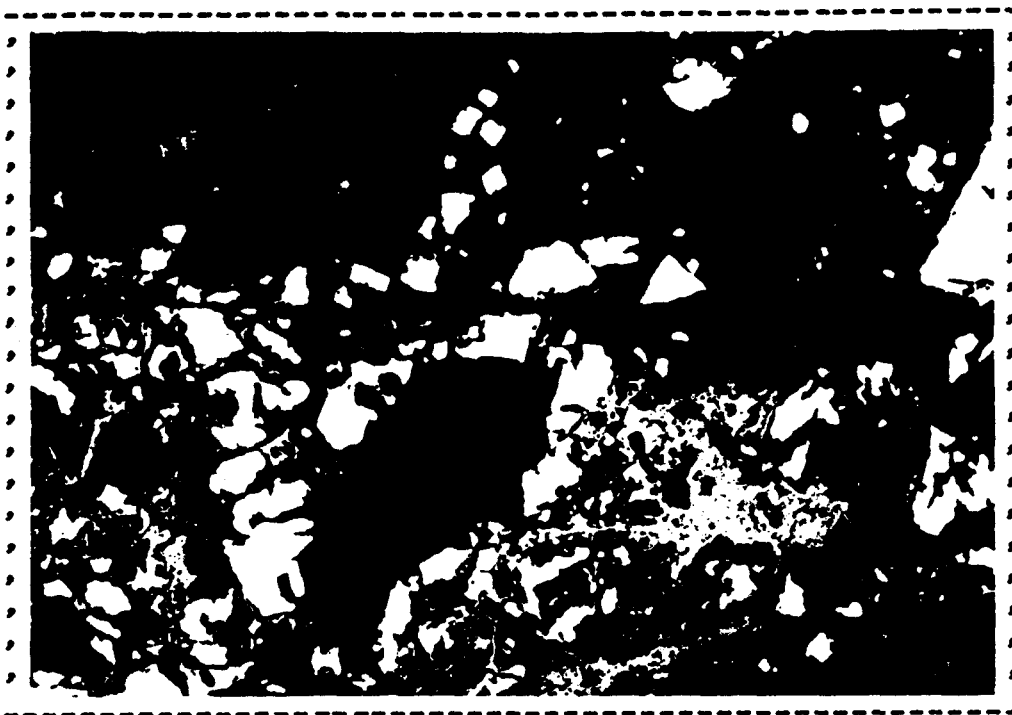


Photo Description: A thin breccia veinlet containing arsenopyrite, quartz, covellite and scorodite; large dark area is a vug; crossed polars, transmitted light; photo width <> = 0.6 mm

Sample description: Hand Sample: A greenish weathering altered volcanic rock with thin arsenopyrite veinlets

Thin Section: Quartz and unidentified phyllosilicates occur as a fine grained groundmass in this highly altered lapilli tuff; minor silicification has occurred as quartz stringers and replacements; a variety of primary and secondary ore minerals are present which include arsenopyrite, covellite, sphalerite (with chalcopyrite inclusions), galena, pyrite, scorodite and proustite/pyargarite(?) which is too fine grained to positively identify by optical methods

Analytical Results:

SiO ₂ :	75.2 %	H ₂ O:	2.9 %
TiO ₂ :	.33 %	CO ₂ :	0.2 %
Al ₂ O ₃ :	11.4 %		
Fe ₂ O ₃ :	3.6 %	Anomalies:	Au 254 ppb, Ag 821 ppm, As >3500 ppm
MgO:	.4 %		Ba 3100 ppm, Mo 4.5 ppm, Pb 6650 ppm, Cu 273 ppm
CaO:	0.08 %		Hg 85 ppb, W 50 ppm, Sb 124 ppm, Zn 810 ppm,
Na ₂ O:	0.0 %		Cd 16.7 ppm
K ₂ O:	3.60 %		

Dominant alteration: Silicification; bleaching

FREQUENCY DISTRIBUTION
 FILE: CHEMDATA2 VAR: AU2 (R)

CLASS LIMITS	FREQUENCY	%	CUM%	CUM%
0	12	36.3	36.3	100
.102098594	3	9	45.4	63.6
.204197189	1	3	48.4	54.5
.306295783	1	3	51.5	51.5
.408394378	4	12.1	63.6	48.4
.510492972	1	3	66.6	36.3
.612591567	3	9	75.7	33.3
.714690161	2	6	81.8	24.2
.816788756	0	0	81.8	18.1
.91888735	2	6	87.8	18.1
1.02098594	1	3	90.9	12.1
1.12308454	0	0	90.9	9
1.22518313	1	3	93.9	9
1.32728173	0	0	93.9	6
1.42938032	2	6	100	6
1.53147892				

FREQUENCY DISTRIBUTION
 FILE: CHEMDATA2 VAR: AU3 (R)

CLASS LIMITS	FREQUENCY	%	CUM%	CUM%
0	4	12.1	12.1	100
.153975344	5	15.1	27.2	87.8
.307950689	0	0	27.2	72.7
.461926033	2	6	33.3	72.7
.615901378	1	3	36.3	66.6
.769876722	3	9	45.4	63.6
.923852067	2	6	51.5	54.5
1.07782741	6	18.1	69.6	48.4
1.23180276	5	15.1	84.8	30.3
1.3857781	0	0	84.8	15.1
1.53975344	1	3	87.8	15.1
1.69372879	1	3	90.9	12.1
1.84770413	1	3	93.9	9
2.00167948	0	0	93.9	6
2.15565482	2	6	100	6
2.30963017				

Correlation Coefficients: The following elemental associations

 have been established based on calculated correlation
 coefficients for both rock and soil samples.

Rocks:

Element =====	Corr. Coeff. > .5 =====	.5 < Corr. Coeff. > .3 =====
Au	Ag, Pb, Sb	Zn, Cu, Cd, Bi, W, As, Se
Ag	Au, Zn, Cu, Pb, Cd, Sb, W, As, Se	
Hg	Se	F, V, Te, Sb
F		Hg, Se
S	V, Sc, As	Cu, Co, Fe
Co	Sc, V	Fe, Mn, S
Mn		Co, Fe
Fe	V, Sc	S, Co, Mn, Eu
Mo	-----	-----
Te		Hg
Bi		Cs, Au
Ba		W, As
As	Cr, W, S, Zn, Cu, Pb, Ag, Cd, Sb	Au, V, Ba, Sc, Se
W	Zn, Cu, Pb, Ag, Cd, Sb, As, Se	Au, Ni

Soils: (Based on the -250 mesh fraction)

Element =====	Corr. Coeff. > .6 =====	.6 < Corr. Coeff. > .4 =====
Au	Co	Fe, As, Mo, Cd
Co	Fe, Au	As, Cd, Sb
Fe	Co, As	Cd, Sb, Au
Zn		Cd
As	Fe, Co, Sb	Cd, Mo, Au
Mo		Co, As, Sb, Au, Cd
Cd		Fe, Co, Zn, As, Mo, Sb

In general, soils show much less correlation than do rocks.
 This is to be expected as rock samples are very site and
 environment specific whereas soils are a mixture of various
 geological "environments". The siderophile tendency of Au,
 however, is apparant for soils in this region. This may reflect
 an association with sulphur content which, unfortunately, was not

APPENDIX E

REGRESSION ANALYSIS RESULTS

FILE: CHEMDATA2

AU1 (R) = 1.38134328
+.717135638 * AU3

STAND. DEV. OF RESIDUALS: 10.1820624
COEFF. OF DETERMINATION : .9525125

NO.	OBSERVED	RESIDUAL
054	170	22.3229865
5055	10	-2.8555135
5056	9	-2.42124222
057	45	28.5588083
5058	12	-3.72405605
5059	23	4.4074014
060	7	-5.8555135
062	21	2.4074014
5063	10	-.70410658
5064	38	3.63041735
065	7	-.118428389
5066	9	-.269835304
5067	73	11.3792631
068	6	-.401292751
069	77	-31.9516891
5071	9	-6.72405605
072	6	3.54295326
5073	3	.542953261
5074	16	6.01302906
5075	5	.750114165
5076	6	3.90152108
5077	.5	-1.59847892
5078	4	.467249803
5079	1	-1.09847892
5080	5	2.54295326
5082	4	-.967021473
5083	3	-2.68415711
5084	3	.542953261
5085	20	-21.540939
5086	5	-2.83556403
5087	4	-6.70410658
5088	2	-.0984789198
5089	4	1.54295326

FILE: CHEMDATA2

AU2 (R) = 1.22830427
+.176132864 * AU3

STAND. DEV. OF RESIDUALS: 2.84655274
COEFF. OF DETERMINATION : .939719343

NO.	OBSERVED	RESIDUAL
5054	34	-3.1594085
5055	4	-.046430096
5056	3	-.694164368
5057	6	1.07290559
5058	3	-1.75096155
5059	12	6.54450699
5060	6	1.9535699
5062	2	-3.45549301
5063	1.5	-2.0180315
5064	18	8.66958399
5065	1	-1.63736719
5066	5	1.83423422
5067	10	-6.02346484
5068	5	2.53876568
5069	33	5.35176615
5071	5	.249038449
5072	3	1.50749643
5073	1	-.49250357
5074	2.5	-.841898641
5075	1.5	-.432835729
5076	1	-.404437138
5077	1	-.404437138
5078	1	-.756702865
5079	3	1.59556286
5080	1.5	7.49643007E-03
5082	1	-1.10896859
5083	1	-1.28510146
5084	1	-.49250357
5085	10	-1.09174465
5086	1	-1.81350005
5087	1	-2.5180315
5088	1	-.404437138
5089	1	-.49250357

FILE: CHEMDATA2

AU3 (R) = -3.33256573
+5.0136722 * AU2

STAND. DEV. OF RESIDUALS: 15.1871752
COEFF. OF DETERMINATION : .939719343

O.	OBSERVED	RESIDUAL
5054	204	36.8677108
5055	16	-.722123094
5056	14	2.29154911
5057	21	-5.7494675
5058	20	8.29154912
5059	24	-32.8315007
5060	16	-10.7494675
5062	24	17.3052213
5063	13	8.81205742
5064	46	-40.913534
5065	8	6.31889353
5066	11	-10.7357953
5067	84	37.1958437
5068	7	-14.7357953
5069	150	-12.1186171
5071	20	-1.7357953
5072	1.5	-10.2084509
5073	1.5	-.181106479
5074	12	2.79838521
5075	4	-.187942581
5076	1	-.681106479
5077	1	-.681106479
5078	3	1.31889352
5079	1	-10.7084509
5080	1.5	-2.68794258
5082	5	3.31889352
5083	6	4.31889352
5084	1.5	-.181106479
5085	56	9.19584368
5086	9	7.31889353
5087	13	11.3188935
5088	1	-.681106479
5089	1.5	-.181106479

FILE: CHEMDATA2

AU3 (R) = 27.2667844
-.0139995361 * AS3
-1.27830401 * SB3

STAND. DEV. OF RESIDUALS: 44.961232
COEFF. OF DETERMINATION : .0908719523

NO.	OBSERVED	RESIDUAL
5054	204	178.944662
5055	16	-5.50659765
5056	14	-.995743025
5057	21	-1.8482381
5058	20	-.736042179
5059	24	-.0248762071
5060	16	-8.47329599
5062	24	-.591518886
5063	13	-12.0291737
5064	46	20.7869978
5065	8	-15.8031986
5066	11	-14.5041926
5067	84	57.8818546
5068	7	-19.7218639
5069	150	123.751224
5071	20	-5.22410575
5072	1.5	-24.2261584
5073	1.5	-23.7541316
5074	12	1.74363512
5075	4	-9.02711553
5076	1	-25.6742655
5077	1	-25.9887244
5078	3	-22.9142829
5079	1	-24.9072831
5080	1.5	-23.9229952
5082	5	-21.3458071
5083	6	-19.8381547
5084	1.5	-25.0310356
5085	56	29.9518523
5086	9	-17.2725749
5087	13	-13.6490664
5088	1	-25.7012993
5089	1.5	-24.3484851

FILE: CHEMDATA2

AS2 (R) = -.565645556
+.825167551 * AS3

STAND. DEV. OF RESIDUALS: 6.24521929
COEFF. OF DETERMINATION : .985145556

FILE: CHEMDATA2

SB2 (R) = .0787381656
+.786482746 * SB3

STAND. DEV. OF RESIDUALS: .600990897
COEFF. OF DETERMINATION : .966608926

NO.	OBSERVED	RESIDUAL
054	23	6.23712698
5055	70.5	-12.2762771
5056	62.4	2.72841434
5057	90.2	-18.9816387
5058	47	1.68632972
5059	100	-.104795665
5060	91.1	9.89154125
5062	31	-5.56689423
5063	26	.160283923
5064	30	7.46095413
5065	7.2	-.486029955
5066	8	2.62443919
5067	7.7	.839137597
5068	2	.585243434
5069	6.5	-.195828892
5071	46	1.51149727
5072	23	-6.96555383
5073	6.6	1.55450621
5074	152	16.4129996
5075	16	-9.01454853
5076	3.2	-1.02032624
5077	.8	.045377475
5078	4.2	.392257535
5079	4	-.220326239
5080	10	-.161532607
5082	10	1.4888025
5083	29	5.63578658
5084	5.8	.671989456
5085	12	1.01329984
5086	5.3	6.95594587E-03
5087	4.5	-1.20562783
5088	6.6	-3.56153261
5089	6.5	-1.18602995

