

DIAMOND DRILLING PROGRAMME RANDI 1 AND 2 MINERAL CLAIMS KAMLOOPS MINING DIVISION KWOIEK CREEK-LOG CREEK, BOSTON BAR AREA B.C. NTS 92 I/4 LATITUDE 50°06'N, LONGITUDE 121°41'W

Paul Kallock Geologist

November 30, 2000 GEOLOGICAL SURVEY BRANCH



TABLE OF CONTENTS

SUMMARY1
INTRODUCTION
LOCATION MAP, Figure 1
CLAIM MAP, Figure 2 4
REGIONAL GEOLOGY MAP, 1:1,000,000 Scale, Figure 3 5
REGIONAL GEOLOGY
GEOLOGY, GOLD GEOCHEMISTRY, AND
PROPOSED DRILLING, 1:5000 Scale, Figure 47
DIAMOND DRILLING PROGRAMME 8
GEOLOGY AND MINERALIZATION
Lithology
Structure
Mineralization 10
Rock Geochemistry 11
DISCUSSION 11
SCHEMATIC BLOCK DIAGRAMS, CONCEPTUAL STYLE OF GOLD
OCCURRENCES AND STRUCTURE, Figure 5 12
SEPTEMBER 2000 DRILL AREA - SURFACE GEOLOGY 1:200 SCALE,
Figure 6 13
SEPTEMBER 2000 DRILL AREA - SURFACE ROCK GEOCHEMISTRY,
GOLD AND ARSENIC, 1:200 SCALE, Figure 7 14
SEPTEMBER 2000 DRILL AREA - GEOLOGY, 1:200 SCALE, Figure 8 15
SEPTEMBER 2000 DRILL AREA - ROCK GEOCHEMISTRY,
1:200 SCALE, Figure 9
PANORAMIC VIEW OF GOLD ZONES, Figure 10
CONCLUSIONS
RECOMMENDATIONS 19
COST ESTIMATE
GEOLOGIST'S CERTIFICATE
REFERENCES
COST STATEMENT, 2000 PROGRAMME

÷

APPENDIX:

Rock Sample Descriptions Diamond Drill Logs Analytical Procedures

DIAMOND DRILLING PROGRAMME RANDI 1 AND 2 MINERAL CLAIMS KAMLOOPS MINING DIVISION KWOIEK CREEK-LOG CREEK, BOSTON BAR AREA B.C. NTS 92 I/4 LATITUDE 50°06'N, LONGITUDE 121°41'W

SUMMARY

Mineralization that is typical of the model of "Low-Sulfide Au-Quartz Veins" or "Mother Lode Veins" is present at the Randi claims. There has been no previous drilling on the property. The objective of a brief drill programme, to determine the continuity of subsurface geology, was accomplished by coring 137.20 metres (450 ft) in 4 holes. Quartz with pyrrhotite and chalcopyrite, talc-carbonate alteration, and a through-going northwest-trending regional fault/shear zone that exceeds 34 metres (110 ft) in true width were intersected. Rock chip sampling and resampling in a trench above the drilled section returned values up to 5800 ppb gold (0.174 oz Au/ton) within a mineralized zone which is more than 10 metres (33 ft) in width. As is typical in many mines, mineralization may be interrupted by faulting on strike and dip. The +1.45 km (+4800 ft) length of soil and rock geochemical anomalies remains to be systematically drilled.

If a near-surface gold deposit in the order of 10 metres (33 ft) in width along the +1.45 km (+4800 ft) strike length were to be outlined in the next phase of drilling the topography could allow open cut mining to enhance a rapid return of capital while the underground was being developed.

Large tonnage gold deposits with similar geology to the Randi property such as Pioneer/Bralorne towards the northwest which produced 4 million ounces of gold from 7 million tonnes of 18 grams Au/tonne (0.523 oz Au/ton) from widths up to 15 metres (50 ft), and Carolin to the southeast which had reserves of 1.5 million tonnes of 4.8 grams Au/tonne (0.140 oz Au/ton) in 1982 are the scale of targets.

In the next phase of exploration a 3000 metre (10,000 ft) diamond drilling programme at a cost of \$618,000 is recommended. If results are favourable, a subsequent phase of extensive drilling would cost \$1,030,000, for a total of \$1,648,000 in the next two phases.

1

INTRODUCTION

The Randi 1 and 2 claims are located on the eastern side of Pyramid Mountain approximately 16.5 km southwest of Lytton and 24 km northwest of Boston Bar, B.C. Easiest access is via helicopter from Boston Bar, B.C. Roads from Boston Bar lead northerly along the west side of the Fraser River and westerly into the valley of Kwoiek Creek. Logging roads extend southerly from the valley bottom up tributary drainages in the northwest corner of the property. These roads have slumped at higher elevations and would require reopening with a dozer. Access at present is via gravel road from Boston bar for 25 km, up the Nahatlach River valley and thence 17 km on the Log Creek and feeder forest service roads, which now cross the southern end of the Randi claims. Drilling equipment used in the current exploration programme was airlifted by helicopter from this road. Elevation of the property ranges between 1465 m at the southeast corner to 2205 m on Pyramid Mountain along the west central edge of the claims. The claims cover an area of 400 hectares (988 acres).

Record data of the claims are as follows:

Claim Name	Size in Units	Tenure Number	Record Date
Randi 1	8	216975	January 7, 1981
Randi 2	8	216976	January 7, 1981

In 1986 a field programme of exploration including geological mapping, trenching and rock geochemical sampling, magnetometer and VLF-EM surveys, and soil sampling was carried out on the Randi claims. Results of this work were detailed in a report in October 1986 which was filed for assessment work. Geological mapping was completed in the southwestern corner of the property in 1996 to explore for a possible source of several above-background gold values in the 1986 survey (Goldsmith, 1996, filed for assessment work). In 1998, detailed soil geochemistry with rock chip sampling and geological mapping confirmed and expanded a previously detected portion of the anomaly





LOCATION MAP

RANDI 1 & 2 MINERAL CLAIMS

PYRAMID MOUNTAIN B.C. NTS 92 1/4 KAMLOOPS MINING DIVISION TO ACCOMPANY REPORT BY P. KALLOCK, GEOLOGIST NOVEMBER 2000 FIGURE 1

3



NOVEMBER 2000

4

FIGURE 2



in the vicinity of 1+25 W, 0+50 N to 4+00 W, 1+00 N (Goldsmith, 1998, filed for assessment work). There has been no previous drilling on the property.

In September 2000 a shallow hole diamond drilling programme was undertaken to develop a cross section of the geology and mineralization at one location where elevated gold values were found during the 1986 exploration programme. The drill was sited at the 1+80 E, 0+00 S trench-area where rock samples with up to 0.174 oz/ton gold had been collected within a zone that is more than 9.7 metres (32 ft) wide. This report documents the results of this 137.20 metre diamond drilling programme and resampling of the trench.

REGIONAL GEOLOGY

The general geological relationships covering the area are shown on Energy, Mines and Resources Canada Map 1386A (Roddick et al., 1979). The sedimentary rocks are grouped as Mesozoic phyllite and schist, and the serpentinite belt as Mesozoic ultramafic rocks. Part of this map is included as Figure 3 to which the location of the Randi property has been added. Also shown is the location of the Bralorne/Pioneer gold camp, to the northwest of the Randi claims, which produced more gold than any other camp in British Columbia [7 million tonnes of 18 grams per tonne gold or 4 million ounces of gold (0.523 oz Au/ton) (Barr, 1980)]. At Bralorne zones were mined from a metre or two to 15 metres (50 feet) in width. High-grade deposits tended to occur near the serpentinite (Cairnes, 1937). In the opposite direction, to the southeast of the Randi claims, is the Carolin gold mine which had reserves of 1.5 million tonnes grading 4.8 grams per tonne when production started in 1982 (Ray et al., 1986).

There are many similarities in rock type and structural setting between the Randi property and both the Bralorne and the Carolin mining areas. At both gold camps, serpentinite is adjacent or immediately southwest of ore bodies. The Bridge River Group (at Bralorne) and the Ladner Group (at Carolin) are sedimentary rocks of Paleozoic and



Triassic age. Rocks at the Randi claims are possibly equivalent. The Cadwallader Group (at Bralorne) is upper Triassic and the Ladner Group (at Carolin) is lower to mid-Jurassic. At the Randi claims the Mesozoic sedimentary rocks, particularly the phyllite, could be equivalent to either the Ladner or Cadwallader Groups.

Major terrane-bounding structures are present in this part of B.C. At Bralorne the Fergusson and Cadwallader faults bisect the mining camp (Leitch and Godwin, 1986). At Carolin, the Hozameen Fault bisects the mining camp (Ray, 1984). Furthermore, right-lateral strike-slip displacement is apparent on the Hozameen Fault and its northwest extension, the Yalakom Fault (Kleinspehn, 1985). It is speculated that right-lateral faulting which was seen at Randi claims (Kallock, 1986) and faulting at Bralorne may be linked to the Yalakom/Hozameen fault system.

