

85-37

GOLD OPTION

2/84

Okanagan Falls, B.C.

82-E-6

Geology, Geochemistry, Magnetic and  
VLF Surveys and Drilling - 1984

R. M. Cann

January 1985

<u>Claims</u>	<u>Units</u>	<u>Record No.</u>
Gold	12	652
Golden 1	12	1561
Golden 2	20	1562

NTS: 82-E-6

Latitude: 49° 17'N

Longtitude: 119° 19'W

Owner: Gold - P. P. Nielsen  
Golden 1 & 2 - K. L. Daughtry

Operator: Rio Algom Exploration Inc.  
520-800 West Pender Street  
Vancouver, B.C.  
V6C 2V6

Osoyoos Mining Division

**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

13,477

GOLD OPTION  
Okanagan Falls, B.C.  
82-E-6  
Geology, Geochemistry, Magnetic and  
VLF Surveys and Drilling - 1984

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## SUMMARY

The Gold epithermal precious metal property, located in south-central British Columbia 20 kilometres east of Okanagan Falls, were held under option by Rio Algom Exploration Inc. from the E & D Joint Venture.

Geological mapping, rock sampling, soil geochemistry, and magnetic and VLF surveys conducted in August indicated two structurally controlled, mineralized zones, referred to as the Road and Meadow Zones, within Eocene subaerial andesitic flows and breccias. These zones were tested in October by three diamond drill holes.

The Meadow Zone is a northwest trending silicified, pyritic structure which was identified by a broad arsenic in soil anomaly, magnetic and VLF anomalies and anomalous arsenic and gold values in outcrop. The structure was tested by two diamond drill holes totalling 308.5m.

Where intersected, the fault-bounded mineralized zone averaged 8 metres true width. Gold values varied from 6 to 135ppb, silver was less than 0.3ppm and arsenic varied between 100 to 600ppm. Higher gold values up to 295 ppb are associated with narrow quartz veins or brecciated silicified zones.

The Road Zone is an east-west trending, pyritic, silicified

zone commonly containing massive quartz-carbonate veins up to 1.5 metres wide. Gold values in roadcuts are up 1.51 g/t over 10.0 metres. Mineralization is not well defined by soil geochemistry, possibly because of variable till cover, however the zone is coincident with a broad magnetic low. DDH-1 was drilled beneath this zone but no correlations could be made between outcrop and drill core. Highest value of 225ppb gold over 0.7 metres is associated with a brecciated silicified structure.

Two additional drill holes are recommended to test the Road Zone. No work is recommended on the Meadow Zone as there is no indication the low gold and silver values increase with depth or along strike.

GOLD OPTION  
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1. INTRODUCTION

1.1 GENERAL

This report summarizes and discusses the results of soil geochemical sampling, magnetic and VLF-EM surveys, geological mapping and diamond drilling conducted on three claims held under option by Rio Algoma Exploration from the E & D Joint Venture. An earlier report by C. D. Spence on Soil Geochemistry, dated August 1984, has been incorporated into this report.

The property located in south-central B.C. was originally staked to cover gold-silver mineralization exposed in a roadcut. Samples taken by Rio in May 1984 returned values up to 8.79 g/t Ag and 1.71 g/t Au over 9.5m and suggested an epithermal gold potential for the area.

Limited additional drilling is recommended on the property.

### 1.2 LOCATION, ACCESS AND TOPOGRAPHY

The property is on NTS Map 82 E 6 W and is centered on  $49^{\circ} 17.1'N$  and  $119^{\circ} 2'W$ . It lies east of Venner Meadows, twenty kilometres from Okanagan Falls on the Weyerhaeuser Canada Ltd. Shuttleworth Creek logging road. The location of the claims is shown on map L-6782 in this report.