NO.	OBSERVED	RESIDUAL
5054	1.8	.541537715
5055	3.8	1.0472205
5056	8.4	1.40021367
5057	1.5	-.151703658
5058	2.4	-1.21791052
5059	1.1	.0774825388
5060	1	.0561308134
5062	1.4	.0628894405
5063	1.3	.120185989
5064	1.2	.0988342646
5065	2	-.123593305
5066	1.5	.398834264
5067	.7	-7.92436255E-03
5068	.3	-.093331264
5069	.5	-.129276088
5071	.9	.0347790881
5072	.6	-.107924362
5073	1.2	-.058462285
5074	10.2	1.07671025
5075	6.4	-2.17275182
5076	.2	-.193331264
5077	.05	-.186034715
5078	.8	-.0652209118
5079	.8	-.0652209118
5080	1.3	.198834264
5082	.4	-.150627813
5083	.8	.0920756375
5084	.4	-.0719795387
5085	.7	-7.92436255E-03
5086	.6	-.0292760879
5087	.3	-.093331264
5088	.2	-.114682989
5089	.7	-.165220912

FILE: CHEMDATA2

AU3 (R) = 26.2398648
- .0583949634 * AS3

STAND. DEV. OF RESIDUALS: 44.3414348
COEFF. OF DETERMINATION : .0597082001

NO.	OBSERVED	RESIDUAL
5054	204	178.986429
5055	16	-4.34197353
5056	14	-7.9770325
5057	21	2.5266653
5058	20	-2.99310486
5059	24	4.88432071
5060	16	-4.45292395
5062	24	.387908526
5063	13	-11.371226
5064	46	21.3951941
5065	8	-17.6559152
5066	11	-14.8194211
5067	84	58.2856898
5068	7	-19.0997169
5069	150	124.274011
5071	20	-3.05149983
5072	1.5	-22.5792512
5073	1.5	-24.3427791
5074	12	-4.60469587
5075	4	-20.429621
5076	1	-24.901174
5077	1	-25.1464329
5078	3	-22.9303715
5079	1	-24.901174
5080	1.5	-23.9807303
5082	5	-20.5975202
5083	6	-18.5464109
5084	1.5	-24.3369396
5085	56	30.5776647
5086	9	-16.8252606
5087	13	-12.7960631
5088	1	-24.4807303
5089	1.5	-24.1559152

FILE: CHEMDATA2

AU3 (R) = 26.9944184
-1.38862808 * SB3

STAND. DEV. OF RESIDUALS: 44.2331399
COEFF. OF DETERMINATION : .0916986965

NO.	OBSERVED	RESIDUAL
5054	204	179.088524
5055	16	-6.27308291
5056	14	-.774491273
5057	21	-3.21716223
5058	20	-.74559202
5059	24	-1.32806469
5060	16	-9.4669275
5062	24	-.772613458
5063	13	-12.0503391
5064	46	20.8107981
5065	8	-15.3839854
5066	11	-14.1892019
5067	84	58.1164841
5068	7	-19.4389672
5069	150	123.977621
5071	20	-5.60579031
5072	1.5	-24.3835159
5073	1.5	-23.4114763
5074	12	.974804547
5075	4	-7.99723511
5076	1	-25.4389672
5077	1	-25.7166928
5078	3	-22.6057903
5079	1	-24.6057903
5080	1.5	-23.6892019
5082	5	-21.1612415
5083	6	-19.8835159
5084	1.5	-24.8001044
5085	56	30.1164841
5086	9	-17.0223787
5087	13	-13.4389672
5088	1	-25.57783
5089	1.5	-24.1057903

APPENDIX F

GEOCHEMICAL RESULTS



REPORT: 016-5530

PROJECT: 23233-6-0860/01

PAGE 1A

SAMPLE NUMBER	ELEMENT UNITS	Sc PPM	Cr PPM	Fe PCT	Co PPM	Ni PPM	Zn PPM	As PPM	Se PPM	Rb PPM	Mo PPM	Ag PPM
5054B A		12.0	51	3.9	9	<20	<100	24.0	<5	140	15	<2
5055B A		11.0	<20	3.4	8	<20	<100	92.8	<5	150	30	<2
5056B A		13.0	20	3.5	6	<20	<100	66.1	<5	120	55	<2
5057B A		16.0	24	4.9	7	<20	120	102.0	<5	110	6	<2
5058B A		21.0	<20	6.7	7	<20	160	54.4	<5	95	42	<2
5059B A		18.0	26	4.9	6	<20	140	112.0	<5	110	10	<2
5060B A		16.0	<20	4.4	6	<20	110	91.1	<5	110	8	<2
5061B A		2.1	<20	1.6	<5	<20	210	7.9	<5	110	14	<2
5062B A		14.0	42	3.8	11	25	550	39.0	<5	150	10	<2
5063B A		17.0	56	4.8	9	<20	160	29.0	<5	110	8	<2
5064B A		14.0	46	3.4	8	23	490	25.0	<5	89	13	<2
5065B A		2.2	<20	1.5	<5	<20	190	8.1	<5	110	13	<2
5066B A		13.0	45	4.4	9	<20	160	7.5	<5	140	7	<2
5067B A		12.0	43	3.9	7	<20	<100	8.0	<5	120	5	<2
5068B A		5.4	22	0.7	<5	<20	<100	2.6	<5	79	4	<2
5069B A		6.4	<20	2.6	<5	<20	110	1.8	<5	95	9	<2
5070B A		15.0	500	5.3	32	300	130	32.0	<5	140	4	<2
5071B A		9.1	26	3.8	8	<20	300	33.2	<5	160	6	<2
5072B A		9.2	41	3.4	5	<20	300	50.0	<5	130	6	<2
5073B A		5.4	50	1.8	<5	<20	320	8.3	<5	110	6	<2
5074B A		12.0	100	3.9	11	47	200	151.0	<5	260	7	<2
5075B A		7.6	54	3.0	7	<20	150	29.0	<5	200	2	<2
5076B A		3.8	50	2.1	<5	<20	150	4.0	<5	100	3	<2
5077B A		2.3	<20	0.4	<5	<20	<100	1.2	<5	90	2	<2
5078B A		8.5	21	2.8	5	<20	<100	4.2	<5	110	5	<2
5079B A		9.0	<20	2.9	<5	<20	140	5.3	<5	110	3	<2
5080B A		13.0	23	3.5	8	<20	<100	12.0	<5	94	4	<2
5081B A		12.0	<20	3.9	10	<20	250	13.0	<5	130	4	<2
5082B A		7.4	<20	2.1	<5	<20	<100	3.8	<5	80	3	<2
5083B A		6.5	24	2.5	5	<20	250	21.0	<5	170	15	<2
5084B A		9.0	24	2.5	<5	<20	440	5.0	<5	140	5	<2
5085B A		12.0	31	3.7	9	<20	240	13.0	<5	130	3	<2
5086B A		11.0	<20	3.1	5	<20	<100	5.5	<5	100	4	<2
5087B A		6.7	30	2.1	<5	<20	140	5.6	<5	110	3	<2
5088B A		5.9	<20	3.5	<5	<20	<100	9.2	<5	110	3	<2
5089B A		6.7	36	2.7	<5	<20	<100	3.4	<5	130	2	<2
5054C A		12.0	<20	4.1	9	<20	<100	22.0	<5	140	11	<2
5055C A		9.1	<20	2.8	7	<20	110	70.5	<5	120	30	<2
5056C A		15.0	30	3.9	7	<20	<100	62.4	<5	120	46	<2
5057C A		14.0	<20	4.5	8	<20	100	90.2	<5	110	5	<2



REPORT: 016-5590

PROJECT: 23233-6-0860/01

PAGE 15

SAMPLE NUMBER	ELEMENT UNITS	Cd PPM	Sb PPM	Ca PPM	Ba PPM	La PPM	Eu PPM	Tb PPM	Yb PPM	Hf PPM	Ta PPM	W PPM
50545 A		<5	1.7	8.4	1600	53	3	1.3	3	6	1.0	3
50559 A		<5	3.8	15.0	1100	57	3	1.2	3	4	0.9	2
50562 A		<5	8.4	7.9	540	57	2	0.8	3	4	0.7	5
50572 A		<5	1.7	6.5	3200	49	3	1.1	4	7	1.0	4
50569 A		<5	2.6	3.6	1700	79	5	1.8	4	7	1.2	3
50598 A		<5	1.0	8.9	1800	49	3	1.2	4	6	0.8	3
50602 A		<5	1.1	6.8	1800	41	3	0.7	4	7	1.1	4
50613 A		<5	2.2	5.3	200	68	<1	2.8	3	11	3.4	1
50632 A		9	1.5	15.0	1000	110	3	2.2	6	7	1.3	3
50638 A		<5	1.3	12.0	1700	62	4	1.3	4	6	1.0	4
50648 A		15	1.2	7.9	1400	36	3	1.0	4	6	1.0	3
50652 A		<5	2.3	4.7	360	71	<1	2.6	3	11	3.3	<1
50661 A		<5	1.3	12.0	1200	71	5	1.7	5	8	1.6	5
50672 A		<5	0.2	9.1	1300	64	2	1.2	3	3	1.2	3
50683 A		<5	0.3	5.0	1100	22	<1	<0.5	<2	8	1.6	2
50693 A		<5	0.6	7.5	1600	44	2	0.6	<2	7	1.2	5
50708 A		<5	1.5	5.7	770	33	2	1.1	4	6	2.2	19
50712 A		<5	1.0	18.0	1300	120	3	2.5	5	10	1.9	2
50722 A		<5	0.8	11.0	910	160	<1	2.7	5	11	2.1	<1
50732 A		<5	1.5	10.0	410	110	<1	5.0	8	9	2.0	2
50743 A		<5	10.3	40.0	640	66	4	1.0	2	4	1.3	3
50752 A		<5	10.4	24.0	420	30	2	0.7	2	7	2.3	6
50762 A		<5	0.2	3.9	560	41	<1	0.7	3	15	1.9	6
50772 A		<5	<0.1	1.8	970	25	1	<0.5	<2	6	1.0	1
50783 A		<5	0.3	4.1	1200	36	2	1.2	4	7	1.5	1
50792 A		<5	0.9	3.5	1600	44	2	0.9	4	9	1.3	3
50802 A		<5	1.3	5.2	1400	64	2	1.5	4	8	1.4	3
50812 A		<5	0.7	9.1	1600	12	<1	0.8	3	6	1.2	4
50822 A		<5	0.5	2.2	1700	10	2	0.8	3	5	1.1	1
50832 A		<5	0.2	2.3	970	19	<1	<0.5	2	4	1.4	3
50842 A		<5	0.4	7.3	1400	25	<1	0.7	2	5	1.4	3
50852 A		<5	0.7	9.0	1500	43	<1	0.7	3	7	1.2	1
50862 A		<5	0.3	5.3	2000	33	2	0.9	3	7	1.2	3
50872 A		<5	0.2	5.7	1000	52	1	0.6	3	14	1.9	2
50882 A		<5	0.3	5.8	1100	75	<1	<0.5	3	9	1.6	5
50892 A		<5	0.3	17.0	1200	11	<1	0.3	3	7	1.5	3
50942 A		<5	1.6	5.3	1700	36	3	0.9	3	5	1.2	2
50952 A		<5	3.3	11.0	870	41	2	0.9	3	1	0.8	<1
50962 A		<5	2.4	8.4	830	35	3	1.2	3	5	1.0	3
50972 A		<5	1.5	5.3	2200	41	2	0.9	3	6	1.0	2



REPORT: 012-0550

PROJECT: 22223-6-0860/01

PAGE 10

SAMPLE NUMBER	ELEMENT UNITS	Ir PPB	Au PPB	Th PPM	U PPM	WT g
------------------	------------------	-----------	-----------	-----------	----------	---------

5054B A		<50	170	14.0	5.6	7.16
5055B A		<50	10	14.0	5.2	6.22
5056B A		<50	9	10.0	5.0	6.75
5057B A		<50	45	14.0	5.5	7.48
5058B A		<50	12	16.0	8.3	7.00

5059B A		<50	23	14.0	7.5	7.17
5060B A		<50	7	14.0	6.8	6.45
5061B A		<50	6	36.2	31.9	7.09
5062B A		<50	21	21.5	9.3	6.50
5063B A		<50	10	14.0	11.0	6.20

5064B A		<50	33	11.0	5.5	6.42
5065B A		<50	8	33.3	33.9	5.76
5066B A		<50	9	21.2	11.0	6.45
5067B A		<50	73	19.0	8.3	7.38
5068B A		<50	6	8.9	6.5	6.41

5069B A		<50	77	15.0	10.0	7.61
5070B A		<50	10	13.0	14.0	9.40
5071B A		<50	7	29.8	16.0	6.23
5072B A		<50	5	23.9	14.0	6.64
5073B A		<50	3	33.9	19.0	3.45

5074B A		<50	16	20.4	12.0	6.10
5075B A		<50	5	34.4	13.0	6.30
5076B A		<50	6	20.0	7.2	7.85
5077B A		<50	42	10.0	2.7	8.92
5078B A		<50	4	16.0	6.6	6.44

5079B A		<50	42	17.0	6.2	7.53
5080B A		<50	5	15.0	3.1	7.83
5081B A		<50	20	15.0	6.7	6.12
5082B A		<50	4	12.0	3.4	6.12
5083B A		<50	3	12.0	4.1	7.24

5084B A		<50	3	11.0	6.0	7.00
5085B A		<50	20	14.0	6.3	7.36
5086B A		<50	5	16.0	14.0	7.50
5087B A		<50	4	45.1	7.7	6.11
5088B A		<50	2	26.2	7.0	9.43

5089B A		<50	3	22.6	7.1	6.15
5090B A		<50	24	13.0	6.4	6.07
5091B A		<50	4	14.0	5.0	6.12
5092B A		<50	4	11.0	5.5	5.40
5093B A		<50	5	13.0	5.0	6.63