DIAMOND DRILLING PROGRAMME

Between September 14 and September 22, 2000 a diamond drilling programme was conducted at the Randi claims. Four short holes totaling 137.20 metres were cored with a Hydracore 28 drill rig. The core was examined, logged, and sampled by the author on-site during the drilling. Plans and cross-sections of the drill area are included as Figures 6 to 9.

GEOLOGY AND MINERALIZATION

Lithology

For details of the property geology refer to the prior exploration report by Kallock (1986). At the drill site, phyllite of the Jurassic/Ladner Group (?) was the predominant rock type encountered. As can be seen from the 1:200 geology plan map and the drill hole profile, this unit was cored in drill holes R-00-01 and R-00-02 and in the upper parts of drill holes R-00-03 and R-00-04. The phyllite is generally light brown or tan, to light green depending upon the amount of chlorite, mica, calcite or quartz. However, there are

also numerous sections of gray to black phyllite where graphite is a greater component. Less common are horizons which appear to have more quartz grains which probably represent quartzite beds. Within the phyllite are occasional sections of volcanic greenstone(?) which are moderately soft, homogenous, fine-grained and gray to light green in colour.

Serpentinite is in fault contact with phyllite. It was intersected in the lower parts of both R-00-03 and R-00-04. The serpentinite is light to dark green with abundant white, soft talc and green serpentine. It displays countless fractures commonly with slickensides.

Hard, black unaltered basalt dykes and sills were intersected in all of the drill holes but appear to be most abundant with the phyllite near the serpentinite contact. It is clearly the youngest rock type and post-dates most quartz and sulphide.

Structure

Faulting as evidenced by numerous planes with slickensides is particularly strong within 10 metres of the serpentinite/phyllite contact. Black basalt dykes and sills have been intruded into these structures. Graphite, chlorite or talc are commonly associated with these planes of weakness.

A strong talc-altered shear zone was bisected in R-00-01 at 4.35 to 4.45 m. It was again penetrated by R-00-04 three metres deeper where the drill intercept exceeds 2 metres. Attitude of shear planes indicates a steeply northeast dipping structure approximately parallel to the foliation of the phyllite and to the phyllite/serpentinite contact.

From 11.20 to 12.70 m in R-00-01 graphitic shears are present at basalt dyke contacts and in phyllite shear zones. Attitudes vary from 45 to 70 degrees to the core axis, possibly sub-parallel to phyllite foliation. Deeper in this hole, between 35.63 and 42.68 m, quartz, graphite schist is the dominant rock type. Undoubtedly, some shearing has taken place along the planes of foliation.

Abundant clay gouge indicates strong faulting at the serpentinite contact in R-00-04. The serpentinite is laced with talc and serpentine alteration and numerous slickensides.

9

Mineralization

Quartz and calcite are very common in the phyllite in all four drill holes. Calcite is abundant on foliation (cleavage) partings and as coatings on cross-cutting fractures. It also occurs as disseminations in some horizons or beds.

Quartz is found in siliceous beds of quartzite; as quartz partings along cleavage planes; as white, barren, irregular veins; as a siliceous alteration of the phyllite accompanied by sulphides and/or chlorite; and as cross-cutting veinlets or stringers which may also contain sulphides.

Minor limonite and hematite were observed in the upper parts of each hole. Quartz was also present and in some cases voids or vugs in the quartz indicated the dissolution of a carbonate or sulphides.

The longest drill hole, R-00-01, which reached a length of 60.98 m tested the area beneath the high gold values (up to 0.174 oz/ton) found in the surface trench. Four sections of the core displayed quartz veins with pyrrhotite (iron sulphide) mineralization, two of these sections also showed traces of chalcopyrite. Graphite and chlorite were also common.

A talcose-altered shear zone encountered in the upper part of R-00-01 was also intersected in R-00-04. The zone appeared to widen with depth.

The strongest silicification and sulphide mineralization was encountered in R-00-03 between 9.05 and 9.59 m. Here, a silicified zone displays white barren quartz as large irregular veins and pinkish-tan quartz as wisps and breccia fragments. The zone is also bisected by quartz veinlets which have pyrrhotite and chalcopyrite within and adjacent to them. The host phyllite is also silicified and contains abundant chlorite and fine disseminated pyrrhotite. This zone appears to narrow with depth and was not encountered in R-00-04. It may have been displaced by faulting at the serpentinite contact above R-00-04.

Clay gouge was seen at the serpentinite contact in R-00-04. The serpentinite itself has abundant talc and 1 to 5% disseminated magnetite.

Rock Geochemistry

Zones which display quartz and sulphides in the core were split and half of the sample was bagged and shipped to ALS Chemex Labs in Vancouver, B.C. for 32 element ICP plus gold analyses. Certificates of Analysis and Analytical Procedures are included in the Appendix. Sample intervals, gold, and arsenic results are shown on Figures 6 to 9.

Re-sampling of the trench above the drill holes confirmed the presence of gold and arsenic which was found and documented in 1986. Six rock chip samples varying from 0.8 to 1.8 m in length contained gold values between 295 and 5240 ppb (0.168 oz Au/ton) and from 384 to 7860 ppm arsenic, within a zone which is at least 10 metres (33 ft) in width.

DISCUSSION

Drill hole R-00-01 encountered continuous shearing and foliation over the 61 metre (200 ft) length, thus confirming that a strong structure in excess of 34 metres (110 ft) true width is present. Various possibilities are examined to explain why the gold zone that was sampled and resampled in outcrop was not intersected. Figure 5, Schematic Block Diagram, illustrates points 1 to 4.

1. Post-mineral faulting may have caused offsets on both strike and dip. This has not as yet been observed but geophysical patterns suggest dislocations.

2. Faulting transcurrent to the shear zone may contain important mineralization as at Bralorne.

3. Mineralization may be discontinuous with pinching and swelling on both strike and dip. The hole may have passed through a barren zone.

4. Silicification may be oriented at a flat northerly or northeasterly dip, transcurrent to shearing and foliation (possibly parallel to cross faulting) and thus dip away from the drill hole.

The strongly anomalous zone remains to be tested by more extensive drilling, oriented to test possible structural controls in addition to shearing and foliation.





To Accompany Report by P. Kallock, Consulting Geologist









As stated in the Regional Geology section of this report, the mineralization and geologic setting at Randi claims is very similar to the Pioneer/Bralorne and Carolin gold mines. These ore deposits are both classified as "Low-Sulfide Au-Quartz Veins" (also known as Mother Lode Veins or Mesothermal Quartz Veins) by Cox and Singer (1986) and are used in their Mineral Deposit Models published by the U.S. Geological Survey.

Significant features of these types of deposits include mineralogy of quartz with native gold, base metal sulphides, pyrite and arsenopyrite, with or without pyrrhotite. Alteration includes quartz and iron carbonate plus albite in veins with haloes of carbonate alteration; talc is common in areas of ultramafic rocks (serpentinite). Veins are persistent along regional high angle faults and joint sets; gold values may vary widely along strike and dip. High grade ore shoots tend to occur at metasediment-serpentinite contacts. In general, arsenic is the best pathfinder.

Figure 10 is a photographic panorama looking northeasterly across the centre of the zone of gold mineralization. Topographic features obscure the northwestern and southeastern extensions. Overburden depth averages perhaps 1.5 metres (5 feet). Water in the pond, which parallels approximately 25% of the strike length of the mineralized zone, is available for exploration drilling and mining. Should partial drainage of the pond be required the existing channel to the right of the photo could be deepened to allow the water to flow in its natural drainage. If the next phase of drilling is successful in delineating a mineable gold deposit near surface, the photo suggests that open cut mining could be feasible as a means for early rapid extraction of tonnage while the underground was being developed, thus abbreviating a time period for return of capital expenditures.

CONCLUSIONS

. 1

Silicification, talc alteration, quartz veins and sulphide mineralization were encountered in the shallow diamond drilling programme. In addition, very strong northwest trending faulting and shearing were also found within phyllite, quartz-graphite schist, in talc altered phyllite, at contacts with basalt dykes and sills, and at the contact with the serpentinite. The strong shearing revealed by the diamond drilling programme

18

indicates that a major regional fault system passes through the Randi property. This faulting may link with the Hozameen-Yalakom Fault. Mineralized or post-mineral cross-faulting is suggested.

Significant gold or arsenic values were not encountered in the drill core. However, surface rock chip sampling reconfirmed the presence of gold values to 5240 ppb (0.168 oz Au/ton) and arsenic to 7860 ppm in trenching northeast (upslope) from the drill site.