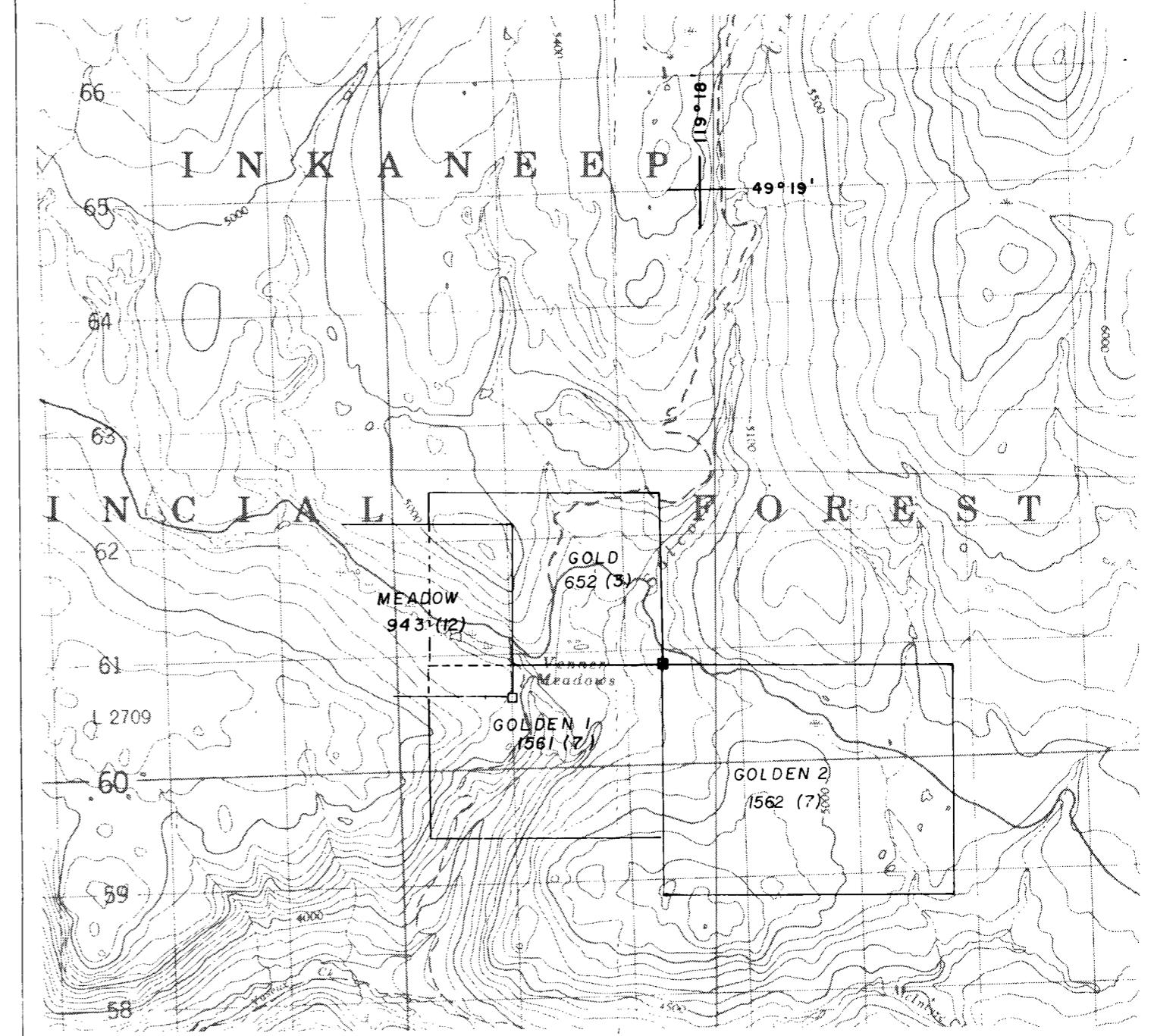
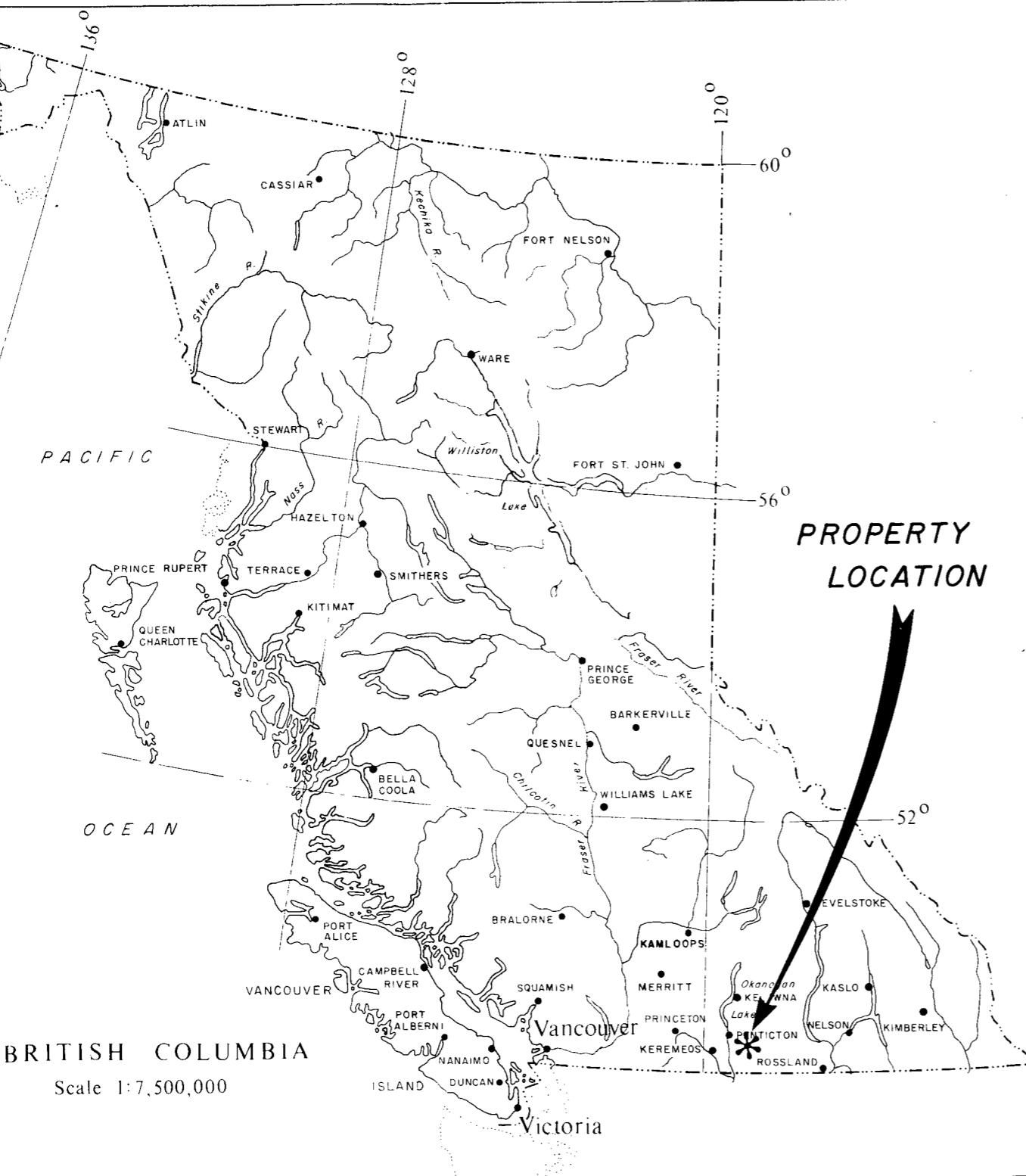
The logging road is suitable for all vehicles and traverses the property from its western to its eastern edge. The main area of current interest is at approximately 26.5km on this road.