REPORT: 016-5589

PROJECT: 23233-6-0860/01

PAGE 2A

SAMPLE NUMBER	ELEMENT UNITS	Sc PPM	Cr PPM	Fe PCT	Co PPM	Ni PPM	Zn PPM	As PPM	Se PPM	Rb PPM	Mo PPM	Ag PPM
9037A		9.3	<20	0.8	<5	<20	<100	79.2	<5	55	23	<2
9038A												
9039A		6.7	<20	2.0	<5	<20	100	9.4	<5	21	7	<2
9040A		3.3	<20	1.8	<5	<20	160	14.0	<5	21	8	<2
9041A		20.0	<20	4.8	<5	<20	190	9.5	<5	120	7	<2
9042A		9.0	<20	2.8	<5	<20	<100	36.0	<5	140	7	<2
9043A		1.7	<20	1.0	<5	<20	130	96.1	<5	34	2	<2
9044A		4.0	<20	0.9	<5	<20	140	3.0	<5	87	3	<2
DUPLICATE												
9045A		6.0	<73	2.4	<5	<26	670	>3000.0	<14	160	5	821
9046A		0.9	<20	0.8	<5	<20	190	23.0	<5	170	2	2
9047A		13.0	<20	3.6	15	<20	140	31.0	<5	110	24	<2
9048A		19.0	<20	4.6	<5	<20	<100	10.0	<5	140	6	<2
9049A		1.3	<20	0.7	<5	<20	<100	4.3	<5	69	121	<2
9050A		15.0	510	4.9	30	270	150	30.0	<5	120	4	<2
9051A		3.6	<20	2.4	<5	<20	200	39.0	<5	150	5	<2
9052A		19.0	<66	18.0	6	<23	140	>3000.0	<13	20	10	<5
DUPLICATE												
9053A		1.5	<20	1.3	<5	<20	140	20.0	<5	160	2	<2
9055B		1.0	<20	1.2	<5	<20	120	6.4	<5	84	4	<2



REF: 016-5590

PROJECT: 23233-6-0060/01

PAGE 2A

SAMPLE NUMBER	ELEMENT UNITS	Sc PPM	Cr PPM	Fe PCT	Cu PPM	Ni PPM	Zn PPM	As PPM	Se PPM	Rb PPM	Mo PPM	Ag PPM
50580 A		13.0	<20	5.9	7	<20	<100	47.0	<5	85	37	<2
50590 A		16.0	<20	4.8	7	<20	<100	100.0	<5	110	9	<2
50600 A		15.0	26	4.6	6	<20	<100	91.1	<5	110	8	<2
50610 A		1.7	<20	0.7	<5	<20	130	7.2	<5	120	10	<2
50620 A		12.0	<20	3.6	11	<20	440	31.0	<5	160	7	<2
50630 A		16.0	23	4.4	9	<20	170	26.0	<5	120	6	<2
50640 A		14.0	23	3.4	10	<20	520	30.0	<5	87	15	<2
50650 A		1.9	<20	0.6	<5	<20	150	7.2	<5	130	11	<2
50660 A		10.0	<20	4.8	8	<20	140	8.0	<5	130	5	<2
50670 A		10.0	32	3.6	10	<20	<100	7.7	<5	120	4	<2
50680 A		4.3	<20	1.3	<5	<20	110	3.0	<5	81	3	<2
50690 A		5.1	<20	2.4	<5	<20	<100	6.5	<5	87	6	<2
50700 A		15.0	510	5.2	35	290	<100	31.0	<5	130	3	<2
50710 A		7.4	<20	3.6	<5	<20	210	46.0	<5	150	4	<2
50720 A		6.3	<20	2.9	<5	<20	230	23.0	<5	120	3	<2
50730 A		5.3	<20	1.3	<5	<20	270	6.6	<5	110	6	<2
50740 A		10.0	61	4.2	13	36	170	152.0	<5	280	3	<3
50750 A		5.0	35	1.9	<5	<20	<100	16.0	<5	310	<1	<2
50760 A		3.0	<20	0.9	<5	<20	<100	3.2	<5	100	2	<2
50770 A		2.0	<20	0.7	<5	<20	<100	0.8	<5	110	1	<2
50780 A		7.5	<20	2.6	<5	<20	<100	4.2	<5	110	5	<2
50790 A		6.9	<20	2.4	<5	<20	130	4.0	<5	110	3	<2
50800 A		11.0	<20	3.5	3	<20	<100	10.0	<5	100	3	<2
50810 A		11.0	<20	3.6	9	<20	170	11.0	<5	140	2	<2
50820 A		7.9	22	2.3	<5	<20	130	10.0	<5	92	2	<2
50830 A		6.5	24	2.6	<5	<20	200	29.0	<5	170	15	<2
50840 A		9.1	<20	2.7	7	<20	350	5.9	<5	140	4	<2
50850 A		11.0	23	3.3	10	<20	230	13.0	<5	130	3	<2
50860 A		10.0	<20	3.1	<5	<20	<100	5.3	<5	110	4	<2
50870 A		9.1	<20	2.3	5	<20	140	1.5	<5	120	<1	<2
50880 A		4.6	<20	2.6	<5	<20	<100	6.6	<5	110	3	<2
50890 A		5.4	<20	2.5	<5	<20	<100	6.5	<5	130	2	<2
50900 A		13.0	65	4.3	10	34	<100	21.0	<5	130	13	<2
50910 A		11.0	22	4.0	10	<20	<100	101.0	<5	160	31	<2
50920 A		10.0	22	3.6	7	<20	<100	72.0	<5	140	61	<2
50930 A		15.0	34	4.7	9	<20	<100	133.0	<5	110	9	<2
50940 A		17.0	<20	6.1	6	<20	140	55.0	<5	21	41	<2
50950 A		10.0	<20	4.9	7	<20	<100	122.0	<5	110	12	<2
50960 A		16.0	13	4.5	9	<20	<100	59.1	<5	100	11	<2
50970 A		2.5	<20	1.5	<5	<20	120	3.1	<5	110	13	<2



REPORT: 016-5589

PROJECT: 23233-6-0860/01

PAGE 28

SAMPLE NUMBER	ELEMENT UNITS	Cd PPM	Sb PPM	Cs PPM	Ba PPM	La PPM	Eu PPM	Tb PPM	Yb PPM	Hf PPM	Ta PPM	W PPM
9037A		<5	7.8	2.5	4100	19	<1	<0.5	<2	3	<0.5	2
9038A												
9039A		<5	13.2	1.7	2000	11	<1	0.6	<2	2	<0.5	1
9040A		<5	1.7	1.2	300	30	<1	1.2	4	8	1.1	<1
9041A		<5	0.8	3.9	3200	35	2	1.1	5	6	0.8	7
9042A		<5	3.1	2.5	1100	14	<1	0.5	3	6	0.8	2
9043A		<5	0.7	0.7	170	14	<1	0.8	5	8	1.2	<1
9044A		<5	0.8	1.3	1400	11	<1	0.6	5	8	1.1	<1
DUPLICATE												
9045A		<23	124.0	3.8	3100	38	<2	<0.5	<5	4	1.2	<107
9046A		<5	0.5	2.5	53	51	<1	1.4	5	10	1.3	<1
9047A		<5	1.1	2.1	3500	30	1	1.0	3	5	0.9	2
9048A		<5	0.7	3.1	3300	36	2	1.2	4	7	0.8	6
9049A		<5	1.5	2.5	180	4	<1	<0.5	<2	<1	<0.5	2
9050A		<5	1.4	5.0	730	31	2	1.2	6	6	2.1	18
9051A		<5	2.2	2.3	1200	22	<1	0.7	4	7	1.0	<1
9052A		<19	15.5	<0.9	460	6	<1	<0.5	<4	<2	<0.5	<11
DUPLICATE												
9053A		<5	0.4	1.8	140	7	<1	<0.5	3	2	1.2	<1
9025B		<5	1.2	1.4	640	56	<1	1.6	6	9	1.4	1



REPORT: 016-5590

PROJECT: 23233-6-0860/01

PAGE 22

SAMPLE NUMBER	ELEMENT UNITS	Cd PPM	Sb PPM	Cs PPM	Ba PPM	La PPM	Eu PPM	Tb PPM	Yb PPM	Hf PPM	Ta PPM	W PPM
50500 A		<5	2.4	2.8	1800	60	4	1.6	3	6	1.2	<1
50502 A		<5	1.1	6.7	2100	46	2	1.0	3	6	0.8	4
50500 A		<5	1.0	6.2	1900	40	3	0.9	4	6	0.8	5
50610 A		<5	2.0	3.3	270	45	<1	1.8	6	8	3.0	<1
50620 A		9	1.4	12.0	1100	96	2	2.1	5	6	1.1	<1
50630 A		<5	1.3	10.0	1700	59	5	1.1	3	6	0.9	2
50640 A		12	1.2	8.4	1600	60	3	1.2	4	5	1.0	3
50650 A		<5	2.0	2.7	300	48	<1	1.7	6	9	2.9	<1
50660 A		<5	1.5	11.0	1400	62	3	1.5	5	8	1.5	5
50670 A		<5	0.7	7.2	1500	50	2	1.0	3	6	1.3	2
50680 A		<5	0.3	4.2	1100	19	<1	<0.5	<2	5	1.1	2
50690 A		<5	0.5	6.1	1500	27	<1	<0.5	<2	4	1.0	4
50700 A		<5	1.5	5.7	740	34	2	1.1	5	6	2.4	17
50710 A		<5	0.9	15.0	1100	110	<1	1.9	4	7	1.2	2
50720 A		<5	0.6	7.9	980	120	<1	1.6	4	6	1.6	<1
50730 A		<5	1.2	7.7	540	100	<1	4.5	8	7	1.6	<1
50740 A		<5	10.2	30.0	720	32	2	0.8	<2	3	2.2	7
50750 A		<5	6.4	19.0	600	59	2	0.7	<2	5	1.6	3
50760 A		<5	0.2	2.3	920	40	2	0.5	3	10	1.9	3
50770 A		<5	<0.1	1.0	1000	31	<1	<0.5	<2	3	0.9	<1
50780 A		<5	0.8	3.5	1400	17	3	1.0	4	6	1.3	3
50790 A		<5	0.8	2.0	1600	24	<1	0.8	3	7	1.0	4
50800 A		<5	1.3	4.3	1100	32	2	1.0	3	7	1.2	3
50810 A		<5	0.7	7.2	1500	41	2	0.7	3	5	1.1	2
50820 A		<5	0.4	3.1	1700	14	2	0.7	<2	6	0.9	1
50830 A		<5	0.8	3.0	950	15	<1	<0.5	2	4	1.2	2
50840 A		<5	0.4	7.6	1510	20	<1	0.6	3	4	1.2	3
50850 A		<5	0.7	6.2	1700	11	2	0.8	3	6	1.3	4
50860 A		<5	0.6	5.0	2100	31	2	0.7	3	6	1.1	2
50870 A		<5	0.3	3.1	1100	12	1	0.7	2	5	1.9	2
50880 A		<5	0.2	3.2	1100	20	3	<0.5	<2	7	1.3	3
50890 A		<5	0.7	10.0	1200	12	2	0.8	2	5	1.2	2
50940 A		<5	1.5	3.0	1600	30	4	1.4	4	5	1.2	3
50950 A		<5	3.4	17.0	1100	14	3	1.0	3	4	0.5	1
50960 A		<5	0.3	9.3	600	30	3	1.0	2	3	0.3	5
50970 A		<5	2.0	3.0	1600	32	4	1.3	3	7	1.1	4
50980 A		<5	2.6	1.5	1600	33	4	1.3	4	3	0.6	4
50990 A		<5	1.2	10.0	1700	31	4	1.1	4	2	1.0	5
50600 A		<5	1.1	7.4	1700	11	3	0.8	2	6	1.1	4
50610 A		<5	2.4	1.0	230	77	<1	3.1	9	12	3.6	<1



REPORT: 016-5599

PROJECT: 23233-6-0860/01

PAGE 20

SAMPLE NUMBER	ELEMENT UNITS	Ir PPB	Au PPB	Th PPM	U PPM	WT g	Te PPM	Hg PPB	Bi PPM
9037A		<50	9	6.4	2.5	7.90	0.62	100	<1
9038A							IS	IS	IS
9039A		<50	4	3.9	2.1	6.62	0.02	125	<1
9040A		<50	2	18.0	5.8	6.94	<0.02	10	<1
9041A		<50	<2	13.0	4.8	6.39	<0.02	10	<1
9042A		<50	<2	18.0	6.0	7.89	0.02	5	1
9043A		<50	6	19.0	7.5	7.45	0.04	10	<1
9044A		<50	<2	19.0	5.9	7.08	0.02	10	<1
DUPLICATE								10	<1
9045A		<99	254	14.0	4.8	7.31	<0.02	85	<1
9046A		<50	3	24.9	6.4	6.62	0.02	10	<1
9047A		<50	4	10.0	3.8	7.42	0.03	10	<1
9048A		<50	<2	13.0	5.2	8.96	<0.02	10	<1
9049A		<50	3	3.2	1.7	10.23	0.02	20	<1
9050A		<50	9	13.0	14.0	10.67	0.09	30	2
9051A		<50	<2	18.0	5.1	9.81	<0.02	10	<1
9052A		<82	90	1.5	2.1	10.35	0.02	30	<1
DUPLICATE								25	<1
9053A		<50	<2	22.3	6.7	7.22	<0.02	10	<1
9054B		<50	5	23.9	19.0	7.00	0.04	10	<1