Strong similarities in structural setting, lithologies and mineralization between the Randi property and the Carolin gold-camp to the southeast and Pioneer/Bralorne gold-camp to the northwest, add support to the continuation of exploration of the long geochemical and geophysical anomalies which remain untested. The anomalous zone as defined by soil and rock geochemistry is +1.45 km (+4800 ft) long and parallels the east side of the serpentinite. Parallel zones are situated 150 and 500 metres (500 and +1650 feet) to the northeast.

RECOMMENDATIONS

Short-hole diamond drilling of the anomalies with a light rig which could be easily moved between drill sites without the use of a helicopter appears to be the most advantageous exploration method.

Fans of 2 or 3 drill holes from each of at least 19 sites are recommended as the next program to test the 1.45 km (4800 ft) long gold-arsenic anomaly. From northwest to southeast the drill areas should include:

- From 1+50 W, 1+00 N to 4+00 W, 2+00 N, a part of the soil anomaly with values up to 2300 ppb Au at 3+00W, 1+50 N.
- Adjacent to the saddle area at 0+00 N, 0+00 W where 1100 ppb Au is present in phyllite in an exploration trench.
- 75 m northwest of the present drill area where 880 ppb au was returned from sheared quartz vein material.
- At 3+00 E, 0+04 S a grab sample of reddish brown soil and quartz fragments carried 1400 ppb Au.
- Near the southeast end of the pond between 4+00 E and 5+00 E where 1350 ppb Au was found in a 3.0 m rock chip sample of reddish brown phyllite.

COST ESTIMATE

Phase 2 has been completed as outlined in the Kallock (1986) report.

Phase 3

Diamond drilling, 3000 m (10,000 ft)		
@ \$102/m (\$31/ft) all inclusive	310,000	
Drill site preparation	15,000	
Helicopter support	30,000	
Room, board	20,000	
Vehicles, fuel	15,000	
Analyses	20,000	
Geological support, supervision	90,000	
Report	<u>15,000</u>	
	515,000	
Contingencies @ 20%	<u>103,000</u>	
Total, Phase 3	\$618,000	\$618,000

Phase 4

Continued diamond drilling,		
allow 5000 m, plus support services	\$1,030,000	1,030,000
Total.	Phases 3 and 4	\$1,648,000

Results of each Phase should be compiled into an engineering report. Continuance to each subsequent Phase should be contingent upon favourable conclusions and recommendations from an engineer.

Respectfully submitted,

DCIATIC 000 Paul Kallock PAUL KALLOCK Geologist ELION

Vancouver, B.C. November 30, 2000

GEOLOGIST'S CERTIFICATE

I, Paul Kallock, do state: that I am a geologist with Arctex Engineering Services, 301-1855 Balsam Street, Vancouver, B.C.

I Further State That:

- 1. I have a B.Sc. degree in Geology from Washington State University, 1970. I am a Fellow of the Geological Association of Canada.
- 2. I have engaged in mineral exploration since 1970, both for major mining and exploration companies and as an independent geologist.
- 3. I have authored the report entitled, "Diamond Drilling Programme, Randi 1 and 2 Mineral Claims, Kamloops Mining Division, Kwoiek Creek-Log Creek, Boston Bar Area, B.C." The report is based on my field work carried out on the property and on previously accumulated geologic data.
- 4. I have no direct or indirect interest in any manner in the property, nor do I anticipate receiving any such interest.
- 5. I consent to the use of this report in a prospectus or in a statement of material facts related to the raising of funds.

DL KALLOCK Paul Kallock Geologist 110V

Vancouver, B.C. November 30, 2000

REFERENCES

Barr, D.A., 1980. Gold in the Canadian Cordillera. C.I.M. Bull. Vol. 73 No. 818: 59-76.

- Cairnes, C.E., 1937. Geology and Mineral Deposits of the Bridge River Mining Camp, B.C. GSC Memoir 213.
- Cox, D.P. and Singer, D.A., 1986. Mineral Deposit Models, USGS Bulletin 1693, pp. 230-243.
- Duffell, S. and McTaggert, K.C. 1952. Ashcroft Map Area, B.C. GSC Memoir 262.
- Goldsmith, L.B., 1984. Soil geochemical, VLF-EM, magnetic surveys, and channel sampling, Randi 1 and 2 mineral claims, Kamloops Mining Division. Private report for Noble Peak Resources Ltd., filed for assessment work.
- Goldsmith, L.B., 1996. Geological mapping, Randi 1 and 2 mineral claims, Kamloops Mining Division, Kwoiek Creek, Boston Bar Area, B.C. Private report field for assessment work.
- Goldsmith, L.B., 1998. Soil geochemistry and geological mapping, Randi 1 and 2 mineral claims, Kamloops Mining Division. Private report filed for assessment work.
- Horwood, H.C., 1936. Nahatlach Region. GSC Paper 36-7.
- Kallock, P., 1986. Geological, rock and soil geochemical, VLF-EM, and magnetic surveys, Randi 1 and 2 mineral claims, Kamloops Mining Division. Private report for Madrona Resources Inc., filed for assessment work.
- Kleinspehn, K.L., 1985. Cretaceous sedimentation and tectonics, Tyaughton-Methow Basin, southwestern British Columbia. Can. J. Earth Sci. 22 No. 2: 154-174.
- Leitch, C. and Godwin, C.I., 1986. Geology of the Bralorne-Pioneer Gold Camp. Geological Fieldwork 1985. B.C. Ministry of Energy, Mines, and Petroleum Resources. Paper 1986-1: 311-316.
- Logan, J.M. and Goldsmith, L.B., 1981. Preliminary geological investigation of the Randi 1 and Randi 2 mineral claims, Kamloops Mining Division. Private report for Short Staun Enterprises, filed for assessment work.
- Ray, G.E., 1981. Carolin mine-Coquihalla gold belt project. B.C.E.M.R. Geological Fieldwork, 1981, Paper 1982-1.
- Ray, G.E., 1986. The Hozameen fault system and related Coquihalla serpentinite belt of southwestern British Columbia. Can. J. Earth Sci. 23: 1022-1041.
- Ray, G.E., Shearer, J.T. and Niels, R.J., 1986. The geology of the Carolin Mine gold deposit in SW B.C. and the geochemistry of its replacement sulphide-albite-quartzgold mineralization. B.C.-M.E.M.P.R., Geological Fieldwork 1985, Paper 1986-1.

Roddick, J.A. et al., 1979. Fraser River. B.C.E.M.R. Map 1386 A.

COST STATEMENT, 2000 PROGRAMME

1. Personnel

 \langle

	L.B. Goldsmith, Sept. 11-22, 0.25 Nov. 2, 0.25 7, 0.5 8, 0.5 9, 0.5 10, 0.5 11, 0.25 16, 0.5 17, 0.25 18, 0.5 22, 0.25 23, 0.5 25, 0.5 26, 0.25 27, 0.25 28, 0.25 29, total 18 days @ \$640/day \$11520 (x
	0.25 20, 0.25 29, 0.001 18 days = $0.000 day = 0.1520x$	
	P. Kallock, Sept. 17-21, Oct. 30, 31, total 7 days @ \$300/day 2100.0	00
	CW Donald-Hill Sept 15-22	
	total 8 days @ \$250/day 2000.0 15620.0	<u>)0</u>)0 \$15620.00
2.	Diamond Drilling	
	137.20 metres (450 ft) cost = \$142.13 m (\$43.33/ft)	19500.00
3.	Transportation	
	4x4 vehicles, 2, 15 vehicle days @ \$60/day 900.0 2947 km @ \$0.45/km 1326.1 374.2)0 15 13
	Gas 574.3 Repairs 52.4 2652.9	14 14 92
	2652.92 + 15 vehicle days = 176.86 /vehicle/day Helicopter 4110.4 6763.3	<u>41</u> 33 6763.33
4.	Accommodation, Meals	1471.12
	\$1471.12 + 25 man days = \$58.84/man/day	
5.	Analyses	
	38 samples cost = \$29.76/sample	1130.98
6.	Supplies	
	Sample bags, topofil	13.42
7.	Report	
	Drafting, word processing, materials, prints	<u>2637.97</u>
		\$47136.82

APPENDIX

1

ROCK CHIP SAMPLE DESCRIPTIONS

TRENCH 1+80E 0+00 TO 0+12S

Sample numbers are the metric distance upslope (approximately 025°) from drill collar R-00-3.