The property lies on the Okanagan plateau with gently rolling topography. It is at 4500-4900 ft. elevation with much of the property in a low depression. Solco Creek trends across the western claims and flanks a large area of outwash gravels to the west.

The area is covered mostly by second growth forest with much windfall.

### 1.3 PROPERTY

The optioned property consists of three claims as follows and shown on the map L-6782.



**Rio Algom Exploration Inc.**

**GOLD OPTION**

**LOCATION MAP**

N.T.S. 82-E-6

SCALE 1:50,000

1000 500 0 1000 2000 3000 4000 Metres

DATE  
Aug. 1984

DRAWN BY  
CDS / Exclsv

DWG.  
FIG. I

<u>CLAIM</u>	<u>UNITS</u>	<u>RECORD</u>	<u>OWNER</u>	<u>RECORDED</u>	<u>EXPIRY DATE</u>
Gold	12	652	P.P. Nielson	1 Mar/79	1985
Golden 1	12	1561	K.L. Daughtry	15 Jul/82	1985
Golden 2	20	1562	K.L. Daughtry	15 Jul/82	1985

All in the Osoyoos Mining Division.

Field checks show that claims are as shown on this map and not as depicted on claim map issued by the B.C. Ministry of Energy, Mines and Petroleum Resources.

The E & D Joint Venture is formed of K. L. Daughtry and Associates and Energex Minerals Ltd.

#### 1.4 HISTORY

Gold-silver mineralization was first exposed in a road-cut in 1973 and staked as the Au - Rain claims. Some trenching was done. Later that year Teck Corp. performed limited geophysical surveys and sampling and found some anomalous gold. Later work lead to the conclusion that the mineralization was very limited.

In 1975 after the owners carried out some trenching, Granby Mining Corp. sampled trenches and outcrops but concluded that mineralization was erratic. After this and minor work by the holders, the claims lay dormant and lapsed in 1978.

P. P. Nielson staked the Gold claim in 1979 for the

present owners and the Golden 1 and 2 claims were added in 1982.

The E & D joint venture carried out an orientation geochemical survey collecting 39 samples on claim lines in 1980 (Daughtry et al, 1981) and, in 1982, after adding to the property carried out an orientation magnetic survey over 2.1km of flagged line and along the road over the area of geochemically anomalous soils and known showings (Daughtry, 1982). To follow up on this orientation work a fuller survey of 5km of line was done by Nielson Geophysics in 1983 (Nielsen, 1983). Later this same grid was covered by soil sampling at 25m intervals (171 samples). Anomalies were found in arsenic, silver and gold, generally corresponding to an area of low magnetic response.

Lacana Mining Corporation for the Canadian Minerals Joint Venture acquired claims to the north-east of the showing in 1980 and have worked these and others added to the west and east. Lacana have drilled 20 holes totalling 2152m on the Venner 1 claim and some of these are about 25m from the Gold Claim.

Rio Algom, following examination of the prospect on the Gold Claim, negotiated an option to acquire an interest in the E & D Joint Venture holding. The agreement is dated

6 July 1984. Work by Rio Algoma commenced immediately on conclusion of this agreement.

## 2. 1984 FIELD PROGRAMME

### 2.1 GENERAL

Field work in 1984 was aimed at delineating the extent and grade of gold-silver mineralization exposed in a road-cut, and at locating other potential targets. Programmes were conducted between July 6 and August 3 and October 3 to 12 by a crew of 2-3 people under the supervision of R. M. Cann. Geophysical surveys were supervised by D. Sexsmith of Rio Algom Exploration Inc.

### 2.2 SOIL SAMPLING

Soil sampling was conducted over 22.9km of flagged lines by a crew of three contracted from Van Alphen Exploration Services of Smithers, B.C. Work was conducted between July 6 and 13th.

Eight hundred and eighty-eight samples were collected at 25m intervals along flagged lines spaced 50m apart in the central area and 100m apart further to the north and south. "B" horizon samples were collected at depths of 10-30cm, placed in Kraft sample bags and shipped to Acme Analytical Laboratories for analysis of Au (AA) and Cu, Pb, Ag, As, Sb (ICP). Subsequent to this work 23 additional samples were collected by Rio personnel to close off anomalies. These samples were

analyzed for 30 elements by ICP and for Au by AA.

Results are tabulated in Appendix B and plotted on DWG's GC8031 to 8033V.

### 2.3 GEOPHYSICS

A total field magnetic survey was conducted along 1984 soil grid lines between July 23 and 30th. Readings were taken at 25m intervals using an EDA PPM-350 magnetometer together with an EDA PPM-400 base station recorder. Data is shown on DWG. GP8036.

The PPM-350 features electronic data entry and storage while the PPM-400 features automatic data recording at a preset time interval. Data from the base station and field unit were dumped daily into an HP-85 microcomputer which, using software supplied by EDA, automatically corrected field data for diurnal drift and produced profile plots.

Concurrently with the magnetic survey VLF-EM survey was conducted using a Geonics EM-16 unit. Only results from the Cutler transmitter are considered useful and are plotted as profiles in DWG. GP-8044 and as contoured, Fraser-filtered data in DWG. GP-8035.

### 2.4 GEOLOGICAL MAPPING

The property was mapped between July 16 and 22 at 1:2000 scale primarily using the soil grid for control.