REPORT: 016-5590

PROJECT: 23233-6-0860/01

PAGE 20

SAMPLE NUMBER	ELEMENT UNITS	Ir PPB	Au PPB	Ti PPM	U PPM	WT %
50580 A		<50	<4	14.0	7.5	5.04
50590 A		<50	12	14.0	6.9	8.77
50600 A		<50	6	12.0	6.4	7.15
50610 A		<50	3	28.9	26.6	7.06
50620 A		<50	<3	20.0	10.0	5.63
50630 A		<50	<3	14.0	11.0	5.65
50640 A		<50	18	13.0	6.1	5.33
50650 A		<50	<2	29.9	26.8	6.22
50660 A		<50	5	20.0	11.0	4.79
50670 A		<50	10	18.0	6.8	7.08
50680 A		<50	5	7.7	5.0	7.18
50690 A		<50	33	13.0	8.0	7.77
50700 A		<50	5	12.0	14.0	10.21
50710 A		<50	5	23.3	17.0	5.36
50720 A		<50	3	28.0	13.0	5.66
50730 A		<50	<2	23.1	13.0	7.53
50740 A		<50	<5	16.0	11.0	4.10
50750 A		<50	<3	25.3	9.1	5.32
50760 A		<50	<2	27.5	6.4	7.04
50770 A		<50	<5	8.2	1.9	9.72
50780 A		<50	<2	11.0	6.3	7.86
50790 A		<50	3	14.0	5.3	6.91
50800 A		<50	<3	15.0	5.3	6.20
50810 A		<50	9	13.0	6.1	7.66
50820 A		<50	<2	15.0	3.6	6.48
50830 A		<50	<2	12.0	3.8	7.40
50840 A		<50	<2	11.0	6.0	7.33
50850 A		<50	10	14.0	5.2	7.00
50860 A		<50	<2	17.0	12.0	7.37
50870 A		<50	<2	42.4	5.8	7.02
50880 A		<50	<2	19.3	5.1	11.00
50890 A		<50	<2	17.0	5.0	6.86
50940 A		<50	304	14.0	5.2	5.63
50950 A		<50	11	13.0	4.8	6.33
50960 A		<50	14	10.0	5.0	5.66
50970 A		<50	31	10.0	6.0	8.25
50980 A		<50	20	13.0	8.1	5.81
50990 A		<50	24	14.0	7.9	6.06
50600 A		<50	16	12.0	7.5	6.50
50610 A		<50	5	40.2	31.2	5.53



REPORT: 016-5550

PROJECT: 20203-6-0850/01

PAGE 3A

SAMPLE NUMBER	ELEMENT UNITS	Sc PPM	Cr PPM	Fe PPM	Co PPM	Ni PPM	Zn PPM	As PPM	Sr PPM	Rb PPM	Mn PPM	Ag PPM
50620 A		15.0	51	4.1	16	<20	520	45.0	<5	170	11	<2
50630 A		17.0	20	4.5	11	34	<100	32.0	<5	130	11	<2
50640 A		14.0	67	3.5	20	36	440	28.0	<5	100	15	<2
50650 A		2.2	<20	1.8	<5	21	160	10.0	<5	110	14	<2
50660 A		13.0	43	4.8	8	20	130	7.2	<5	140	8	<2
50670 A		12.0	58	3.9	9	22	170	9.0	<5	130	6	<2
50680 A		3.6	<20	1.7	<5	<20	110	2.4	<5	91	5	<2
50690 A		7.8	26	3.5	5	23	<100	3.8	<5	90	12	<2
50700 A		16.0	510	5.1	34	270	110	31.0	<5	120	3	<2
50710 A		11.0	21	4.1	8	36	360	54.6	<5	150	11	<2
50720 A		10.0	50	3.9	6	<20	330	37.0	<5	130	8	<2
50730 A		6.2	27	3.6	<5	<20	350	6.8	<5	100	8	<2
50740 A		12.0	110	4.0	14	47	160	135.0	<5	270	9	4
50750 A		7.6	66	3.2	<5	<20	130	31.0	<5	260	3	<3
50760 A		4.3	29	2.2	<5	<20	170	5.8	<5	110	4	<2
50770 A		3.0	<20	0.6	<5	<20	<100	1.6	<5	110	3	<2
50780 A		10.0	42	3.0	<5	<20	130	3.2	<5	110	5	<2
50790 A		11.0	21	3.2	6	<20	<100	5.8	<5	110	4	<2
50800 A		14.0	33	3.8	8	<20	<100	10.0	<5	91	3	<2
50810 A		12.0	37	3.6	8	<20	230	16.0	<5	140	4	<2
50820 A		8.3	45	2.3	<5	21	170	11.0	<5	80	8	<2
50830 A		6.9	29	2.4	5	20	200	25.0	<5	180	20	<2
50840 A		10.0	30	2.7	7	<20	400	6.0	<5	160	7	<2
50850 A		13.0	38	2.7	10	<20	200	14.0	<5	140	3	<2
50860 A		14.0	36	2.9	6	<20	<100	7.1	<5	110	7	<2
50870 A		10.0	51	3.6	7	<20	200	7.6	<5	140	7	<2
50880 A		7.9	33	4.5	<5	<20	110	10.0	<5	120	5	<2
50890 A		8.3	<20	3.2	6	<20	160	10.0	<5	170	2	<2



REPORT: 016-5589

PROJECT: 23233-6-0860/01

PAGE 3A

STANDARD NAME	ELEMENT UNITS	Sc PPM	Cr PPM	Fe PCT	Co PPM	Ni PPM	Zn PPM	As PPM	Se PPM	Rb PPM	Mo PPM	Ag PPM
BCC SOIL PULP STD 86		15.0	120	3.9	12	40	140	6.5	<5	94	2	<2
		14.0	110	3.9	10	31	<100	6.5	<5	84	2	<2

Number of Analyses	2	2	2	2	2	2	2	2	2	2	2	2
Mean Value	14.50	115.0	3.90	11.0	35.5	95.0	6.50	2.5	89.0	1.9	1.0	
Standard Deviation	0.707	7.07	0.000	1.41	6.36	63.64	0.000	0.00	7.07	0.07	0.00	
Lowest Value	14.0	110	3.9	10	31	<100	6.5	<5	84	2	<2	
Highest Value	15.0	120	3.9	12	40	140	6.5	<5	94	2	<2	

LOW HG STD 1986

Number of Analyses	0	0	0	0	0	0	0	0	0	0	0	0
Mean Value												
Standard Deviation												
Lowest Value												
Highest Value												

BCC ROCK PULP STD 86	8.8	250	3.9	17	93	1400	109.0	<5	60	20	2	
----------------------	-----	-----	-----	----	----	------	-------	----	----	----	---	--

Number of Analyses	1	1	1	1	1	1	1	1	1	1	1	1
Mean Value	8.00	250.0	3.90	17.0	93.0	1400.0	109.00	2.5	60.0	20.0	2.4	
Standard Deviation												
Lowest Value	8.8	250	3.9	17	93	1400	109.0	<5	60	20	2	
Highest Value	8.8	250	3.9	17	93	1400	109.0	<5	60	20	2	

REPORT: 016-5590

PROJECT: 23233-6-0860/01

PAGE 38

SAMPLE NUMBER	ELEMENT UNITS	Cd PPM	Cb PPM	Cs PPM	Ra PPM	La PPM	Eu PPM	Tb PPM	Yb PPM	Hf PPM	Ta PPM	W PPM
5062D A		14	1.5	17.0	900	120	4	2.5	6	7	1.3	2
5063D A		<5	1.4	14.0	1600	65	3	1.3	5	6	1.2	2
5064D A		10	1.3	8.1	1300	57	2	0.9	4	6	0.9	5
5065D A		<5	2.5	5.9	210	79	<1	3.2	10	12	3.5	<1
5066D A		<5	1.2	12.0	1200	82	2	2.0	6	9	1.7	4
5067D A		<5	0.8	10.0	1200	74	1	1.6	4	9	1.4	3
5068D A		<5	0.4	5.9	1100	26	<1	<0.5	2	12	1.6	2
5069D A		<5	0.7	9.0	1500	50	2	0.7	3	11	1.2	6
5070D A		<5	1.4	5.5	740	24	1	1.1	5	6	2.4	18
5071D A		<5	1.0	20.0	1400	140	2	2.7	6	12	2.0	2
5072D A		<5	0.8	13.0	820	170	2	2.7	6	15	2.4	<2
5073D A		<5	1.5	9.3	390	110	2	4.9	10	9	1.6	3
5074D A		<5	11.5	45.0	620	92	2	1.5	5	4	1.7	7
5075D A		<5	10.2	24.0	320	90	<1	0.8	<2	7	2.2	5
5076D A		<5	0.4	3.7	970	37	<1	0.8	4	20	1.7	2
5077D A		<5	0.2	3.6	1000	32	1	<0.5	3	11	1.4	2
5078D A		<5	0.9	4.6	1400	66	2	1.6	4	9	1.5	4
5079D A		<5	1.0	4.2	1600	53	1	1.3	4	12	1.8	5
5080D A		<5	1.2	5.4	1300	74	3	1.7	4	9	1.3	4
5081D A		<5	0.7	9.0	1600	45	2	0.9	4	8	1.6	3
5082D A		<5	0.5	2.5	1700	41	1	0.7	2	8	1.2	3
5083D A		<5	0.8	2.5	1000	21	<1	<0.5	2	5	1.7	4
5084D A		<5	0.5	3.6	1400	33	2	0.7	3	5	1.4	5
5085D A		<5	0.3	9.2	1500	48	2	0.6	4	8	1.4	5
5086D A		<5	0.7	7.3	2200	68	3	1.0	3	10	1.4	3
5087D A		<5	0.4	7.3	1100	49	<1	1.0	4	22	2.3	<2
5088D A		<5	0.3	7.5	1600	31	2	0.7	3	14	1.9	7
5089D A		<5	1.0	33.0	1200	33	<1	1.5	4	10	1.3	4



REPORT: 016-5508

PROJECT: 23233-6-0860/01 PAGE 38

STANDARD NAME	ELEMENT UNITS	Cd PPM	Sb PPM	Cs PPM	Ba PPM	La PPM	Eu PPM	Tb PPM	Yb PPM	Hf PPM	Ta PPM	W PPM
BCC SOIL PULP STD 86		<5	1.0	5.6	610	52	1	1.3	4	13	1.5	2
		<5	1.0	5.2	590	48	<1	1.5	4	12	1.5	1

Number of Analyses	2	2	2	2	2	2	2	2	2	2	2	2
Mean Value	2.5	1.00	5.40	600.0	50.0	0.8	1.40	3.6	12.5	1.50	1.9	
Standard Deviation	0.00	0.000	0.283	14.14	2.83	0.42	0.141	0.07	0.71	0.000	0.64	
Lowest Value	<5	1.0	5.2	590	48	<1	1.3	4	12	1.5	1	
Highest Value	<5	1.0	5.6	610	52	1	1.5	4	13	1.5	2	

LOW HG STD 1986

Number of Analyses	0	0	0	0	0	0	0	0	0	0	0	0
Mean Value												
Standard Deviation												
Lowest Value												
Highest Value												

BCC ROCK PULP STD 86		<5	1.2	1.7	570	23	<1	1.1	4	5	0.8	2
----------------------	--	----	-----	-----	-----	----	----	-----	---	---	-----	---

Number of Analyses	1	1	1	1	1	1	1	1	1	1	1	1
Mean Value	2.5	1.20	1.70	570.0	23.0	0.5	1.10	3.7	4.6	0.75	2.4	
Standard Deviation												
Lowest Value	<5	1.2	1.7	570	23	<1	1.1	4	5	0.8	2	
Highest Value	<5	1.2	1.7	570	23	<1	1.1	4	5	0.8	2	

REPORT: C15-5599

PROJECT: 23233-6-0860/01

PAGE 3C

SAMPLE NUMBER	ELEMENT UNITS	Ir PPB	Au PPB	Pb PPM	U PPM	WT g
50630 A		<50	24	24.0	19.0	6.30
50632 A		<50	13	15.0	11.0	6.54
50640 A		<50	46	13.0	6.0	3.06
50650 A		<50	8	42.4	36.7	5.44
50660 A		<50	11	23.7	12.0	8.27
50670 A		<50	84	22.0	9.4	6.47
50680 A		<50	7	12.0	8.7	8.10
50690 A		<50	150	17.0	14.0	6.04
50700 A		<50	7	13.0	14.0	8.92
50710 A		<50	20	30.4	18.0	6.38
50720 A		<50	43	37.0	16.0	5.39
50730 A		<50	43	33.7	16.0	5.73
50740 A		<50	12	23.0	14.0	4.47
50750 A		<50	4	35.4	15.0	6.40
50760 A		<50	42	34.9	8.8	6.61
50770 A		<50	42	16.0	5.1	10.04
50780 A		<50	43	19.0	7.7	6.84
50790 A		<50	42	30.6	7.0	2.45
50800 A		<50	43	23.1	6.7	1.77
50810 A		<50	50	15.0	7.0	9.11
50820 A		<50	5	13.0	4.1	5.47
50830 A		<50	5	13.0	4.2	6.62
50840 A		<50	43	13.0	6.6	6.77
50850 A		<50	38	15.0	7.2	3.01
50860 A		<50	5	13.0	12.0	2.05
50870 A		<50	13	60.3	14.0	3.90
50880 A		<50	42	34.6	10.0	8.82
50890 A		<50	42	31.2	10.0	6.03



REPORT: 016-5589

PROJECT: 23233-6-0860/01

PAGE 3C

STANDARD NAME	ELEMENT UNITS	Ir PPB	Au PPB	Tl PPM	U PPM	WT g	Te PPM	Hg PPB	Bi PPM
BCC SOIL PULP STD 86		<50	<2	27.0	5.6	8.50			<1
		<50	<2	26.3	5.4	9.04			<1

Number of Analyses	2	2	2	2	2	0	0	2
Mean Value	25.0	1.0	26.65	5.50	8.770			0.5
Standard Deviation	0.00	0.00	0.495	0.141	0.3918			0.00
Lowest Value	<50	<2	26.3	5.4	8.50			<1
Highest Value	<50	<2	27.0	5.6	9.04			<1