Randi #	Description	Au (ppb)	As (ppm)
5.7-6.5	0.8 m chip of siliceous phyllite with weak orange limonite and calcite. Minor quartz veinlets.	55	242
13.3-14.4	1.1 m chip of strong reddish hematite and orange limonite (possibly ankerite) in soft, recessive weathered phyllite except for occasional 1 cm quartz vein. Foliation at 295°, 75° NE.	5240	3600
14.4-15.7	1.3 m chip of more resistant, siliceous (?) greenish to limonitic orange phyllite.	530	1840
15.7-16.7	1.0 m chip of soft hematitic soil and weathered phyllite.	3890	7860
16.7-18.4	1.7 m chip of greenish tan to light brown phyllite with several quartz veins to 1 cm.	745	906
20.4-21.2	0.8 m chip of white weakly foliated quartz in siliceous phyllite.	295	384
21.1-23.0	1.8 m chip of reddish brown hematite in soft phyllite and orange limonite with iron carbonate in tan to gray phyllite.	2100	5750

DIAMOND DRILL HOLE RECORD

SHEET No. 1 OF 3 PROPERTY: RANDI DRILLED FROM: SURFACE LATITUDE: 0+31S

1. 1

CORE SIZE: NQ DEPARTURE: 1+75E LENGTH: 60.98 M (200 FT) BEARING: 045° DIP: -45° HOLE No.: R-00-01 START: 15 SEPTEMBER 2000 FINISH: 17 SEPTEMBER 2000 ELEVATION: 1891 METRES

METRIC IN FROM	METRIC INTERVAL DESCRIPTION FROM TO		FROM	TŎ	Au ppb	Ag ppm
0.0	1.8	Overburden; no core.				
1.80	2.13	Mixed overburden, pebbles of granite phyllite and core of gray phyllite and green phyllite with weak iron oxide.	1.80	2.51	10	0.2
2.13	2.25	Greenish-gray phyllite, foliation at 55° to core axis.				
2.25	3.05	Dark gray phyllite with foliation generally at 70° to core axis. Interval has two irregular quartz veins which are partially parallel to foliation. Quartz is vuggy with minor hematite.	2.51	3.05	<5	<0.2
3.05	4.35	Brownish-green phyllite with foliation at 60° to core axis, occasional quartz ± calcite on foliation partings.	3.05	4.35	ব	0.4
4.35	4.45	White to light green talcose altered phyllite in probable shear zone. Irregular quartz and calcite veins with minor ankerite and limonite in upper 5 cm. Foliation and shearing at 35° to core axis.	4.35	4.57	<5	0.2
4.45	9.00	Generally light greenish gray, finely laminated phyllite. Occasional non-foliated section (greenstone?) as at 4.75-4.90. At 6.20 and 7.60 foliation at 50°. Occasional quartz and calcite veinlets subparallel to foliation.	4.57 6.10 6.80	6.10 6.80 8.02	ব্য ব্য ব্য	0.2 0.2 0.2
9.00	10.60	Gray finely laminated phyllite with foliation at 45° to core axis, minor quartz \pm calcite.				
10.60	12.00	Light green phyllite, commonly with calcareous sections, probably calcarenite. Occasional quartz veinlet. Black basalt dyke between 11.20 and 11.30 m. White, barren quartz subparallel to foliation from 10.60 to 10.70 m. From 11.20 to 11.30 black basalt dyke with graphitic shear at both upper and lower contacts at 60° to core axis which is parallel to foliation.				

· 、

HOLE No.: R-00-01

METRIC IN FROM	NTERVAL TO	DESCRIPTION	FROM	TÔ	Au ppb	Ag ppm
12.00	12.70	Mixed gray and light green phyllite with occasional graphitic shear such as at 12.20 and 12.70 m which are 55° and 70° to core axis, respectively. Lesser calcareous beds than previous section.				
12.70	16.00	Light green phyllite. 12.68 foliation at 65° to core axis. 13.72 2 cm quartz vein at 70° to core axis which cross-cuts foliation. 15.00 foliation at 50° to core axis.				
16.00	16.50	Mixed gray and green phyllite.				
16.50	16.77	Green, weakly foliated phyllite (?) with 10% disseminated calcite granules (?) or phenocrysts (?) and a central 3 cm quartz vein. Foliation of section is at 55° to core axis.				
16.77	24.60	Mostly light green phyllite with minor gray phyllite. Foliation at 50° to 55° to core axis is accentuated by light green mica and lesser white quartz.				
24.60	25.64	Non-foliated, medium soft, light grenish gray, homogenous greenstone (?) sill (?). No siliceous or calcareous.				
25.64	35.63	Light green phyllite with local barren, irregular white quartz. Lesser quartz with traces of pyrrhotite as at 26.75-26.84 which is hosted in light green phyllite. At 30.40 m foliation at 50° to core axis. At 34.50 foliation is 45° to core axis.	26.75	26.84	ব	1.0
35.63	42.68	Mostly dark, gray, graphitic, quartz schist or phyllite, locally 1-3% pyrrhotite. Foliation is 35° at 35.70 m. 35.90-40.00 m shows 5-10% pyrrhotite as fine disseminations in dark gray to black phyllite. Foliation is 45° at 37.00 m. 37.35-38.11 m at least half of core is white quartz. 40.00 m 1 cm graphite vein at 40° to core axis. 42.00 foliation at 40° to core axis.	35.95 37.35 38.70	37.35 38.70 40.00	15 <5 5	0.2 <0.2 <0.2

HOLE No.: R-00-01

METRIC IN FROM	TERVAL TO	DESCRIPTION	FROM	то	Au ppb	Ag ppm
42.68	47.25	Light greenish tan phyllite with abundant white calcite in 1-2 mm foliation partings and as larger veins up to 4 cm. Minor gray phyllite. 45.30 m foliation at 40° to core axis.				
47.25	48.10	White thinly bedded quartzite with dark partings of lesser gray phyllite, foliation is 35-40° to core axis.				
48.10	49.70	Greenish tan phyllite with abundant calcite and minor quartz.				
49.70	50.70	Phyllite, the upper 35 cm are strongly silicified with occasional quartz \pm pyrrhotite veinlet such as at 49.90 which is oriented at 25° to core axis. Green chlorite is also common. The central 0.5 m of the section has disseminated calcite within the phyllite. The lower 70 cm has more biotite within the phyllite foliation.	49.70	50.70	10	<0.2
50.70	52.27	Quartzite and phylite. Abundant calcite and biotite in the foliation partings. Chlorite is also present and foliation is generally at 55° to core axis. At 51.00 the quartzite (possibly silicified phyllite) has traces of pyrrhotite and chalcopyrite.	50.70	52.27	<5	0.2
52.27	54.68	Brownish gray phyllite with moderate to strong calcite. At 53.00 m foliation at 40° to core axis.			8	
54.68	55.60	Quartz vein with both upper and lower contacts at 60° to core axis. Lower contact is parallel to foliation of phyllite. At 54.92 m a 1 cm quartz vein at 45° to core axis bisects the larger quartz vein and contains 3% pyrrhotite and trace chalcopyrite. After core splitting, pyrrhotite was also seen in chlorite altered phyllite inclusions within the larger quartz vein.	54.68 54.88 55.16	54.88 55.16 55.60	ব্য ব্য ব্য	<0.2 0.2 <0.2
55.60	60.98	Light gray to light greenish gray phyllite which contains abundant calcite. 57.80 m foliation at 20° to core axis. 59.00 m foliation at 40° to core axis. 60.78 m shows 4 cm quartz vein with chlorite and biotite phyllite and 3-5% pyrrhotite oriented at 45° to core axis. 60.98 m End of hole.				

DIAMOND DRILL HOLE RECORD RANDI — HOLE NO. R-00-01 — PERCENT CORE RECOVERY

METRIC IN FROM	% CORE RECOVERY	
0.0	3.05	58
3.05	4.57	56
4.57	6.10	77
6.10	7.62	99
7.62	9.15	100
9.15	10.67	100
10.67	12.20	100
12.20	13.72	100
13.72	15.24	93
15.24	16.77	89
16.77	18.29	89
18.29	19.82	68
19.82	21.34	100
21.34	22.87	100
22.87	24.39	100
24.39	25.91	100
25.91	27.44	100
27.44	28.96	100
28.96	30.49	100
30.49	32.01	100

METRIC IN FROM	METRIC INTERVAL FROM TO						
32.01	33.54	100					
33.54	35.06	100					
35.06	36.59	100					
36.59	38.11	100					
38.11	39.63	100					
39.63	41.16	100					
41.16	42.68	100					
42.68	44.21	100					
44.21	45.73	100					
45.73	47.25	100					
47.25	48.78	100					
48.78	50.30	100					
50.30	51.82	100					
51.82	53.35	100					
53.35	54.88	100					
54.88	56,40	100					
56.40	57. 9 3	100					
57.93	59.45	100					
59.45	60.98	100					
End of hole 60.98							