B. C. Government air photographs at 1 inch = 1/4 mile scale were used for mapping outside the grid.

Twenty-three rock chip samples were routinely taken during mapping from outcrops which appeared altered. Sixty-three 1.5m chip samples were also taken for assay from mineralized road cuts. (Appendix C).

## 2.5 DIAMOND DRILLING

Three NQ holes totalling 456.6m were drilled between October 4 and 9 to test mineralization exposed in a roadcut (Road Zone) and to test a silicified zone outcropping southwest of the road (Meadow Zone). Drill sites are plotted on DWG. G-8034 and drill logs are given in Appendix E. Drilling was performed by Beaupre Diamond - Drilling Ltd. of Princeton, B.C. using a Longyear 38 drill working on two 10 hour shifts. Access roads to drill sites were built in 5 hours by Beaupre using a John Deere 550 tractor charged at \$55 per hour. Drilling charges (excluding road construction) were \$59.06 per metre.

Two metre sections of core were split routinely at 8 metre intervals and half the core was shipped to Acme Analytical Laboratories for geochemical Au (FA/AA) Cu, Pb, Zn, Ag, and As (ICP) analysis. Samples from DDH's 2 and 3

were also analysed for 30 elements by ICP (results - Appendix D). Core was split in 1m intervals in sections where quartz or carbonate veining, sulphides, brecciation or pervasive silicification were apparent.

Core recovery was excellent, averaging 97.5%.

### 3. SOIL GEOCHEMISTRY RESULTS

#### 3.1 GENERAL

Soil sampling results are plotted on DWG.'s GC-8031V to GC -8033V. Threshold levels have previously been determined statistically for As, Cu and Pb as follows:

As - 110ppm

Cu - 18ppm

Pb - 11ppm

Threshold levels for Ag, Au and Sb could not be determined statistically but have been determined by inspection as:

Ag - 0.2ppm

Au - 15ppb

Sb - 3ppm

#### 3.2 RESULTS

Distinct anomalies can be seen for arsenic and copper and vaguely for lead and silver. Gold, ranging from 5-480ppb, shows no pattern but high values are scattered over the central part of the grid and show some correlation with silver and arsenic. Antimony is low over the entire grid except for several scattered elevated values. In general, silver shows no strong patterns, except for a concentration of elevated values near known mineralization on the road and along Solco Ck., the western end of lines 200 and 250S.

Arsenic forms two small anomalies immediately downslope of known mineralization and a strong anomaly further to the southwest. Anomalous copper values form two distinct areas, however, these areas are associated with drainages and probably reflect organic soils. High lead values form no meaningful pattern.

Results described clearly reflect a combination of mineralization in bedrock and the variable thickness of glacial till (or outwash gravels) blanketing the property. Eastward to east-southeastward glacial movement does not appear to affect the distribution of anomalies. With the exception of the small anomaly on L 1+50N, arsenic anomalies are closely related to areas of outcrop containing elevated arsenic values. The downslope position of the anomalies suggest a hydromorphic origin.

Numerous smaller silver and gold anomalies show a close spatial relationship with mineralized outcrops but were not successful in locating new zones or defining and extending those already known.

#### 4. GEOPHYSICAL RESULTS

##### 4.1 GENERAL

A magnetic survey was conducted as it appeared likely that mineralization exposed in outcrop could be traced using associated magnetic-lows. Daughtry (1982) suggested that a magnetic low coincided with an arsenic anomaly in soils. The VLF-EM survey was aimed at locating structures which probably controlled mineralization. These techniques were of limited use.

##### 4.2 MAGNETIC RESULTS

Total field results are plotted and contoured on DWG. GP-8036. Although a broad 50m wide east-west trending magnetic low is associated with mineralization at the road, it is clear from contour patterns that narrow subtle effects which could be correlated with mineralization have been masked by: (1) magnetic variations caused by overburden effects; (2) too broad a spacing for reading; and (3) lack of traverses perpendicular to the trend of zones. Despite these limitations a few generalizations can be made.

The general magnetic trend is northwesterly which parallels the probably trend of volcanic rocks in this area. Magnetic response is flat in the southwest corner of the

survey area and probably reflects an area underlain by felsic volcanics as intersected at the bottom of DDH-3. Choppier magnetic response northeast of this area presumably reflects underlying andesitic rocks. Most magnetic highs are located over outcroppings of weakly altered andesitic rocks. An exception is the high centred on L 1+00N; 1+25W which has no outcrop associated with it. Cause of a strong east-north-east-trending low cutting through L 3+00N; 3+50W is not known.

#### 4.3 VLF-EM RESULTS

Electromagnetic results (DWG.'s GP-8035 and GP-8044) show a series of northwest and northeast trending conductors. The strongest northwest trending conductor passes through L 0N, 2+25W; disappears for 200m and continues south again from L 3+00s, 0+80E. DDH's 2 and 3 were drilled beneath this anomaly and intersected several strong faults. Presumably faulting is also responsible for other northwest and north-east trending conductors. North-south traverses were not conducted to determine if mineralization in the Road Zone would cause an anomaly.