LOW HG STD 1986

65
65

Number of Analyses	0	0	0	0	0	0	2	0
Mean Value							65.0	
Standard Deviation							0.00	
Lowest Value							65	
Highest Value							65	

BCC ROCK PULP STD 86	<50	58	6.2	3.1	7.97			<1
								<1

Number of Analyses	1	1	1	1	1	0	0	2
Mean Value	25.0	58.0	6.20	3.10	7.970			0.5
Standard Deviation								0.00
Lowest Value	<50	58	6.2	3.1	7.97			<1
Highest Value	<50	58	6.2	3.1	7.97			<1

REPORT: 016-5589

PROJECT: 23223-6-0860/01 PAGE 1A

SAMPLE NUMBER	ELEMENT UNITS	Sc PPM	Cr PPM	Fe PCT	Co PPM	Ni PPM	Zn PPM	As PPM	Se PPM	Rb PPM	Mo PPM	Ag PPM
9001A DUPLICATE		1.4	<20	2.7	<5	<20	180	1.1	<5	34	3	<2
9002A		1.1	<20	0.6	<5	<20	<100	3.7	<5	70	83	2
9003A		<0.2	<20	<0.2	<5	<20	<100	1.4	<5	8	5	<2
9004A		1.4	<20	0.9	<5	<20	230	1.7	<5	220	2	<2
9005A		0.9	<20	0.5	<5	<20	100	14.0	<5	60	2	<2
9006A		1.3	<20	0.4	<5	<20	<100	5.7	<5	77	22	3
9007A		2.4	<20	1.2	<5	<20	150	13.0	<5	140	37	<2
9008A		0.8	<20	0.4	<5	<20	<100	1.5	<5	99	69	<2
9009A		1.4	<20	2.6	<5	<20	130	1.6	<5	40	3	<2
9010A DUPLICATE		16.0	520	5.2	33	300	160	31.0	<5	130	4	<2
9011A		1.6	<20	1.3	<5	<20	140	1.1	<5	7	1	<2
9012A		4.8	<20	1.7	6	<20	140	21.0	<5	140	9	<2
9013A		14.0	<20	4.3	7	<20	190	62.6	<5	130	7	<2
9014A		1.2	<20	0.5	<5	<20	<100	5.7	<5	67	18	<2
9015A		5.2	<20	2.5	<5	<20	<100	103.0	<5	58	4	<2
9016A		<0.2	<20	<0.2	<5	<20	<100	0.5	<5	14	34	<2
9017A		1.1	<20	0.9	<5	<20	220	7.1	<5	180	2	<2
9018A		2.0	<20	0.3	<5	<20	<100	0.6	<5	140	2	<2
DUPLICATE												
9019A		1.0	<20	0.3	<5	<20	130	5.4	<5	260	14	<2
9020A		2.3	<20	0.7	<5	<20	140	2.0	<5	170	<1	<2
9021A		1.7	<20	0.5	<5	<20	100	0.8	<5	160	1	<2
9022A		2.4	<20	1.1	<5	<20	180	3.5	<5	160	2	<2
9023A		1.6	<20	0.9	<5	<20	130	3.6	<5	120	12	<2
9024A		2.4	<20	2.1	<5	<20	370	10.0	<5	52	13	<2
9025A		1.1	<20	0.9	<5	<20	<100	2.2	<5	190	3	<2
9026A		1.3	<20	0.5	<5	<20	150	2.9	<5	150	2	<2
9027A		1.3	<20	1.0	<5	<20	120	6.2	<5	150	2	<2
9028A		1.9	<20	0.2	<5	<20	<100	2.1	<5	25	6	<2
9029A		8.3	<36	2.4	<5	<20	<100	1670.0	<7	57	22	<2
9030A		16.0	590	5.3	35	320	160	33.0	<5	140	6	<2
9031A		5.6	<20	1.3	<5	<20	<100	81.7	<5	71	8	<2
9032A		9.3	31	10.0	5	<20	130	1560.0	<6	18	9	<2
9033A		0.4	<20	0.8	<5	<20	160	3.0	<5	150	4	<2
9034A		8.2	<20	2.0	<5	<20	100	5.4	<5	17	13	<2
9035A		7.8	<20	2.3	<5	<20	<100	9.2	<5	25	6	<2
DUPLICATE												
9036A		1.0	<20	0.4	<5	<20	<100	49.0	<5	7	4	<2

REPORT: 016-5589

PROJECT: 23233-5-0860/01 PAGE 18

SAMPLE NUMBER	ELEMENT UNITS	Cd PPM	Sb PPM	Cs PPM	Ba PPM	La PPM	Eu PPM	Tb PPM	Yb PPM	Hf PPM	Ta PPM	W PPM
9001A		<5	1.0	3.2	55	9	<1	0.6	<2	<1	<0.5	1
DUPLICATE												
9002A		<5	0.9	2.9	230	2	<1	<0.5	<2	<1	<0.5	2
9003A		<5	1.4	<0.5	<50	<2	<1	<0.5	<2	<1	<0.5	<1
9004A		<5	0.5	2.4	100	49	<1	1.1	6	10	1.3	<1
9005A		<5	1.2	1.6	160	2	<1	<0.5	<2	<1	<0.5	<1
9006A		<5	2.0	3.0	320	6	<1	<0.5	<2	<1	<0.5	4
9007A		<5	2.9	7.7	440	16	<1	<0.5	<2	2	0.6	4
9008A		<5	2.1	3.3	200	5	<1	<0.5	<2	<1	<0.5	2
9009A		<5	0.9	3.3	87	9	<1	0.5	<2	<1	<0.5	2
9010A		<5	1.4	5.9	790	32	<1	1.6	5	6	2.3	19
DUPLICATE												
9011A		<5	5.6	1.0	82	6	<1	<0.5	<2	<1	<0.5	<1
9012A		<5	1.3	3.3	3700	25	<1	0.7	3	7	0.7	2
9013A		<5	3.4	5.4	3000	26	2	0.9	3	4	0.6	5
9014A		<5	1.2	1.7	200	2	<1	<0.5	<2	<1	<0.5	3
9015A		<5	1.7	<0.5	1500	12	2	<0.5	2	5	1.0	4
9016A		<5	0.7	<0.5	<50	<2	<1	<0.5	<2	<1	<0.5	<1
9017A		<5	0.5	3.1	230	20	<1	0.9	5	8	1.1	<1
9018A		<5	0.7	2.9	250	25	<1	1.2	5	7	1.2	1
DUPLICATE												
9019A		<5	1.3	2.2	320	16	<1	0.7	6	9	1.6	<1
9020A		<5	0.6	3.1	390	30	<1	1.6	6	10	1.1	1
9021A		<5	0.4	1.9	430	31	<1	1.1	4	7	1.0	2
9022A		<5	0.5	1.4	420	33	1	1.5	6	8	1.2	<1
9023A		<5	3.4	5.9	280	13	<1	<0.5	<2	1	0.5	7
9024A		10	2.7	4.2	210	12	<1	<0.5	<2	2	0.6	6
9025A		<5	0.3	4.3	74	38	<1	0.9	5	7	1.2	<1
9026A		<5	0.3	4.5	190	52	<1	1.5	5	9	1.2	<1
9027A		<5	0.4	1.5	160	5	<1	<0.5	4	8	1.3	<1
9028A		<5	2.6	1.7	110	6	<1	<0.5	<2	<1	<0.5	<1
9029A		<5	9.0	3.7	15600	16	<1	<0.5	<2	<1	<0.5	<1
9030A		<5	1.6	6.4	790	34	<1	1.5	5	6	2.4	23
9031A		<5	3.7	8.7	900	14	<1	0.5	<2	3	0.5	<1
9032A		<5	3.4	1.1	420	5	<1	<0.5	<2	<1	<0.5	<1
9033A		<5	1.1	2.0	530	13	<1	0.8	5	9	1.0	<1
9034A		<5	5.8	1.9	350	11	<1	<0.5	<2	<1	<0.5	3
9035A		<5	12.3	1.7	2100	13	<1	0.6	<2	2	<0.5	<1
DUPLICATE												
9036A		<5	2.0	0.9	290	3	<1	<0.5	<2	<1	<0.5	<1



REPORT: 016-5589

PROJECT: 20233-6-0860/01

PAGE 1C

SAMPLE NUMBER	ELEMENT UNITS	Ir PPB	Au PPB	Th PPM	U PPM	WT g	Te PPM	Hg PPB	Bi PPM
9001A		<50	<2	4.0	11.0	5.91	<0.02	25	<1
DUPLICATE								25	<1
9002A		<50	5	4.4	1.7	6.55	0.02	15	<1
9003A		<50	<2	<0.2	<0.2	6.99	<0.02	5	<1
9004A		<50	<2	25.1	6.9	6.46	<0.02	5	<1
9005A		<50	19	1.7	0.9	7.99	0.17	<5	<1
9006A		<50	7	3.1	1.1	5.39	<0.02	45	<1
9007A		<50	12	10.0	6.7	6.04	<0.02	15	2
9008A		<50	<2	3.1	1.2	5.64	<0.02	15	<1
9009A		<50	<2	4.0	10.0	7.49	0.02	30	2
9010A		<50	9	13.0	14.0	11.96	0.09	25	<1
DUPLICATE								25	<1
9011A		<50	<2	2.5	4.1	6.91	<0.02	<5	<1
9012A		<50	3	19.0	6.6	7.17	<0.02	15	<1
9013A		<50	11	10.0	4.6	7.12	<0.02	40	<1
9014A		<50	8	3.4	1.8	6.33	0.03	10	<1
9015A		<50	9	16.0	3.4	5.91	<0.02	5	<1
9016A		<50	5	0.3	0.0	6.54	<0.02	5	<1
9017A		<50	<2	23.3	8.0	5.53	<0.02	5	1
9018A		<50	2	20.7	5.0	6.36	0.02	<5	<1
DUPLICATE								<5	<1
9019A		<50	3	21.1	12.0	4.03	0.04	15	<1
9020A		<50	4	25.0	53.8	7.09	<0.02	5	<1
9021A		<50	3	20.6	3.9	5.59	<0.02	<5	<1
9022A		<50	<2	23.6	6.4	5.93	<0.02	5	<1
9023A		<50	<2	5.7	3.3	7.54	0.02	15	2
9024A		<50	20	6.9	3.3	7.02	<0.02	10	<1
9025A		<50	400	21.6	4.4	8.10	0.02	<5	2
9026A		<50	<2	22.5	6.1	6.97	0.02	<5	<1
9027A		<50	<2	22.2	6.4	6.07	<0.02	<5	<1
9028A		<50	<2	3.4	1.0	7.24	0.02	<5	<1
9029A		<50	44	4.9	2.5	6.09	0.02	15	<1
9030A		<50	37	14.0	15.0	10.04	0.06	25	<1
9031A		<50	4	7.6	3.3	7.62	0.02	5	<1
9032A		<50	47	3.4	1.6	9.59	0.08	15	<1
9033A		<50	<2	18.0	6.1	7.93	<0.02	<5	<1
9034A		<50	<2	2.6	1.8	7.19	<0.02	55	<1
9035A		<50	<2	3.9	2.0	9.41	<0.02	165	<1
DUPLICATE								150	<1
9036A		<50	<2	0.5	0.3	8.93	0.02	5	<1

REPORT: 016-5589

PROJECT: 23233-6-0860/01

PAGE 2A

SAMPLE NUMBER	ELEMENT UNITS	Sc PPM	Cr PPM	Fe PCT	Co PPM	Ni PPM	Zn PPM	As PPM	Se PPM	Rb PPM	Mo PPM	Ag PPM
9037A		9.3	<20	0.8	<5	<20	<100	79.2	<5	55	23	<2
9038A												
9039A		6.7	<20	2.0	<5	<20	100	9.4	<5	21	7	<2
9040A		3.3	<20	1.8	<5	<20	160	14.0	<5	21	8	<2
9041A		20.0	<20	4.8	<5	<20	190	9.5	<5	120	7	<2
9042A		3.0	<20	2.8	<5	<20	<100	36.0	<5	140	7	<2
9043A		1.7	<20	1.0	<5	<20	130	96.1	<5	34	2	<2
9044A		4.0	<20	0.9	<5	<20	140	3.0	<5	87	3	<2
DUPLICATE 9045A		6.0	<73	2.4	<5	<25	870	>3000.0	<14	160	5	821
9046A		0.9	<20	0.8	<5	<20	190	23.0	<5	170	2	2
9047A		13.0	<20	3.6	15	<20	140	31.0	<5	110	24	<2
9048A		19.0	<20	4.6	<5	<20	<100	10.0	<5	140	6	<2
9049A		1.3	<20	0.7	<5	<20	<100	4.3	<5	69	121	<2
9050A		15.0	510	4.9	30	270	150	30.0	<5	120	4	<2
9051A		3.6	<20	2.4	<5	<20	200	39.0	<5	150	5	<2
9052A		19.0	<66	18.0	6	<23	140	>3000.0	<13	20	10	<5
DUPLICATE 9053A		1.5	<20	1.3	<5	<20	140	20.0	<5	160	2	<2
9055B		1.0	<20	1.2	<5	<20	120	6.4	<5	84	4	<2