DIAMOND DRILL HOLE RECORD

SHEET No. 1 OF 2 PROPERTY: RANDI DRILLED FROM: SURFACE LATITUDE: 0+31S

 $(1,1) \in \mathbb{R}^{n}$

CORE SIZE: NQ DEPARTURE: 1+75E LENGTH: 19.82 M (65 FT) BEARING: 045°DIP: -70° HOLE No.: R-00-02 START: 17 SEPTEMBER 2000 FINISH: 19 SEPTEMBER 2000 ELEVATION: 1891 METRES

. 7 3

METRIC IN FROM	NTERVAL TO	DESCRIPTION	FROM	то	Au ppb	Ag ppm
0.0	2.70	Overburden. No core.				
2.70	3.55	Light green thinly foliated phyllite. Foliation at 25° to core axis. Minor quartz stringers at 70° (perpendicular to foliation). Phyllite weak limonite and moderate calcite.	2.70	3.55	<5	0.2
3.55	3.95	Black phyllite with foliation at 20°, minor quartz as stringers.	3.55	4.57	<5	0.2
3.95	4.57	Light green phyllite.				
4.57	9.15	Alternating light green to dark gray phyllite. 6.10 m foliation at 20° to core axis. 6.35-6.40 m 3 cm white quartz vein with weak limonite at 30° to core axis, bisects phyllite obliquely. 7.62 m foliation at 30° to core axis.	6.35	6.40	<5	0.6
9.15	11.27	Black, graphitic schist and phyllite and lesser green phyllite with two zones of white, barren quartz up to 0.3 m in core length. Quartz is subparallel to core axis. 10.60 m foliation at 10° to core axis.				
11.27	13.50	Mostly gray phyllite, lesser light green phyllite, minor graphitic schist. Calcite is common on bedding or cleavage planes. 11.70 m foliation at 5° (nearly parallel) to core axis. 12.30 m foliation at 15° to core axis.				
13.50	13.92	Black basalt dyke with sharp intrusive contacts oriented at 45° to core axis.				
13.92	14.90	Gray phyllite.				

HOLE No.: R-00-02

METRIC IN FROM	TERVAL TO	DESCRIPTION	FROM	TO	Au ppb	Ag ppm
14.90	17.77	Black basalt dyke with upper and lower contacts at 45° to core axis.				
17.77	18.10	Gray phyllite with foliation at 30° to core axis.				
18.10	19.82	Black basalt dyke.				
19.82		End of hole.				

 (\cdot, \cdot)

DIAMOND DRILL HOLE RECORD

SHEET No. 1 OF 2 PROPERTY: RANDI DRILLED FROM: SURFACE LATITUDE: 0+24S

1. 3

CORE SIZE: NQ DEPARTURE: 1+75E LENGTH: 30.49 M (100 FT) BEARING: 223°DIP: -45°

HOLE No.: R-00-03 START: 19 SEPTEMBER 2000 FINISH: 20 SEPTEMBER 2000 ELEVATION: 1893 METRES

1 1

METRIC IN FROM	TERVAL TO	DESCRIPTION	FROM	то	Au ppb	Ag ppm
0.0	4.27	Overburden; no core.				
4.27	4.57	Assorted broken and bit-chewed pieces of core and rubble of gray phyllite, green phyllite and white quartz with weak limonite.	4.27	4.57	10	<0.2
4.57	9.05	 Approximately 50% each of light tan to greenish phyllite and darker phyllite which is gray to dark gray. Entire section has abundant calcite, predominantly as partings or cleavage coatings along foliation. 5.20 m 2 cm white quartz. 6.10 m. foliation at 40° to core axis. 6.40-6.60 m several quartz stringers with weak limonite, oriented at 70° to core axis. 8.40-8.55 m white quartz approximately parallel to foliation at 45° to core axis. 	4.57 5.40 6.33 7.62 8.40	5.40 6.33 7.62 8.40 9.05	ব্য ব্য ব্য ব্য	0.2 0.2 <0.2 <0.2 <0.2 <0.2
9.05	9.59	Silicified zone with 3% pyrrhotite and traces of chalcopyrite. Upper contact parallel to foliation at 50° to core axis. Silica occurs as white quartz, light, pinkish brown quartz in wisps and breccia(?) fragments, and as thin, cross-cutting quartz stringers. Pyrrhotite and chalcopyrite are most common within and adjacent to the quartz stringers. The host phyllite is mixed in the quartz and has abundant dark green chlorite and a cream coloured clay(?) or mica(?) mineral which are all finely foliated. The chloritic phyllite host is magnetic suggesting the presence of additional finely disseminated pyrrhotite. Lower contact of chloritic and siliceous zone at 9.59 m is approximately parallel to foliation of phyllite at 23° to core axis.	9.05	9.59	40	0.2
9.59	10.14	Light greenish gray phyllite which has calcite disseminations as alteration(?) product. Foliation at 25° to core axis.	9.59	10.14	<5	<0.2

SHEET	No.	2	ÓF	2
-------	-----	---	----	---

· . . .

HOLE No.: R-00-03

* N

METRIC IN FROM	NTERVAL TO	DESCRIPTION	FROM	то	Au ppb	Ag ppm
10.14	11.93	Black basalt dyke, upper intrusive contact at 70° , lower contact with serpentinite at 73° to core axis. Basalt is hard, homogenous, fine grained and unaltered.				
11.93	30.49	Serpentinite, generally light green with abundant white talc, abundant green serpentine, countless slickensides, 1-5% disseminated magnetite, non-carbonate, no quartz or visible sulphides.	11.93	13.20	<5	<0.2
30.49		End of hole.				

DIAMOND DRILL HOLE RECORD

· •

SHEET No. 1 OF 1 PROPERTY: RANDI DRILLED FROM: SURFACE LATITUDE: 0+24S

 $\langle \cdot \rangle_{Y}$

CORE SIZE: NQ DEPARTURE: 1+75E LENGTH: 25.91 M (85 FT) BEARING: 223°DIP: -70° HOLE No.: R-00-04 START: 20 SEPTEMBER 2000 FINISH: 21 SEPTEMBER 2000 ELEVATION: 1893 METRES

 $\ell = \chi$

METRIC IN FROM	TERVAL TO	DESCRIPTION	FROM	ТО	Au ppb	Ag ppm
0.0	4.00	Overburden; no core.				
4.00	4.57	Greenish gray phyllite with moderate calcite, foliation at 35° foliation.				
4.57	6.10	Gray to black, strongly foliated phyllite, foliation at 35° to core axis.				
6.10	8.25	Light green to locally white, strong talcose altered phyllite, probably related to strong shearing. The margins of the zone show foliation similar to phyllite at 35-40° to core axis.	6.10	8.25	<5	<0.2
8.25	13.72	Gray phyllite, moderate calcite. 8.75 m foliation at 30° to core axis. 11.97 m 7 cm white quartz at 75° to core axis. 12.05 m 7 cm quartz at 75° to core axis. 12.50 m 5 cm basalt sill parallel to foliation at 35° to core axis.				
13.72	13.90	Basalt sill at 35° to core axis.				
13.90	14.12	Barren white quartz with graphite on lower contact at 45° to core axis.	13.90	14.80	ব	<0.2
14.12	14.80	Light greenish gray to black phyllite with minor barren quartz. Foliation of phyllite at 35° to 40°. Lower contact with basalt oriented at 50° to core axis.				
14.80	15.65	Dark gray basalt(?) dyke, lower intrusive contact with phyllite at 60°				
15.65	16.05	Dark gray, contorted phyllite, moderate calcite, no sulphides.	15.65	16.05	15	<0.2
16.05	16.77	Dark gray basalt(?) dyke similar to above, upper contact at 35° to core axis, lower contact with serpentinite shows clay gouge indicating faulting.				
16.77	25.91	Serpentinite, white to light green with abundant talc and numerous shears and slickensides.				
25.91		End of hole.			-	



ALS Chemex chemer Coris Inc

Analytical Chemists * Gernhemists * Registered Assayers 994 Glendale Ave , Unit 3, Sparks Nevada, U.S.A. 89431 PHONE: 775-356-5395 FAX: 775-355-0179

To: ARCTEX ENGINEERING SERVICES

304 - 595 HOWE ST. VANCOUVER, BC V6C 2T5

Comments: ATTN: ARCTEX ENG CC. PAUL KALLOCK

A0029418

CERTIFICATE

A0029418

CH

(FL.) · ARCTEX ENGINEERING SERVICES

Project P.O.# :

Samples submitted to our lab in Vancouver, BC. This report was printed on 22-sEP-2000.

	SAMPLE PREPARATION					
CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION				
255 295 3202 229	10 10 10 10	RUSH Geo ring to approx 150 mesh RUSH crush and split (0-3 Kg) Rock - save entire reject ICP - AQ Digestion charge				

The 32 element ICP package is suitable for trace metals in soil and rock samples. Elements for which the nitric-aqua regia digestion is possibly incomplete are: Al, Ba, Be, Ca, Cr. Ga, K. La, Mg, Na, Sr, Ti, 71, W.