## 5. DIAMOND DRILLING

### 5.1 GENERAL

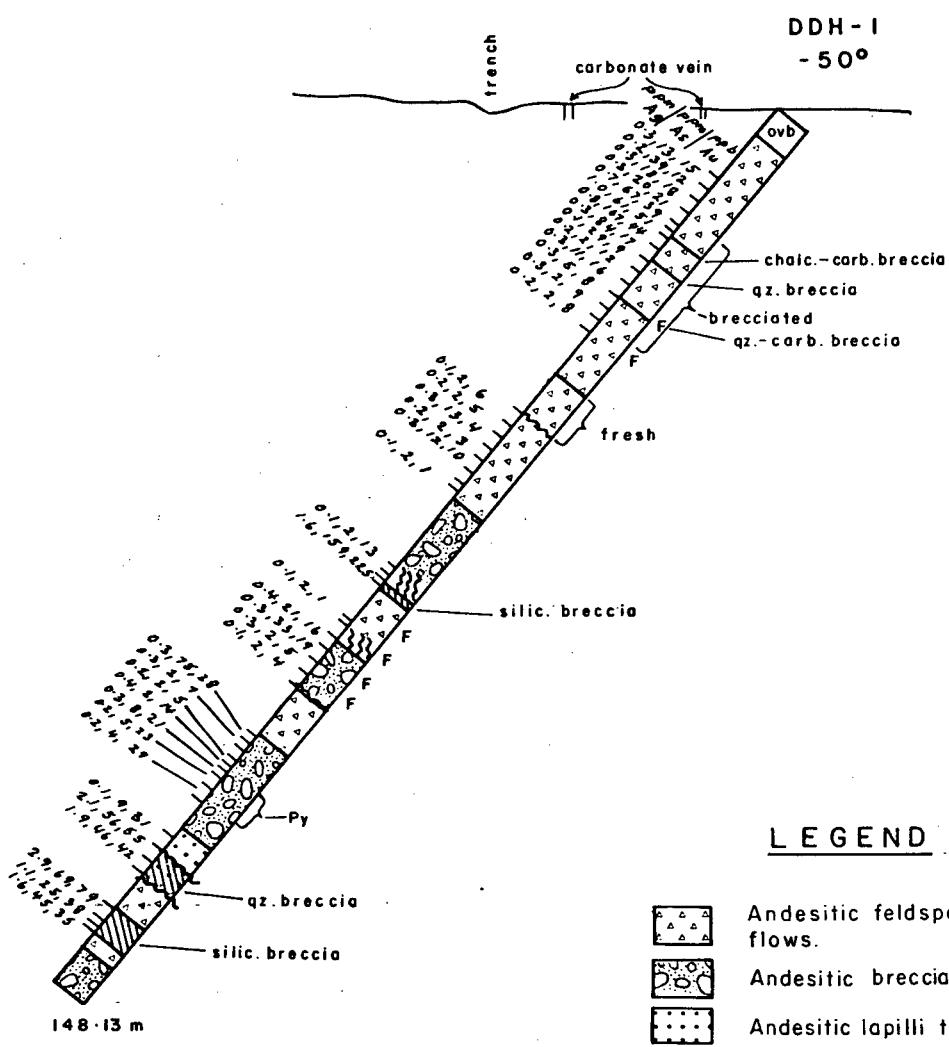
Two diamond drill holes tested a strong arsenic-gold in rock and soil anomaly to the southwest (Meadow Zone) and a third drill hole was expected, but failed to test width and grade mineralization in the Road Zone (DWG. G-8034). Drill hole data is summarized below.

DDH	LENGTH (m)	ANGLE	AZIMUTH	GRID COORDINATES	
				NORTH	WEST
1	148.13	-50°	0°	2+41	0+75
2	154.23	-50°	235°	1+62	2+56
3	154.23	-50°	235°	0+42	1+91

### 5.2 RESULTS

Schematic drill sections and analytical results for silver, arsenic and gold are shown in Figures 2, 3 and 4. Full drill logs and analytical results are located in Appendices E and D respectively.

The upper half of DDH-1 is dominantly andesitic feldspar porphyry flows while the lower half is mainly andesitic tuffs and breccias with lesser porphyritic flows. Andesitic rocks are generally extensively propylitized with narrow sections of fresh andesite. Fault zones are abundant and may brecciate the core for widths up to 18m (eg. 18.50 to 36.00m). These brecciated sections generally contain numerous white carbonate stringers, abundant clay and gouge and



#### LEGEND

- [Symbol: Small squares] Andesitic feldspar porphyry flows.
- [Symbol: Dots] Andesitic breccia
- [Symbol: Dots] Andesitic lapilli tuff
- [Symbol: Dots] Felsic crystal tuff
- [Symbol: Diagonal lines] Silicified, brecciated zone
- F Fluorite
- Py Pyrite