REPORT: 016-5589

PROJECT: 23233-6-0860/01 PAGE 2B

SAMPLE NUMBER	ELEMENT UNITS	Cd PPM	Sb PPM	Cs PPM	Ba PPM	La PPM	Eu PPM	Tb PPM	Yb PPM	Hf PPM	Ta PPM	W PPM
9037A		<5	7.8	2.5	4100	19	<1	<0.5	<2	3	<0.5	2
9038A												
9039A		<5	13.2	1.7	2000	11	<1	0.6	<2	2	<0.5	1
9040A		<5	1.7	1.2	300	30	<1	1.2	4	8	1.1	<1
9041A		<5	0.8	2.9	3200	35	2	1.1	5	6	0.8	7
9042A		<5	3.1	2.5	1100	14	<1	0.5	3	6	0.8	2
9043A		<5	0.7	0.7	170	14	<1	0.8	5	8	1.2	<1
9044A		<5	0.8	1.3	1400	11	<1	0.6	5	8	1.1	<1
DUPLICATE												
9045A		<23	124.0	3.8	3100	38	<2	<0.5	<5	4	1.2	<107
9046A		<5	0.5	2.5	53	51	<1	1.4	5	10	1.3	<1
9047A		<5	1.1	2.1	3500	30	1	1.0	3	5	0.9	2
9048A		<5	0.7	3.1	3300	36	2	1.2	4	7	0.8	6
9049A		<5	1.5	2.5	180	4	<1	<0.5	<2	<1	<0.5	2
9050A		<5	1.4	5.0	730	31	2	1.2	6	6	2.1	18
9051A		<5	2.2	2.3	1200	22	<1	0.7	4	7	1.0	<1
9052A		<19	16.5	<0.9	460	6	<1	<0.5	<4	<2	<0.5	<11
DUPLICATE												
9053A		<5	0.4	1.8	140	7	<1	<0.5	3	2	1.2	<1
9053B		<5	1.2	1.4	640	56	<1	1.6	6	9	1.4	1

REPORT: 016-5589

PROJECT: 23233-6-0860/01

PAGE 20

SAMPLE NUMBER	ELEMENT UNITS	Ir PPB	Au PPB	Th PPM	U PPM	WT g	Te PPM	Hg PPB	Bi PPM
9037A		<50	9	6.4	2.5	7.80	0.62	100	<1
9038A							IS	IS	IS
9039A		<50	4	3.9	2.1	6.62	0.02	125	<1
9040A		<50	2	18.0	5.8	6.94	<0.02	10	<1
9041A		<50	<2	18.0	4.8	6.39	<0.02	10	<1
9042A		<50	<2	18.0	6.0	7.89	0.02	5	1
9043A		<50	6	19.0	7.5	7.45	0.04	10	<1
9044A		<50	<2	19.0	5.9	7.88	0.02	10	<1
DUPLICATE								10	<1
9045A		<99	254	14.0	4.8	7.31	<0.02	35	<1
9046A		<50	3	24.9	6.4	6.52	0.02	10	<1
9047A		<50	4	10.0	3.8	7.42	0.03	10	<1
9048A		<50	<2	13.0	5.2	8.96	<0.02	10	<1
9049A		<50	3	3.2	1.7	10.23	0.02	20	<1
9050A		<50	9	13.0	14.0	10.67	0.09	30	2
9051A		<50	<2	18.0	5.1	9.51	<0.02	10	<1
9052A		<82	90	1.5	2.1	10.35	0.02	30	<1
DUPLICATE								25	<1
9053A		<50	<2	22.3	6.7	7.22	<0.02	10	<1
9054B		<50	5	22.9	19.0	7.00	0.04	10	<1



REPORT: 016-5589

PROJECT: 23233-6-0860/01 PAGE 3A

STANDARD NAME	ELEMENT UNITS	Sc PPM	Er PPM	Fe PCT	Co PPM	Ni PPM	Zn PPM	As PPM	Se PPM	Rb PPM	Mo PPM	Ag PPM
BCC SOIL PULP STD 86		15.0	120	3.9	12	40	140	6.5	<5	94	2	<2
		14.0	110	3.9	10	31	<100	6.5	<5	84	2	<2

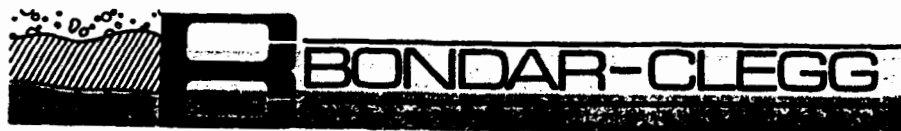
Number of Analyses	2	2	2	2	2	2	2	2	2	2	2	2
Mean Value	14.50	115.0	3.90	11.0	35.5	95.0	6.50	2.5	89.0	1.9	1.0	1.0
Standard Deviation	0.707	7.07	0.000	1.41	6.36	63.64	0.000	0.00	7.07	0.07	0.00	0.00
Lowest Value	14.0	110	3.9	10	31	<100	6.5	<5	84	2	<2	<2
Highest Value	15.0	120	3.9	12	40	140	6.5	<5	94	2	<2	<2

LOW HG STD 1986

Number of Analyses	0	0	0	0	0	0	0	0	0	0	0	0
Mean Value												
Standard Deviation												
Lowest Value												
Highest Value												

BCC ROCK PULP STD 86	8.8	250	3.9	17	93	1400	109.0	<5	60	20	2	
----------------------	-----	-----	-----	----	----	------	-------	----	----	----	---	--

Number of Analyses	1	1	1	1	1	1	1	1	1	1	1	1
Mean Value	9.00	250.0	3.90	17.0	93.0	1400.0	109.00	2.5	60.0	20.0	2.4	
Standard Deviation												
Lowest Value	8.8	250	3.9	17	93	1400	109.0	<5	60	20	2	
Highest Value	8.2	250	2.9	17	93	1400	109.0	<5	60	20	2	



REPORT: 016-5509

PROJECT: 23233-6-0860/01 PAGE 38

STANDARD NAME	ELEMENT UNITS	Cd PPM	Sb PPM	Cs PPM	Ba PPM	La PPM	Eu PPM	Tb PPM	Yb PPM	Hf PPM	Ta PPM	W PPM
BCC SOIL PULP STD 86		<5	1.0	5.6	610	52	1	1.3	4	13	1.5	2
		5	1.0	5.2	590	48	<1	1.5	4	12	1.5	1

Number of Analyses	2	2	2	2	2	2	2	2	2	2	2	2
Mean Value	2.5	1.00	5.40	600.0	50.0	0.8	1.40	3.6	12.5	1.50	1.9	
Standard Deviation	0.00	0.000	0.283	14.14	2.83	0.42	0.141	0.07	0.71	0.000	0.64	
Lowest Value	<5	1.0	5.2	590	48	<1	1.3	4	12	1.5	1	
Highest Value	<5	1.0	5.6	610	52	1	1.5	4	13	1.5	2	

LOW HG STD 1986

Number of Analyses	0	0	0	0	0	0	0	0	0	0	0	0
Mean Value												
Standard Deviation												
Lowest Value												
Highest Value												

BCC ROCK PULP STD 86	<5	1.2	1.7	570	23	<1	1.1	4	5	0.8	2	
----------------------	----	-----	-----	-----	----	----	-----	---	---	-----	---	--

Number of Analyses	1	1	1	1	1	1	1	1	1	1	1	1
Mean Value	2.5	1.20	1.70	570.0	23.0	0.5	1.10	3.7	4.6	0.75	2.4	
Standard Deviation												
Lowest Value	<5	1.2	1.7	570	23	<1	1.1	4	5	0.8	2	
Highest Value	<5	1.2	1.7	570	23	<1	1.1	4	5	0.8	2	

REPORT: 016-5589

PROJECT: 23233-6-0860/01

PAGE 3C

STANDARD NAME	ELEMENT UNITS	Ir PPB	Au PPB	Th PPM	U PPM	WT g	Te PPM	Hg PPB	Bi PPM
DC SOIL PULP STD 86		<50	<2	27.0	5.6	8.50			<1
		<50	<2	26.3	5.4	9.04			<1

Number of Analyses	2	2	2	2	2	0	0	2
Mean Value	25.0	1.0	26.65	5.50	8.770			0.5
Standard Deviation	0.00	0.00	0.495	0.141	0.3918			0.00
Lowest Value	<50	<2	26.3	5.4	8.50			<1
Highest Value	<50	<2	27.0	5.6	9.04			<1

LOW HG STD 1986

65
65

Number of Analyses	0	0	0	0	0	0	2	0
Mean Value							65.0	
Standard Deviation							0.00	
Lowest Value							65	
Highest Value							65	

200 ROCK PULP STD 86	<50	58	6.2	3.1	7.97			<1
								<1

Number of Analyses	1	1	1	1	1	0	0	2
Mean Value	25.0	58.0	6.23	3.10	7.970			0.5
Standard Deviation								0.00
Lowest Value	<50	58	6.2	3.1	7.97			<1
Highest Value	<50	58	6.2	3.1	7.97			<1

REPORT: 016-5530

PROJECT: 20203-6-0860/01 PAGE 1A

SAMPLE NUMBER	ELEMENT UNITS	Sc PPM	Cr PPM	Fe PPT	Co PPM	Ni PPM	Zn PPM	As PPM	Se PPM	Rb PPM	Mo PPM	Ag PPM
5054B A		12.0	51	3.9	9	<20	<100	34.0	<5	140	15	<2
5055B A		11.0	<20	3.4	8	<20	<100	92.9	<5	150	30	<2
5056B A		19.0	20	3.5	6	<20	<100	66.1	<5	120	55	<2
5057B A		16.0	24	4.9	7	<20	120	107.0	<5	110	6	<2
5058B A		21.0	<20	6.7	7	<20	160	54.4	<5	95	42	<2
5059B A		18.0	26	4.9	6	<20	140	112.0	<5	110	10	<2
5060B A		16.0	<20	4.4	6	<20	110	91.1	<5	110	8	<2
5061B A		2.1	<20	1.6	<5	<20	210	7.9	<5	110	14	<2
5062B A		14.0	42	3.8	11	35	550	39.0	<5	150	10	<2
5063B A		17.0	36	4.8	9	<20	160	29.0	<5	110	8	<2
5064B A		14.0	46	3.4	8	23	490	23.0	<5	89	13	<2
5065B A		2.2	<20	1.5	<5	<20	190	6.1	<5	110	13	<2
5066B A		13.0	45	4.4	9	<20	160	7.5	<5	140	7	<2
5067B A		12.0	43	3.9	7	<20	<100	3.6	<5	120	5	<2
5068B A		5.4	22	0.7	<5	<20	<100	2.3	<5	79	4	<2
5069B A		6.4	<20	2.6	<5	<20	110	1.8	<5	95	9	<2
5070B A		15.0	500	5.3	32	300	130	32.0	<5	140	4	<2
5071B A		9.1	26	3.9	8	<20	310	59.2	<5	160	6	<2
5072B A		8.2	41	3.4	5	<20	300	53.0	<5	130	6	<2
5073B A		5.4	20	1.8	<5	<20	320	3.5	<5	110	6	<2
5074B A		12.0	100	3.9	11	47	210	151.0	<5	260	7	<2
5075B A		7.6	54	3.0	7	<20	130	29.0	<5	200	2	<2
5076B A		3.8	31	2.1	<5	<20	150	4.2	<5	100	3	<2
5077B A		2.3	<20	0.4	<5	<20	<100	1.2	<5	90	2	<2
5078B A		3.5	21	2.3	5	<20	<100	4.2	<5	110	5	<2
5079B A		9.0	<20	2.9	<5	<20	140	5.3	<5	110	3	<2
5080B A		13.0	23	3.5	8	<20	<100	12.0	<5	24	4	<2
5081B A		12.0	<20	3.9	10	<20	250	19.0	<5	130	4	<2
5082B A		7.4	<20	2.1	<5	<20	<100	3.8	<5	20	3	<2
5083B A		6.5	24	2.5	5	<20	250	21.0	<5	170	16	<2
5084B A		9.0	24	2.5	<5	<20	440	3.0	<5	140	5	<2
5085B A		12.0	31	3.7	9	<20	240	19.0	<5	120	3	<2
5086B A		11.0	<20	3.1	5	<20	<100	5.3	<5	100	4	<2
5087B A		6.7	30	3.1	<5	120	140	5.6	<5	110	3	<2
5088B A		5.9	<20	3.5	<5	<20	<100	3.2	<5	110	3	<2
5089B A		6.7	36	2.7	<5	<20	<100	3.4	<5	130	3	<2
5094C A		12.0	<20	4.1	9	120	<100	22.0	<5	140	11	<2
5095C A		9.1	<20	2.8	7	100	110	70.5	<5	120	20	<2
5096C A		15.0	30	3.0	7	<20	<100	62.4	<5	120	46	<2
5097C A		14.0	<20	4.5	6	<20	100	99.2	<5	110	5	<2