		ANALYTICAL P	ROCEDURES		
CHEMEX CODE	NUMBER	DESCRIPTION	METHOD	DETECTION	UPPER LIMIT
991	10	Au ppb: Fuse 30 g sample	ዮአ-አአይ	5	10000
2118	10	Ag ppm: 32 element, soil & rock	ICP-AES	0.2	100 0
2119	10	Al %: 32 element, soil & rock	ICP-AES	0.01	15.00
2120	10	As ppm: 32 element, soil & rock	ICP-ARS	2	10000
557	10	B ppm: 32 element, rock & soil	ICP-AES	10	10000
2121	10	Ba ppm: 32 element, soil & rock	ICP-AES	10	10000
2122	10	Be ppm: 32 element, soil & rock	ICP-AES	Q.S	100.0
2123	10	Bi ppm: 32 element, soil & rock	ICP-AES	2	10000
2124	10	Ca %: 32 element, soil & rock	ICP-ARS	0.01	15.00
2125	10	Cd ppm: 32 element, soil & rock	ICP-ARS	0.5	500
1117	10	Co ppm: 32 element, soil & rock	ICP-ABS	1	10000
2120	10	Cr ppm: 32 element, soil & rock	ICP-AES	1	10000
2150	10	Cu ppm: 32 element, soil & rock	ICP-AES	1	10000
2120	10	Fe %1 32 alement, soil & rock	ICP-AES	0.01	15.00
2120		We ppm: 32 element, soil & rock	ICP-AES	10	10000
2122	10	ng ppm: 32 element, soil & rock	ICP-AES	1	10000
2151	10	N 41 J2 element, soll & rock	ICP-AES	0.01	10.00
2134	10	Ma St 22 January 4011 & rock	ICP-AES	10	10000
2135	10	Ny si 32 slement, soli & rock	ICP-AES	0.01	15.00
2136	10	Mo ppm: 32 element, soil & rock	ICP-AES	5	10000
2137	10	No 9: 32 element, soll & rock	ICP-ARS	1	10000
2138	10	Ni nemo 12 element, soll & rock	ICP-AES	0.01	10.00
2139	10	P ppm, 32 element, soll & rock	ICP-AES	1	10000
2140	10	Ph ppm: 32 element, soil & rock	ICP-ARS	10	10000
551	10	R h 12 element work (coll	ICP-ARB	2	10000
2141		Sh pope 32 element soit a	ICP-AES	0.01	5.00
2142	1 10	SC PPRI 32 element, soll & rock	ICP-ARS	2	10000
2143	10	ST DOD: 32 CLEMENCE, SOII & FOCK	ICP-ARS	1	10000
2144	1 10	T1 3: 32 alement soil i sol	ICP-ARS	1	10000
2145	1 10	The second secon	ICF-AKS	0.01	10.00
2146	1 10	U DODI 32 element soll &	107-868	10	10000
2147	1 10	V DDD1 32 element soil a	ICP-AES	10	10000
2148	10	W DDmi 32 element soil & rock	ICP-AES	1	10000
2149	ÎŌ	Zh DDm: 32 element, soil f sach	TCL-VER	10	10000
		- FF VE VICHENC, COIL & FOCK	TCL-VR2	2	10000

The results of this assay were based solely upon the content of the sample submitted. Any decision to invest should be made only after the potential investment value of the claim or deposit has been determined based on the results of assays of multiple samples of geologic materials collected by the prospective investor or by a qualified person selected by him/her and based on an evaluation of all engineering dats which is evaluable concerning any proposed project Statement required by Nevada State Law NRS 519





Sources of Seachemists * Registered Assayers

994 Glereda's Ave., Unit 3, Sparks Nevada, U.S.A. 89431 PHONE, 775-356-5395 FAX: 775-355-0179 To: ARCTEX ENGINEERING SERVICES

304 - 595 HOWE ST. VANCOUVER, BC V6C 2T5 Pade Number - 1 A Tota Pages - 11 Gestionte Late 21 - 2019 Involue 115 - 21009418 P.C. Nomber -Account FL

Project :

Comments: ATTN: ARCTEX ENG, CC: PAUL KALLOCK

CERTIFICATE OF ANALYSIS A0029418 PREP Au ppb λg 81 λs В Ba Ca Be Bi cđ Co Ċr Cu 70 Ga Hg K La Χg SAMPLE CODE RUSH **DDE** × рра ppm **PP** ррш ppm ۲ ppm DDB. **DDB** 4 D DR **ppn** pp<u>n</u> ٩. ppm * 1.00-2.51 255 295 10 0.2 0.91 62 < 10 90 < 0.5 < 2 3.64 < 0.5 2.51-3.05 13 201 15 2.28 255 295 < 10 < 1 0.18 < 10 1.41 < 5 < 0.2 3.43 12 < 10 50 < 0.5 < 2 1.75 < 0.5 34 190 93 6.28 b.05-4.35 255 295 10 < 1 0.31 10 2.32 < \$ 0.4 3.38 10 < 10 30 < 0.5 < 2 5.40 < 0.5 4.35-4.57 34 161 37 5.93 255 295 10 < 1 0.17 < 10 2.95 < \$ 0.2 2.14 34 < 10 1.92 < 0.5 < 10 < 0.5 < 2 24 557 2.37 26.75-26.84 < 1 < 10 255 295 < 1 0.03 < 10 < 5 3.48 1.0 2.33 < 2 < 10 80 < 0.5 < 2 10.35 < 0.5 35 157 66 4.01 < 10 < 1 0.13 < 10 1.75 49.70-50.70 255 295 10 < 0.2 2.69 240 < 2 < 10 0.5 < 2 2.35 < 0.5 19 135 49 5.60 \$0.70-52.27 < 10 < 1 0.71 255 295 < 5 10 2.32 0.2 1.10 < 2 < 10 110 < 0.5 6 5.52 < 0.5 11 81 54.68-54.88 80 2.44 < 10 0.46 255 295 < 1 < 5 < 0.2 < 10 0.94 0.49 < 2 < 10 30 < 0.5 < 2 7.29 < 0.5 3 54.00-55.16 67 19 1.24 < 10 0.07 255 295 < 1 < 10 0.34 < 5 0.2 0.83 < 2 < 10 50 < 0.5 < 2 3.99 < 0.5 255 295 7 86 55.16-55.60 129 3.35 < 10 0.16 < 5 < 1 < 10 0.46 0.4 1.41 6 < 10 100 < 0.5 < 2 8.60 < 0,5 13 126 38 2.91 < 10 < 1 0.41 10 1.05

CERTIFICATION



ALS Chemex Cheme 1 / te -

Analysium Commists * Geochemists * Registriert Aksayers

- 394 Giller Inte Ave., Unit.	Soarks
Nevada, U.S.A	89431
PHONE 775-356-5395	FAX: 775-355-0179

To ARCTEX ENGINEERING SERVICES

304 - 595 HOWE ST. VANCOUVER, BC V6C 2T5

Page Numt er 1 B. Total Page: 1 Certificate Date 22:SEP 2003 Invoice No 19029418 P.O. Number Account :FL

Project : Comments: ATTN: ARCTEX ENG. CC: PAUL KALLOCK

Sample		· ····	<u>.</u> .	,						CE	RTIF		OF	NAL	/SIS	ļ	0029418	<u></u>
	PREP CODE	Ho. ppa	No ррв	Na K	Ni ppm	P ppm	Pb ppm	S N	SD PPM	Sc ppm	Sr ppm	Ti X	Т1 ррв	U ppm	V ppma	W	Zn pps	
L.80-2,51 2.51-3.05 0.05-4.35 L.35-4.57 16.75-26.84	255 295 255 295 255 295 255 295 255 295 255 295	615 725 945 465 870	7 5 1 < 1 < 1	0.02 0.01 0.02 0.01 0.01	110 119 103 254 112	1900 1770 1740 660 2440	< 2 < 2 < 2 < 2 < 2	0.13 0.10 0.04 0.01 0.41	< 2 < 2 2 2 < 2	5 11 16 5 4	186 54 171 55 327	0.06 0.23 0.15 0.01 0.24	< 10 < 10 < 10 < 10 < 10 < 10	< 10 < 10 < 10 < 10 < 10 < 10	30 101 116 40 49	< 10 < 10 < 10 < 10 < 10 < 10	46 126 80 32 106	
19.70-50.70 50.70-52.27 54.60-54.88 54.80-55.16 5.16-55.60	255 295 255 295 255 295 255 295 255 295 255 295	1750 1685 1500 2970 2330	3 1 < 1 < 1 < 1	0.05 0.01 0.03 0.03 0.04	115 55 19 29 95	2430 820 800 920 1390	< 2 8 8 2 4	0.31 0.34 0.18 1.00 0.40	2 2 < 2 < 2 < 2 < 2	6 3 2 3 5	178 298 685 280 640	0.19 0.10 0.06 0.03 0.11	< 10 < 10 < 10 < 10 < 10 < 10	< 10 < 10 < 10 < 10 < 10 < 10	83 39 16 22 41	<pre>< 10 < 10</pre>	80 48 14 34 40	
								· · · · · · · · · · · · · · · · · · ·						-				

CERTIFICATION



ALS Chemex chemeralabs Inc.