**Rio Algom Exploration Inc.**

**GOLD OPTION**

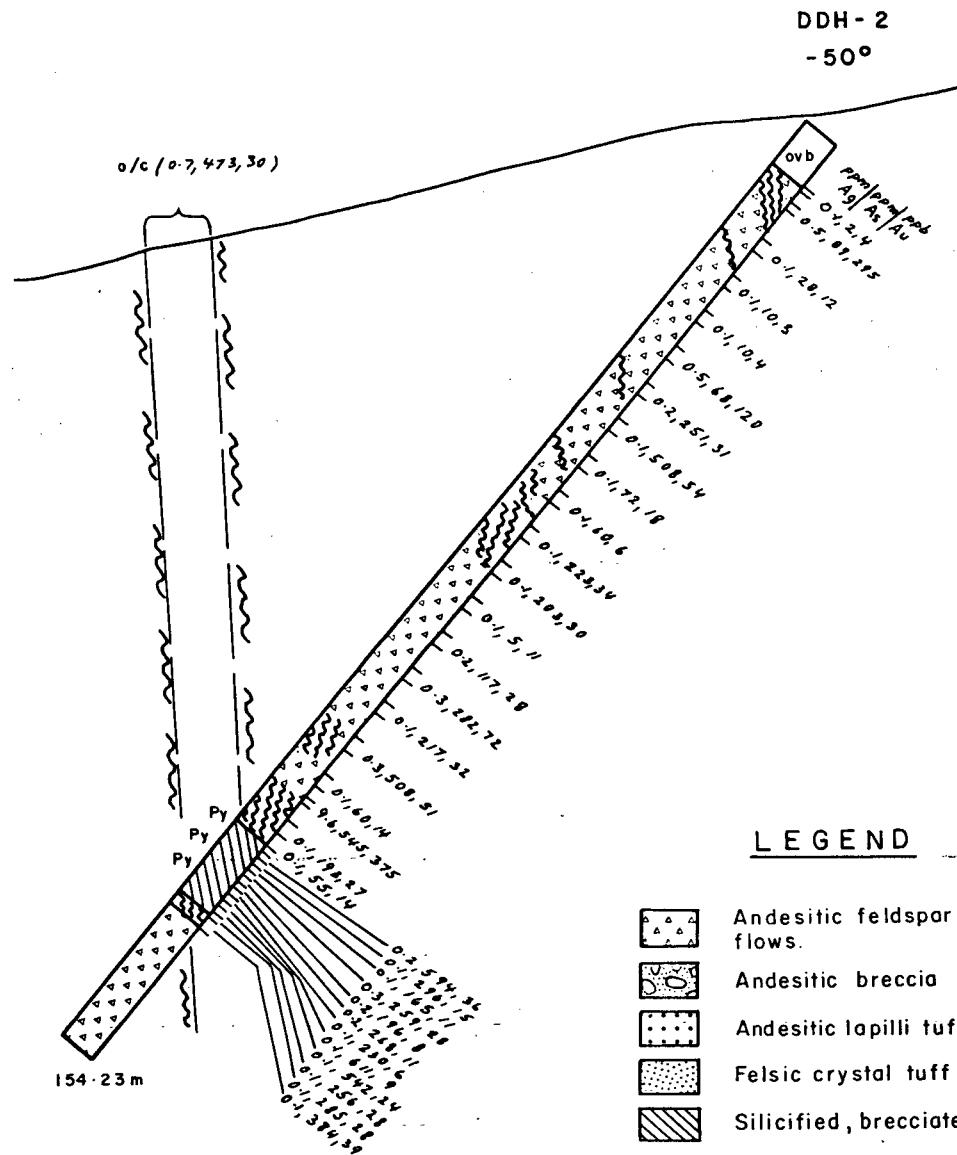
**DDH I**

**SCHEMATIC SECTION AND  
Ag, As, Au GEOCHEMISTRY**

NTS 82 E / 6  
SCALE 1:1000

20 10 0 20 40 Metres

DATE	DRAWN BY	DWG.
JAN. 1985.	R.M.C. / J.S.	FIG. 2



**Rio Algom Exploration Inc.**

**GOLD OPTION**

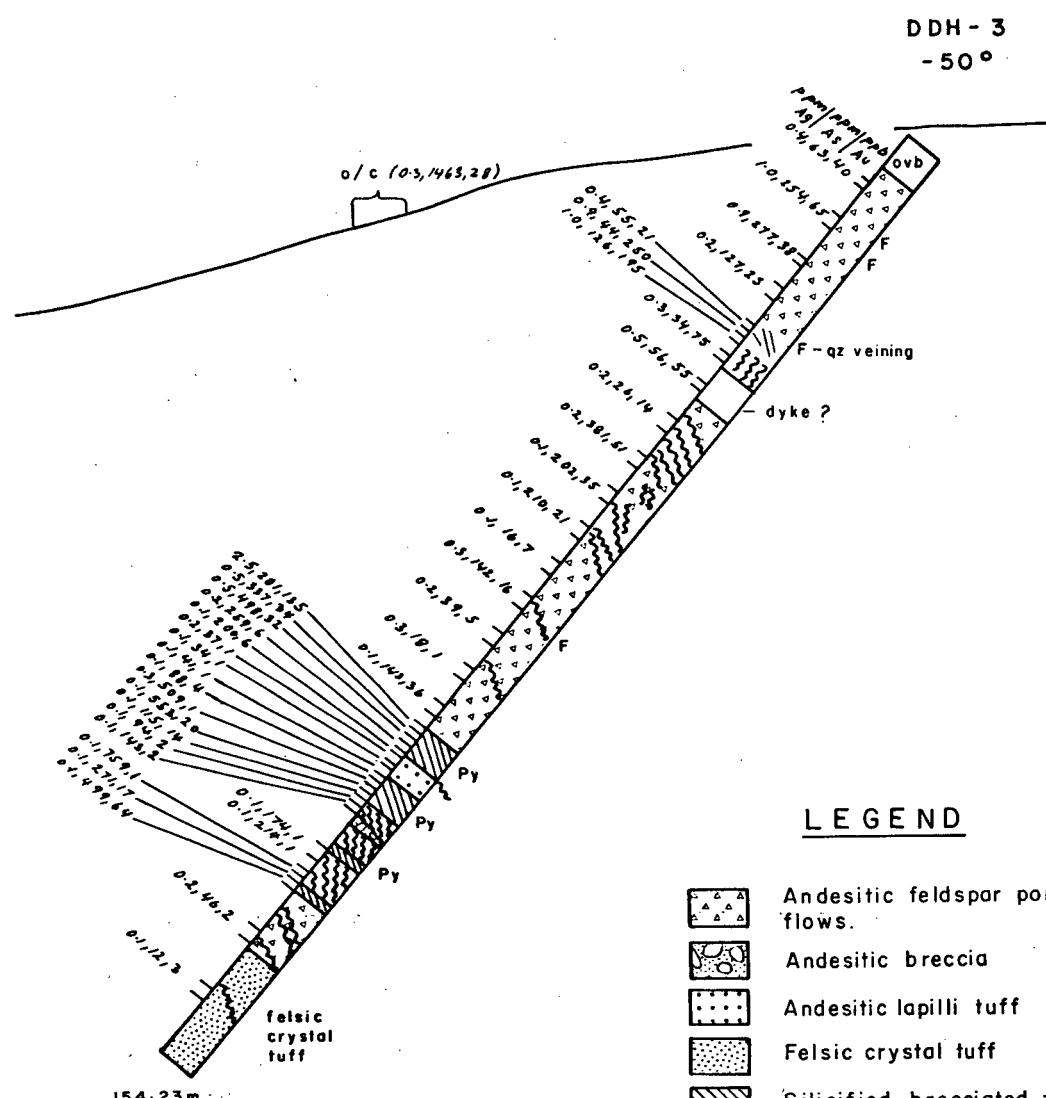
NTS 82 E / 6

SCALE 1:1000



**DDH 2**  
**SCHEMATIC SECTION AND**  
**Ag, As, Au GEOCHEMISTRY**

DATE	DRAWN BY	DWG.
JAN. 1985.	R.M.C. / J.S.	FIG. 3



LEGEND

[Symbol: Andesitic feldspar porphyry flows]	Andesitic feldspar porphyry flows.
[Symbol: Andesitic breccia]	Andesitic breccia
[Symbol: Andesitic lapilli tuff]	Andesitic lapilli tuff
[Symbol: Felsic crystal tuff]	Felsic crystal tuff
[Symbol: Silicified, brecciated zone]	Silicified, brecciated zone
F	Fluorite
Py	Pyrite

Rio Algoma Exploration Inc.

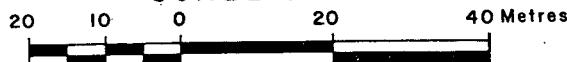
GOLD OPTION

DDH 3

SCHEMATIC SECTION AND  
Ag, As, Au GEOCHEMISTRY

NTS 82 E / 6

SCALE 1:1000



DATE	DRAWN BY	DWG.
JAN. 1985.	R.M.C. / J.S.	FIG. 4

patches of quartz, carbonate and occasionally fluorite.

Gold and silver values are generally less than 20ppb and 0.4ppm respectively. Highest gold value is 225ppb and occurs in a siliceous breccia between 80.1 and 80.8m.

Higher silver values between 1.0 and 2.9ppm are confined to narrow areas of brecciated silicified rock.

Ten analyses from DDH-1 were checked by reanalyzing the pulps using AA methods at Chemex Labs Ltd. Results are tabulated below.

<u>SAMPLE</u>	<u>Ag</u>		<u>Au</u>	
	<u>ACME (ICP)</u>	<u>CHEMEX (AA)</u>	<u>ACME (AA)</u>	<u>CHEMEX (AA)</u>
G-1822	1.6	1.7	225	175
G-1823	0.1	0.8	1	<5
G-1824	0.4	1.3	16	5
G-1825	0.3	0.6	19	<5
G-1826	0.3	1.4	5	15
G-1836	2.1	1.9	55	55
G-1837	1.9	2.7	42	45
G-1838	2.9	2.7	79	65
G-1839	1.1	1.1	38	15
G-1840	1.6	2.5	35	15

Comparison of these results indicate that the Chemex gold results agree reasonably with those of Acme and that differences are probably due to sampling errors. There are significant differences between Acme and Chemex for silver values less 2.0ppm. These differences are probably due to a combination of sampling error and analytical differences between ICP and AA techniques, but should be further investigated to determine the reliability of ICP analysis for very

low silver values.