REPORT: 016-5590

PROJECT: 23233-6-0850/01

PAGE 1B

SAMPLE NUMBER	ELEMENT UNITS	Ca PPM	Sr PPM	Sc PPM	Ba PPM	La PPM	Eu PPM	Tb PPM	Yb PPM	Hf PPM	Ta PPM	W PPM
5054B A	<5	1.7	8.4	1500	53	3	1.3	3	6	1.0	3	
5055B A	<5	3.8	15.0	1100	57	3	1.2	3	4	0.9	2	
5056B A	<5	8.4	7.9	540	57	2	0.8	3	4	0.7	5	
5057B A	<5	1.7	3.5	2200	49	3	1.1	4	7	1.0	4	
5058B A	<5	2.6	3.6	1700	79	5	1.8	4	7	1.2	3	
5059B A	<5	1.0	8.5	1800	49	3	1.2	4	6	0.8	3	
5060B A	<5	1.1	6.8	1800	41	3	0.7	4	7	1.1	4	
5061B A	<5	2.2	5.3	200	68	<1	2.8	3	11	3.4	1	
5062B A	9	1.5	15.0	1000	110	3	2.2	6	7	1.3	3	
5063B A	<5	1.3	12.0	1700	52	4	1.3	4	6	1.0	4	
5064B A	15	1.2	7.9	1400	55	3	1.0	4	6	1.0	3	
5065B A	<5	2.3	4.7	260	71	<1	2.6	3	11	3.3	<1	
5066B A	<5	1.3	12.0	1100	71	5	1.7	5	3	1.6	3	
5067B A	<5	0.8	9.1	1300	64	2	1.2	3	3	1.2	3	
5068B A	<5	0.3	5.0	1100	22	<1	<0.5	<2	8	1.6	2	
5069B A	<5	0.6	7.5	1600	44	2	0.6	<2	7	1.2	5	
5070B A	<5	1.5	5.7	770	50	2	1.1	4	6	2.2	19	
5071B A	<5	1.0	18.0	1300	120	3	2.5	5	10	1.0	2	
5072B A	<5	0.8	11.0	910	100	<1	2.7	5	11	2.1	<1	
5073B A	<5	1.5	10.0	410	110	<1	5.0	8	9	2.0	2	
5074B A	<5	10.5	40.5	640	65	4	1.0	2	4	1.8	3	
5075B A	<5	10.4	21.0	420	50	2	0.7	3	7	2.3	6	
5076B A	<5	0.2	3.3	980	41	<1	0.7	3	15	1.9	6	
5077B A	<5	10.1	1.8	920	35	1	<0.5	<2	6	1.0	1	
5078B A	<5	0.3	4.1	1200	38	2	1.2	4	7	1.5	1	
5079B A	<5	0.9	3.5	1500	44	2	0.9	4	9	1.3	5	
5080B A	<5	1.3	5.2	1400	64	2	1.5	4	8	1.4	3	
5081B A	<5	0.7	3.1	1600	11	<1	0.3	3	6	1.2	4	
5082B A	<5	0.5	2.2	1700	10	2	0.6	3	5	1.1	1	
5083B A	<5	0.2	3.5	270	19	<1	<0.5	3	4	1.4	3	
5084B A	<5	0.4	7.5	1450	51	<1	0.7	2	5	1.4	3	
5085B A	<5	0.7	3.0	1500	43	<1	0.7	3	7	1.2	1	
5086B A	<5	0.3	5.3	2000	53	2	0.9	3	7	1.2	3	
5087B A	<5	0.2	5.7	1000	52	1	0.6	3	14	1.9	3	
5088B A	<5	0.3	5.3	1100	19	<1	<0.5	3	9	1.6	5	
5089B A	<5	0.3	10.5	1300	11	<1	0.3	3	7	1.5	2	
5090B A	<5	1.8	5.5	1700	35	3	0.9	3	5	1.2	2	
5095B A	<5	3.3	11.0	170	41	2	0.9	3	1	0.8	<1	
5096B A	<5	2.4	3.4	800	15	3	1.2	3	3	1.0	2	
5097B A	<5	1.3	5.3	2200	41	2	0.9	3	6	1.0	2	



REPORT: 010-0253

PROJECT: 23223-6-0360/01

PAGE 10

SAMPLE NUMBER	ELEMENT UNITS	Ir PPB	Au PPB	Th PPM	U PPM	WT g
50548 A		<50	170	14.0	5.6	7.16
50558 A		<50	10	14.0	5.2	6.22
50568 A		<50	9	10.0	5.0	6.75
50578 A		<50	45	14.0	5.5	7.48
50588 A		<50	12	15.0	8.3	7.00
50598 A		<50	23	14.0	7.5	7.17
50608 A		<50	7	14.0	6.8	6.45
50618 A		<50	6	36.2	31.9	7.09
50628 A		<50	21	21.5	9.3	6.50
50638 A		<50	10	14.0	11.0	6.20
50648 A		<50	33	11.0	5.5	6.42
50658 A		<50	8	33.3	33.9	5.76
50668 A		<50	9	21.2	11.0	6.45
50678 A		<50	71	19.0	8.3	7.98
50688 A		<50	1	8.5	6.5	6.41
50698 A		<50	77	15.0	10.0	7.61
50708 A		<50	10	13.0	14.0	9.40
50718 A		<50	7	29.8	19.0	6.21
50728 A		<50	1	33.9	14.0	6.64
50738 A		<50	3	33.9	19.0	6.45
50748 A		<50	16	23.4	12.0	6.10
50758 A		<50	5	34.4	13.0	6.30
50768 A		<50	6	23.0	7.2	7.85
50778 A		<50	42	10.0	2.7	8.92
50788 A		<50	4	16.0	6.6	9.44
50798 A		<50	<2	17.0	5.2	7.53
50808 A		<50	5	17.0	3.1	7.83
50818 A		<50	20	15.0	6.7	6.12
50828 A		<50	4	12.0	3.4	6.12
50838 A		<50	3	12.0	6.1	7.24
50848 A		<50	3	11.0	6.0	7.30
50858 A		<50	20	14.0	6.3	7.26
50868 A		<50	5	16.0	14.0	7.50
50878 A		<50	4	45.1	7.7	6.11
50888 A		<50	2	35.2	7.0	8.43
50898 A		<50	4	20.6	7.1	6.18
50908 A		<50	14	13.0	3.4	6.17
50918 A		<50	4	14.0	5.3	6.12
50928 A		<50	<4	11.0	6.5	5.40
50938 A		<50	5	13.0	5.0	6.63



REPORT: 016-5590

PROJECT: 23233-6-0060/01 PAGE 2A

SAMPLE NUMBER	ELEMENT UNITS	Sc PPM	Cr PPM	Fe PCT	Cu PPM	Ni PPM	Zn PPM	As PPM	Se PPM	Rb PPM	Mo PPM	Ag PPM
50580 A		19.0	<20	5.9	7	<20	<100	47.0	<5	85	37	<2
50590 A		16.0	<20	4.9	7	<20	<100	100.0	<5	110	9	<2
50600 A		15.0	26	4.6	6	<20	<100	91.1	<5	110	9	<2
50610 A		1.7	<20	0.7	<5	<20	130	7.2	<5	120	10	<2
50620 A		12.0	<20	2.6	11	<20	440	31.0	<5	160	7	<2
50630 A		16.0	23	4.4	9	<20	170	26.0	<5	120	6	<2
50640 A		14.0	22	3.4	10	<20	520	20.0	<5	87	15	<2
50650 A		1.9	<20	0.6	<5	<20	150	7.2	<5	130	11	<2
50660 A		10.0	<20	4.8	8	<20	140	8.0	<5	120	5	<2
50670 A		10.0	32	3.6	10	<20	<100	7.7	<5	120	4	<2
50680 A		4.3	<20	1.3	<5	<20	110	2.0	<5	81	3	<2
50690 A		5.1	<20	2.4	<5	<20	<100	6.5	<5	87	6	<2
50700 A		15.0	510	5.2	35	250	<100	31.0	<5	120	9	<2
50710 A		7.4	<20	3.6	<5	<20	210	43.0	<5	150	4	<2
50720 A		6.3	<20	2.9	<5	<20	230	23.0	<5	120	3	<2
50730 A		3.5	<20	1.3	<5	<20	270	6.6	<5	110	6	<2
50740 A		12.0	61	4.2	13	36	170	152.0	<5	280	3	<3
50750 A		5.0	35	1.9	<5	<20	<100	16.0	<5	310	<1	<2
50760 A		3.0	<20	0.9	<5	<20	<100	3.2	<5	100	2	<2
50770 A		2.0	<20	0.7	<5	<20	<100	0.3	<5	110	1	<2
50780 A		7.5	<20	2.6	<5	<20	<100	4.2	<5	110	5	<2
50790 A		6.9	<20	2.4	<5	<20	130	4.0	<5	110	3	<2
50800 A		11.0	<20	3.5	6	<20	<100	10.0	<5	100	3	<2
50810 A		11.0	<20	3.5	9	<20	170	11.0	<5	140	2	<2
50820 A		7.0	22	2.3	<5	<20	130	10.0	<5	92	3	<2
50830 A		6.5	24	2.6	<5	<20	200	29.0	<5	170	13	<2
50840 A		9.1	<20	2.7	7	<20	360	5.3	<5	140	4	<2
50850 A		11.0	23	2.2	10	<20	330	12.0	<5	120	3	<2
50860 A		10.0	<20	3.1	<5	<20	<100	5.3	<5	110	4	<2
50870 A		6.1	<20	2.3	3	<20	140	1.0	<5	120	<1	<2
50880 A		4.6	<20	2.6	<5	<20	<100	3.6	<5	110	2	<2
50890 A		5.4	<20	2.5	<5	<20	<100	6.5	<5	130	2	<2
50900 A		12.0	65	4.3	10	34	<100	21.0	<5	130	13	<2
50910 A		11.0	22	4.0	10	<20	<100	101.0	<5	160	31	<2
50920 A		18.0	22	3.6	7	<20	<100	73.0	<5	140	61	<2
50930 A		15.0	24	4.7	9	<20	<100	133.0	<5	110	9	<2
50940 A		17.0	<20	0.1	6	<20	140	55.0	<5	81	41	<2
50950 A		16.0	<20	4.0	7	<20	<100	122.0	<5	110	12	<2
50960 A		16.0	13	4.5	9	<20	<100	99.1	<5	130	11	<2
50970 A		3.5	<20	1.5	<5	<20	130	3.1	<5	110	13	<2



REPORT: 016-5500

PROJECT: 23233-6-0860/01 PAGE 22

SAMPLE NUMBER	ELEMENT UNITS	Cd PPM	Sb PPM	Cs PPM	Ra PPM	La PPM	Eu PPM	Tb PPM	Yb PPM	Hf PPM	Ta PPM	W PPM
50500 A		<5	2.4	2.8	1800	60	4	1.6	3	6	1.2	<1
50500 A		<5	1.1	6.7	2100	46	2	1.0	3	6	0.9	4
50500 A		<5	1.0	6.2	1900	49	3	0.9	4	6	0.9	5
50510 A		<5	2.0	3.3	270	49	<1	1.8	6	8	3.0	<1
50520 A		9	1.4	12.0	1100	96	2	2.1	5	6	1.1	<1
50600 A		<5	1.3	10.0	1700	59	5	1.1	3	6	0.9	2
50640 A		12	1.2	3.4	1600	60	3	1.2	4	5	1.0	3
50650 A		<5	2.0	3.7	300	48	<1	1.7	6	9	2.9	<1
50660 A		<5	1.5	11.0	1400	62	3	1.5	5	8	1.5	5
50670 A		<5	0.7	7.2	1500	53	2	1.0	3	6	1.3	2
50680 A		<5	0.3	4.2	1100	19	<1	<0.5	<2	5	1.1	2
50690 A		<5	0.5	6.1	1300	27	<1	<0.5	<2	4	1.0	4
50700 A		<5	1.5	3.7	740	34	2	1.1	5	3	2.4	17
50710 A		<5	0.9	15.0	1100	110	<1	1.9	4	7	1.2	3
50720 A		<5	0.6	7.9	990	150	<1	1.6	4	6	1.6	<1
50730 A		<5	1.2	7.7	540	100	<1	4.5	8	7	1.6	<1
50740 A		<5	10.2	37.1	720	52	2	0.3	<2	3	2.2	7
50750 A		<5	0.4	19.0	600	59	2	0.7	<2	5	1.6	3
50760 A		<5	0.2	2.8	920	42	2	0.7	3	10	1.9	3
50770 A		<5	<0.1	1.0	1000	31	<1	<0.5	<2	3	1.9	<1
50780 A		<5	0.8	0.6	1400	17	3	1.0	4	6	1.0	3
50790 A		<5	0.8	0.0	1600	24	<1	0.5	3	7	1.0	4
50800 A		<5	1.3	4.3	1100	33	2	1.0	3	7	1.2	3
50810 A		<5	0.7	7.2	1500	41	2	0.7	3	5	1.1	3
50820 A		<5	0.4	3.1	1500	14	2	0.7	<2	6	0.9	1
50830 A		<5	0.6	3.0	960	10	<1	<0.5	2	4	1.2	3
50840 A		<5	0.4	7.6	1500	30	<1	0.6	3	4	1.2	3
50850 A		<5	0.7	6.3	1700	41	2	0.8	3	6	1.3	4
50860 A		<5	0.6	5.0	2100	31	2	0.7	3	6	1.1	2
50870 A		<5	0.0	5.1	1100	25	1	0.7	2	5	1.0	2
50880 A		<5	0.2	3.2	1100	23	1	<0.5	<2	7	1.3	3
50890 A		<5	0.7	10.0	1300	12	2	0.8	2	3	1.5	<1
50940 A		<5	1.5	0.2	1600	50	4	1.4	4	5	1.3	3
50950 A		<5	5.4	17.0	1100	14	3	1.0	3	4	0.5	1
50960 A		<5	0.3	0.3	600	33	3	1.0	2	3	0.1	3
50970 A		<5	2.0	0.3	1300	25	4	1.3	3	7	1.1	1
50980 A		<5	2.6	1.3	1800	70	1	1.3	4	3	0.5	4
50990 A		<5	1.2	10.0	1700	11	4	1.1	4	1	1.0	3
50900 A		<5	1.1	7.1	1700	14	2	0.8	2	6	1.1	4
50910 A		<5	2.4	1.0	250	27	1	3.1	9	12	3.6	<1



REPORT: 016-5590

PROJECT: 23233-6-0960/01 PAGE 20

SAMPLE NUMBER	ELEMENT UNITS	Ir PPB	Au PPB	Ti PPM	U PPM	WT %
------------------	------------------	-----------	-----------	-----------	----------	---------

50580 A		<50	<4	14.0	7.6	5.01
50590 A		<50	12	14.0	6.9	3.77
50600 A		<50	6	12.0	6.4	7.15
50610 A		<50	3	28.9	26.6	7.06
50620 A		<50	<3	20.0	10.0	5.63

50630 A		<50	<3	14.0	11.0	5.65
50640 A		<50	13	10.0	6.1	3.33
50650 A		<50	<2	29.9	26.8	6.22
50660 A		<50	5	20.0	11.0	4.79
50670 A		<50	10	18.0	6.8	7.08