Analytical Chemists * Geochi censis * Registered Assayers 504 - Jondalio Ave., Unit 3. Sparks Nevada, U.S.A. 89431 PHONE: 775-356-5395 FAX: 775-355-0179

То ARCTEX ENGINEERING SERVICES

> 304 - 595 HOWE ST. VANCOUVER, BC V6C 2T5

Page Number 1-A Total Page 1 Centre de Liste 💥 🖓 P. 2001 Invoice No. 10029609 P.O. Northern Account FL

Project :

Comments: ATTN ARCTEX ENG. CC: PAUL KALLOCK

CERTIFICATE OF ANALYSIS A0029609 PREP Au ppb λ1 ٨g λe 8 Ba Be Bi. Ca Cđ Co Cr Cu 74 Ga Hσ x La Нq SAMPLE CODE RUSH DDB ٩, ppm ppm ppm **PP** ppm ٩. ppm **ppm** x pp∎ DDR DDB. ١, ۲ **DDE** DOB 01 35.95-37.35 255 295 15 0.2 1.59 84 < 10 100 < 0.5 < 2 1.48 < 0.5 20 85 73 3.56 < 10 0.25 10 < 1 1.12 01 37.35-30.70 255 295 < 5 < 0.2 0.63 < 2 < 10 60 < 0.S < 2 1.26 < 0.5 8 67 41 1.78 < 10 < 1 0.13 < 10 0.43 01 30.70-40.00 255 295 5 < 0.2 0.52 < 2 < 10 70 < 0.5 < 2 3.01 < 0.5 7 54 49 1.57 < 10 < 1 0.14 10 0.40 02 2.70-3.55 255 295 < 5 0.2 3.16 20 < 10 30 < 0.5 < 2 5.65 0.5 29 112 31 5.99 < 10 < 1 0.17 < 10 2.26 02 3.55-4.57 255 295 < 5 0.2 3.03 10 < 10 30 < 0.5 < 2 3.30 < 0.5 26 133 59 5.45 0.18 < 10 < 1 < 10 2.40 02 6.30-6.40 255 295 e 5 0.6 3.35 22 < 10 20 < 0.5 7.85 < 2 1.0 30 233 < 1 6.01 < 10 < 1 0.13 03 4.27-4.57 < 10 2.94 255 295 10 < 0.2 1.48 40 < 10 30 < 0.5 < 2 1.73 < 0.5 12 103 15 2.58 < 10 < 1 0.06 03 4.57-5.40 < 10 1.29 255 295 1 5 0.2 2.88 24 < 10 40 0.5 < 2 3.13 < 0.5 26 153 91 5.43 < 10 < 1 0.25 10 2.02

CERTIFICATION:

• 4





Analytical Chemists * Geochemists * Repotenelt Assayers

194 Glendale Ave Unit 3 Sparks Necotin, U.S.A. 89431 PHONE: 775-356-5395 FAX: 775-355-0179 To: ARCTEX ENGINEERING SERVICES

304 - 595 HOWE ST VANCOUVER, BC V6C 2T5

Family index 1.12 T the case Center net statum SEP 2000 Incare 10 110029-59 P.O. Busher Account :FL

Project :

Comments: ATTN: ARCTEX ENG CC. PAUL KALLOCK

CERTIFICATE OF ANALYSIS A0029609 PREP Mп Ho Na Ni РЪ P S SÞ Sc Sr Ťİ. Tl U ٧ W SAMPLE Zŋ CODE **pp**m × DDB ppa. ¥, рра ppa ppm **DD** * **DD DD pp DD pp DD** 01 35.95-37.35 255 295 445 6 0.01 64 1280 2 0.60 < 2 4 73 01 37.35-38.70 0.09 < 10 < 10 255 295 39 < 10 104 255 7 < 0.01 43 450 2 0.61 2 1 52 01 39.70-40.00 0.05 < 10 < 10 < 10 255 295 14 56 450 4 0.01 26 800 6 0.77 2 02 2.70-3.55 1 102 0.03 < 10 < 10 255 295 8 < 10 48 1045 0.02 < 1 91 1520 < 2 0.03 < 2 9 255 02 3.55-4.57 0.12 < 10 < 10 86 < 10 255 295 94 820 0.02 < 1 72 980 < 2 0.06 < 2 10 106 0.18 < 10 < 10 85 < 10 94 02 6.30-6.40 255 295 1325 0.01 < 1 118 1280 2 0.02 < 2 10 03 4.27-4.57 455 0.02 < 10 < 10 85 255 295 < 10 118 680 < 1 0.04 29 1460 2 0.01 < 2 6 03 4.57-5.40 92 0.12 < 10 255 295 < 10 58 < 10 40 840 < 1 0.01 89 1480 2 0.04 < 2 10 104 0.24 < 10 < 10 91 < 10 102

CERTIFICATION _'



ALS Chemex Chemar 1 1

Ann's 111 Chemists * Gerschemists * Recestered Assayors 994 - Indate Ave , Unit 3, Sparks Here to the t 421

PHONE 775 356-5395 FAX: 775-355-0179

ARCTEX ENGINEERING SERVICES

304 - 595 HOWE ST VANCOUVER, BC V6C 2T5

Page familier of A. Total Pages of t Certificate 1 ate 23.55 P.2000 Income No. 100 19770 P.O. Number Account FL

Project : RANDI Comments: ATTN. ARCTEX ENG. CC: PAUL KALLOCK

	·	.								CERTIFICATE OF ANALYSIS A0029										
Simple	PREP CODE	λυ ppb Γλ+λλ	Ag ppm	лі *	λs ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cđ ppm	Co ppm	Cr ppm	Cu ppm	ř + X	Ga pps	Ng ppm	ĸ	La ppm	Hg X
04 6.10-8.25 04 13.90-14.80 04 15.65-16.05 0.801 5.7-6.5 N.NDI 13.3-14.4	205 226 205 226 205 226 205 226 205 226 205 226	<pre>< 5 < 5 15 55 5240</pre>	< 0.2 < 0.2 < 0.2 < 0.2 < 0.2 2.2	2.58 2.34 3.97 2.42 1.52	96 2 4 242 3600	<pre>< 10 < 10</pre>	10 50 110 80 80	< 0.5 < 0.5 < 0.5 0.5 0.5	< 2 < 2 < 2 < 2 < 2 < 2 < 2	1.43 4.93 5.09 0.68 0.51	< 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5	31 20 29 35 39	505 134 122 106 77	15 24 41 55 36	2.63 3.73 5.91 6.44 6.84	<pre>< 10 < 10 < 10 < 10 < 10 < 10 < 10</pre>	< 1 < 1 < 1 < 1 < 1 < 1	0.04 0.18 0.51 0.23 0.23	<pre>< 10 < 10 < 10 < 10 < 10 < 10 < 10</pre>	3.01 1.67 2.29 1.14 0.90
PANDI 14.4-15.7	205 226	530	0.6	1.75	1840	< 10	60	1.0	₹ 2	0.66	< 0.5	53	123	55	7.32	< 10	« 1	0.27	< 10	1.39

CERTIFICATION.