Analyses and interpretation of drill core indicates that mineralization exposed in the Road Zone was not intersected in drill core. This may be due to either faulting or an erratic, poddy nature of mineralization.

DDH's 2 and 3 were successful in intersecting at depth the silicified, arsenic-rich zone outcropping on surface (Meadow Zone). Host rocks as intersected in core consist of a monotonous sequence of green and maroon porphyritic andesite flows. A fine to medium-grained felsic tuff was intersected at the bottom of DDH-3.

As intersected in DDH-2, the silicified zone is 11m wide (118.8 to 129.8) and consists of angular bleached and silicified pyritic volcanic fragments in a siliceous matrix. The zone is bounded by significant faults. In DDH-3 the zone is of similar width but has a matrix which varies from chloritic to siliceous. Several slices of volcanic rock chop up the zone so it is not as continuous as in DDH-2.

Analytical results indicate silver, arsenic and gold results are similar to or less than those reported from outcrop. Silver varies from 0.1 to 0.5ppm, arsenic from 34 to 759ppm and gold from 1 to 36ppb. Higher gold values (195 & 250ppb) occur in association with quartz veining in the top of DDH-3.

## 6. GEOLOGY

### 6.1 REGIONAL GEOLOGY

GSC Map 15-1961 (Little, 1961), the most recent publication for this area, shows an 11 by 3km oval area of Eocene rocks overlying mainly Cretaceous Valhalla granitic rocks and partly Monashee gneisses. Little divided the Tertiary outlier into a lower sedimentary unit and an upper volcanic flow unit. However, GSC Map 538A (Cairnes, 1940) shows the same Tertiary outlier divided into a lower volcanic unit and an upper sedimentary unit, an interpretation which better fits what is observed on Gold.

These units appear to be equivalent to Church's (1973) White Lake Formation described in the upper part of the Tertiary package. The White Lake Formation hosts the mineralization of the Dusty Mac deposit at Okanagan Falls.

### 6.2 PROPERTY GEOLOGY AND MINERALIZATION

Geological mapping and sampling on Gold is hampered by a complete cover of swamp and outwash gravels west of Solco Creek and by extensive glacial till east of Solco Creek. Outcrop is less than one percent. Striations on glacially smoothed outcrops indicate an eastward or east-southeastward glacial movement.