50680 A		<50	5	7.7	5.0	7.13
50690 A		<50	33	13.0	8.0	7.77
50700 A		<50	5	13.0	14.0	10.21
50710 A		<50	5	22.3	17.0	5.93
50720 A		<50	8	22.0	13.0	5.66

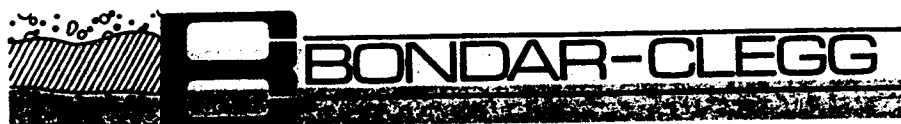
50730 A		<50	<2	23.1	13.0	7.53
50740 A		<50	<5	16.0	11.0	4.10
50750 A		<50	<3	25.3	9.1	5.32
50760 A		70	<2	27.5	6.4	7.34
50770 A		<50	<5	8.3	1.0	9.73

50780 A		<50	<2	13.0	6.3	7.86
50790 A		<50	3	14.0	5.3	6.91
50800 A		<50	<3	13.0	5.3	6.80
50810 A		50	9	13.0	6.1	7.66
50820 A		<50	<2	13.0	6.8	6.48

50830 A		<50	<2	12.0	3.2	7.40
50840 A		<50	<2	11.0	6.0	7.33
50850 A		<50	10	14.0	6.2	7.00
50860 A		<50	<3	17.0	12.0	7.57
50870 A		<50	<2	42.4	5.8	7.12

50880 A		<50	<2	19.0	5.1	11.00
50890 A		<50	<2	17.0	5.0	6.81
50900 A		<50	334	14.0	5.3	5.63
50910 A		<50	11	13.0	4.6	6.33
50920 A		<50	14	10.0	5.0	5.66

50930 A		<50	31	10.0	6.0	8.55
50940 A		<50	10	13.0	8.1	5.81
50950 A		<50	34	14.0	7.9	6.78
50960 A		<50	16	13.0	7.5	6.50
50970 A		<50	5	40.2	35.2	6.53



REPORT: 015-5550

PROJECT: 23233-6-0860/01 PAGE 3A

SAMPLE NUMBER	ELEMENT UNITS	Sc PPM	Cr PPM	Fe PPM	Co PPM	Ni PPM	Zn PPM	As PPM	Sr PPM	Rb PPM	Mo PPM	Ag PPM
50620 A		15.0	51	4.1	16	<20	520	45.0	<5	170	11	<2
50630 A		17.0	50	4.3	11	24	<100	52.0	<5	150	11	<2
50640 A		14.0	67	3.5	10	26	440	28.0	<5	100	15	<2
50650 A		2.2	<20	1.8	<5	21	160	10.0	<5	110	14	<2
50660 A		13.0	43	4.8	8	20	130	7.2	<5	140	8	<2
50670 A		12.0	58	3.9	9	22	170	9.0	<5	130	6	<2
50680 A		5.6	<20	1.7	<5	<20	110	2.4	<5	91	5	<2
50690 A		7.8	36	3.5	5	23	100	3.8	<5	90	12	<2
50700 A		16.0	510	5.1	34	270	110	31.0	<5	120	3	<2
50710 A		11.0	21	4.1	8	36	360	54.6	<5	150	11	<2
50720 A		10.0	50	3.9	6	<20	330	37.0	<5	130	8	<2
50730 A		5.2	27	3.6	<5	<20	250	6.8	<5	100	8	<2
50740 A		12.0	110	4.0	11	47	150	155.0	<5	270	9	4
50750 A		7.6	68	3.2	<5	<20	150	31.0	<5	260	2	<2
50760 A		4.3	29	2.2	<5	<20	170	5.8	<5	110	4	<2
50770 A		3.0	<20	3.6	<5	<20	<100	1.6	<5	110	3	<2
50780 A		10.0	42	3.0	<5	<20	100	5.0	<5	110	5	<2
50790 A		11.0	21	3.3	6	<20	<100	5.8	<5	110	4	<2
50800 A		14.0	53	3.8	8	<20	<100	17.0	<5	91	3	<2
50810 A		10.0	33	3.8	8	<20	150	18.0	<5	140	4	<2
50820 A		3.2	45	2.3	<5	25	170	11.0	<5	80	8	<2
50830 A		3.9	28	2.4	5	26	280	28.0	<5	180	20	<2
50840 A		10.0	30	2.7	7	<20	490	3.0	<5	160	7	<2
50850 A		13.0	38	3.7	10	<20	370	14.0	<5	140	3	<2
50860 A		14.0	36	3.6	6	<20	<100	7.1	<5	110	7	<2
50870 A		10.0	31	3.3	7	<20	250	7.6	<5	140	7	<2
50880 A		7.0	23	4.5	<5	<20	110	10.0	<5	120	5	<2
50890 A		8.2	<20	3.2	6	<20	160	10.0	<5	170	2	<2

REPORT: 016-5590

PROJECT: 23233-6-0860/01 PAGE 38

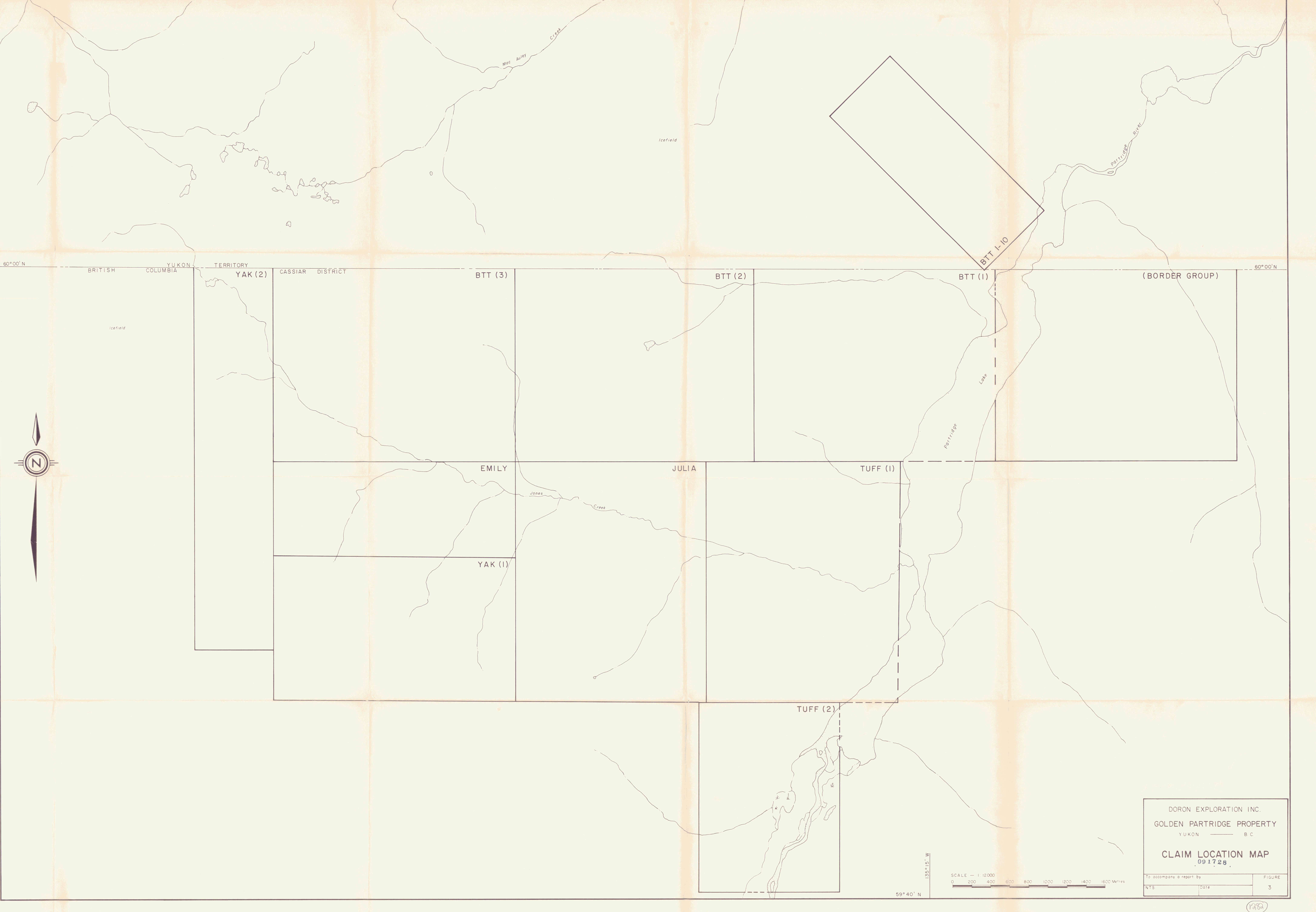
SAMPLE NUMBER	ELEMENT UNITS	Cd PPM	Sb PPM	Ce PPM	Ba PPM	La PPM	Eu PPM	Tb PPM	Yb PPM	Hf PPM	Ta PPM	W PPM
5062D A		14	1.3	17.0	950	123	4	2.5	6	7	1.3	2
5063D A		13	1.4	14.0	1600	65	3	1.3	5	6	1.2	2
5064D A		10	1.3	8.1	1300	57	2	0.9	4	6	0.9	5
5065D A		<5	2.3	5.9	210	79	<1	3.2	10	12	3.5	<1
5066D A		<5	1.3	12.0	1200	82	2	2.0	6	9	1.7	4
5067D A		<5	0.9	10.0	1200	74	1	1.6	4	9	1.4	3
5068D A		<5	0.4	5.9	1100	26	<1	<0.5	2	12	1.6	2
5069D A		<5	0.7	9.0	1500	50	2	0.7	3	11	1.2	6
5070D A		<5	1.4	5.5	740	24	1	1.1	5	6	2.4	18
5071D A		<5	1.0	20.0	1400	140	2	2.7	6	12	2.0	2
5072D A		<5	0.9	12.0	820	170	2	2.7	6	15	2.4	<2
5073D A		<5	1.5	9.3	990	110	2	4.9	10	9	1.6	3
5074D A		<5	11.5	45.0	620	52	2	1.5	5	4	1.7	7
5075D A		<5	10.3	24.0	320	90	<1	0.8	<2	7	2.2	5
5076D A		<5	0.4	3.7	570	37	<1	0.6	4	20	1.7	2
5077D A		<5	0.2	3.6	1000	32	1	<0.5	3	11	1.4	2
5078D A		<5	0.9	4.6	1400	66	2	1.6	4	9	1.5	4
5079D A		<5	1.0	1.0	1600	53	1	1.3	4	12	1.8	5
5080D A		<5	1.2	5.4	1300	71	3	1.7	4	9	1.2	4
5081D A		<5	0.7	7.0	1600	45	3	0.8	1	8	1.6	5
5082D A		<5	0.3	2.9	1700	41	1	0.7	2	8	1.2	3
5083D A		<5	0.8	8.3	1000	21	<1	<0.5	2	5	1.7	4
5084D A		<5	0.5	8.3	1400	23	2	0.7	3	5	1.4	5
5085D A		<5	0.3	9.3	1500	22	2	0.6	4	8	1.1	5
5086D A		<5	0.7	7.2	2200	46	3	1.0	2	10	1.4	3
5087D A		<5	0.4	7.3	1100	49	<1	1.0	4	20	2.3	<2
5088D A		<5	0.3	7.5	1000	51	2	0.7	3	14	1.6	7
5089D A		<5	1.0	23.0	1200	33	<1	1.5	4	10	1.3	4



REPORT: 013-0580

PROJECT: 23233-6-0860/01 PAGE 30

SAMPLE NUMBER	ELEMENT UNITS	Ir PPB	Au PPB	Th PPM	U PPM	WT g
50630 A	<50	24	24.0	10.0	5.00	
50632 A	<50	13	10.0	11.0	5.54	
50640 A	<50	46	13.0	6.0	3.06	
50650 A	<50	8	12.4	36.7	5.44	
50660 A	<50	11	23.7	12.0	8.27	
50670 A	<50	84	32.0	9.4	5.47	
50680 A	<50	7	12.0	8.7	8.10	
50690 A	<50	150	17.0	14.0	5.04	
50700 A	<50	7	13.0	14.0	8.92	
50710 A	<50	20	30.4	18.0	6.38	
50720 A	<50	63	37.0	16.0	5.39	
50730 A	<50	10	33.7	18.0	5.73	
50740 A	<50	12	38.0	14.0	4.47	
50750 A	<50	4	35.4	15.0	6.40	
50760 A	<50	62	34.0	8.8	6.61	
50770 A	<50	62	16.0	5.1	10.04	
50780 A	<50	63	19.0	7.7	6.84	
50790 A	<50	12	30.6	7.0	8.45	
50800 A	<50	63	23.1	6.7	1.77	
50810 A	<50	50	15.0	7.0	5.11	
50820 A	<50	5	13.0	4.1	5.47	
50830 A	<50	6	13.0	4.2	5.82	
50840 A	<50	63	10.0	6.6	6.77	
50850 A	<50	50	15.0	7.2	5.01	
50860 A	<50	7	10.0	18.0	2.05	
50870 A	<50	13	60.3	14.0	5.90	
50880 A	<50	62	34.5	10.0	8.83	
50890 A	<50	60	31.2	10.0	5.03	



DORON EXPLORATION INC.
GOLDEN PARTRIDGE PROPERTY
YUKON — B.C.

CLAIM LOCATION MAP
091728

To accompany a report by		FIGURE
NTS	Date	3



After: Geology by M.B. Lambert, 1967, 1968

59° 40' N

(27)