ALS Chemex

Analytical Chemicity * Geochemists * Registered Assayers

 994
 Glendale Ave., Unit 3,
 Sparks

 Nevada, 9.0 A
 85:131

 PHONE: 775:356-5395
 FAX
 775:355:0179

49: ARCTEX ENGINEERING SERVICES

304 595 HOWE ST VANCOUVER, BC V6C 2T5 Pade Number 3 P. Total Pages 1 Certificate Data: 26 SEP-2000 Involution 105 10929770 Fr Churcher Account Ps

Project : RANDI Comments: ATTN: ARCTEX ENG. CC: PAUL KALLOCK

CERTIFICATION

nu

															·······			*
······	<u> </u>	1				-				CE	RTIFI	CATE	OFA	NALY	/SIS	4	0029770	
SANPLE	PREP CODE	Min ppm	Но ррв	Na %	Ni ppm	P PPm	РЪ ррм	S %	SD ppm	Sc ppm	Sr ppm	Tİ X	Ť1 ppm	U DDa	V ppm	и рря	Zn ppm	
04 6.10-8.25 04 13.90-14.00 04 15.65-16.05 RANDI 5.7-6.5 RANDI 13.3-14.4	205 220 205 220 205 220 205 220 205 220 205 220	5 510 5 795 5 865 905 5 1140	2 2 3 3 1	0.01 0.04 0.14 0.01 0.01	317 65 99 125 102	880 1060 1400 2370 1690	< 2 . < 2 2 2 6	0.01 0.06 0.09 0.01 0.02	< 2 < 2 < 2 < 2 < 2 6	4 10 16 6 12	48 275 182 19 22	0.10 0.17 0.23 0.01 0.01	< 10 < 10 < 10 < 10 < 10	< 10 < 10 < 10 < 10 < 10 < 10	38 79 137 42 45	< 10 < 10 < 10 < 10 < 10 < 10	42 62 100 120 94	
RANDI 14.4-15.7	205 326	5 1145	3	0.01	217	1260	2	0.03	8	17	30 c	0.01	< 10	< 10	57	< 10	80	
												•	·				1-0-1-0-	



ALS Chemex the constants had

An Wheel Chemists * Geochemists * Registered Assayers 994 Glendale Ave., Unit 3, Sphrite 89431

Nevada, U.S.A. 89431 PHONE: 775-356-5395 FAX: 775-355-0179

ARCTEX ENGINEERING SERVICES

304 - 595 HOWE ST, VANCOUVER, BC V6C 2T5

Phge Nuesce 1-A Total Pages 11 Derbleat - Date Dis 11 P.C. tavano teo 16.329772 P.D. Mumber Fi Account

Project : RANDI Comments: ATTN: ARCTEX ENG. CC: PAUL KALLOCK

	r				•					CI	ERTIF	FICATE OF ANALYSIS					40029	772		
SAKPLE	PREP CODE	λu ppb Ρλ+λλ	λg ppm	л1 *	λs ppm	B	Ba pp n	Be ppm	Bi ppm	Ca %	са ррв	Co ppm	Cr ppm	Cu ppm	70 X	Ga ррш	Hg ppm	K N	La ppm	Mg
x00-01 4.57-6.10 x00-01 6.10-6.80 x00-01 6.80-8.02 x00-01 5.40-6.33 x00-03 6.33-7.62	205 22 205 22 205 22 205 22 205 22 205 22 205 22	6	0.2 0.2 0.2 0.2 4 0.2	3.75 3.38 3.53 3.29 2.37	6 < 2 2 < 2 28	< 10 < 10 < 10 < 10 < 10 < 10	90 180 70 30 20	< 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5	< 2 4 4 < 2 < 2	3.98 5.13 4.98 5.09 4.96	< 0.5 0.5 < 0.5 < 0.5 < 0.5	33 34 29 29 25	331 203 195 130 108	24 57 57 44 39	5.34 5.93 5.12 5.21 4.61	10 10 10 10 < 10	1 1 < 1 < 1 < 1 < 1	0.77 1.44 0.69 0.19 0.14	< 10 < 10 < 10 < 10 < 10 < 10	3,13 1,99 2,83 2,31 1,84
R00-03 7.62-8.40 R00-03 8.40-9.05 R00-03 9.05-9.59 03 9.59-10.14 03 11.93-13.20	205 22 205 22 205 22 205 22 205 22 205 22	6 < 5 6 < 5 6 40 6 < 5 6 < 5	< 0.2 < 0.2 0.2 < 0.2 < 0.2 < 0.2	3.49 3.02 0.71 4.31 0.24	40 10 24 2 8	< 10 < 10 < 10 < 10 < 10 < 10	40 70 50 50 < 10	< 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5	< 2 < 2 6 < 2 < 2 < 2	3.64 3.44 5.74 3.97 0.63	< 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5	32 28 18 30 50	106 102 29 151 793	52 56 518 14 4	6.83 5.74 8.43 6.57 2.79	10 10 < 10 10 < 10	< 1 < 1 1 < 1 < 1 < 1	0.20 0.42 0.23 0.21 < 0.01	<pre>< 10 < 10 < 10 < 10 < 10 < 10</pre>	1.96 1.70 0.68 3.34 11.00
AANDI 15.7-16.7 AANDI 16.7-18.4 AANDI 20.4-21.2 AANDI 21.2-23.0	205 22 205 22 205 22 205 22	6, 3890 6 745 6 295 5 3100	5,6 0.8 0.8 3.0	0.74 1.78 0.09 1.04	7860 906 384 5750	< 10 < 10 < 10 < 10 < 10	140 90 10 80	0.5 0.5 < 0.5 0.5	< 2 < 2 < 2 < 2	0.62 0.74 0.05 1.43	< 0.5 < 0.5 < 0.5 < 0.5	44 30 8 43	67 64 87 62	31 45 24 60	6.64 5.78 0.77 7.08	< 10 < 10 < 10 < 10	< 1 < 1 < 1 < 1	0.24 0.24 0.04 0.19	10 10 < 10 < 10	0.31 0.79 0.04 0.69
																\cap	1	,		

CERTIFICATION*



ALS Chemex

Analytics: Chemists * Geochemists * Registered Assayers

 994
 Glendale Ave., Unit 3, Nevadh, U.S. 4
 Sparks

 Nevadh, U.S. 4
 89431

 PHONE: 775/356-5395
 FAX: 775-355-0179

ARCTEX ENGINEERING SERVICES

304 - 595 HOWE ST. VANCOUVER, BC V6C 2T5 Page Number 1-8 Total Pages 1 Cartificate Ords 29 SEP-29 5 Invoice No 10029772 F D Number Account FL

Project : RANDI Comments: ATTN: ARCTEX ENG. CC: PAUL KALLOCK

<u> </u>	i									CERTIFICATE OF ANALYSIS					SIS	ļ	40029772	
SAMPLE	PREP CODE	Min ppm	Но ррп	Ra K	Ni ppm	P ppm	Pb ppm	9 %	Sb ppm	Sc ppm	Sr ppm	Tİ X	T1 pp=	рры	V ppm	W ppm	2n ppm	
00-01 4.57-6.10 R00-01 6.10-6.80 R00-01 6.80-8.02 R00-03 5.40-6.33 R00-03 6.33-7.62	205 226 205 226 205 226 205 226 205 226 205 226	980 1170 865 875 1125	2 1 3 1 2	0.01 0.02 0.01 0.01 0.01	203 101 86 89 77	1830 2180 830 1250 850	<pre>< 2 < </pre> < 2 < < 2 < < 2 < < 2 <	x 0.01 x 0.01 x 0.01 x 0.01 x 0.01 0.04	< 2 < 2 < 2 < 2 < 2 < 2 < 2 < 2 < 2	16 20 20 10 8	140 224 177 149 151	0.20 0.23 0.21 0.14 0.01	< 10 < 10 < 10 < 10 < 10 < 10	< 10 < 10 < 10 < 10 < 10 < 10 < 10	121 133 147 84 60	< 10 < 10 < 10 < 10 < 10 < 10	92 104 60 82 70	
R00-03 7.62-8.40 R00-03 8.40-9.05 R00-03 9.05-9.59 03 9.59-10.14 03 11.93-13.20	205 226 205 226 205 226 205 226 205 226 205 226	885 945 9540 2820 755	2 2 < 1 3 < 1	0.02 0.01 0.01 0.02 0.01	95 70 90 106 819	2040 1550 1170 1140 50	< 2 < 2 < 2 < 2 < 2 < 2 < 2	0.05 0.25 2.28 0.01 0.03	2 < 2 < 2 < 2 < 2 < 2	11 9 3 13 5	115 106 191 < 107 22 <	0.11 0.17 0.01 0.20 0.01	< 10 < 10 < 10 < 10 < 10 < 10	< 10 < 10 < 10 < 10 < 10 < 10	96 79 244 190 18	< 10 < 10 < 10 < 10 < 10 < 10	108 96 86 98 8	
RAHDI 15.7-16.7 RAHDI 16.7-18.4 RAHDI 20.4-21.2 RAHDI 21.2-23.0	205 226 205 226 205 226	1015 850 310 1335	1 2 4 1 4	0.01 0.01 (0.01 0.01	104 80 15 89	1970 2860 150 1320	10 2 5	0.03 0.03 0.01 0.22	10 2 2 10	12 7 < 1 14	37 « 32 « 3 « 55 «	0.01 0.01 0.01 0.01	< 10 < 10 < 10 < 10	< 10 < 10 < 10 < 10	21 46 4 38	< 10 < 10 < 10 < 10	76 126 12 98	
		••••••••••••••••••••••••••••••••••••••				. <u>., .</u>										(10	

CERTIFICATION _