Tertiary rocks on Gold can be divided into a lower volcanic package and an upper sedimentary-volcaniclastic package (DWG. G-8034). Lower volcanic units (Units 2 and 3) consist predominantly of non-magnetic, green feldspar porphyry andesitic flows, monolithic breccias, laharls, and minor volcanic sandstone. Feldspar phenocrysts 2-6mm in length, are generally altered to carbonate and sericite. Pseudomorphs of biotite and hornblende are commonly observed in hand specimen. When fresher the flows have a marroon or dark green-grey colour and are weakly to moderately magnetic.

Although not outcropping, a felsic crystal tuff was intersected at the bottom of DDH-3, below a sequence of andesitic flows. Based on detailed logging of drill core from the Venner claim, geologists of Lacana Mining Corp. interpret the volcanic package as striking northwesterly and dipping to the north.

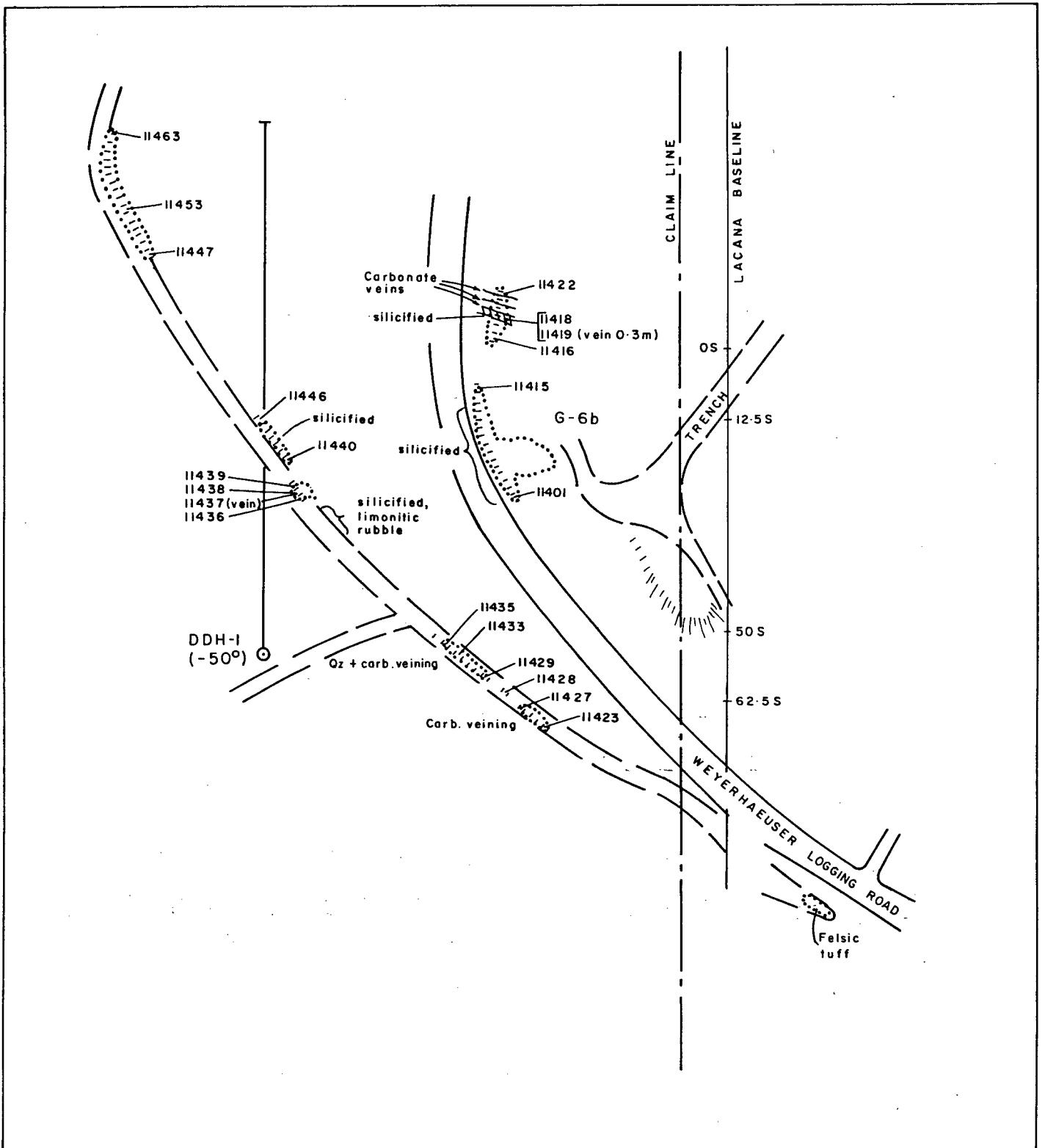
Unconformably(?) overlying the above rocks is a package of tuff, sandstone and conglomerate (Units 4,5,6). Although poorly exposed, bedding attitudes indicate the package trends north-northeasterly and dips at 40° to the east. No mineralization is known to occur in these upper units.

Conclusive evidence is lacking but outcrop and drill core

information suggests the Tertiary rocks are cut by a series of northwest-trending east dipping faults which have successively dropped strata to the east. Another fault exposed in Venner Creek, is believed to have downdropped Tertiary rocks against older Monashee gneiss along the south edge of the Tertiary outlier.

Gold and silver mineralization in the Road Zone is associated with limonitic, fractured, propylitic andesite which is locally pervasively replaced by chalcedony and cut by steeply dipping quartz-carbonate veins up to 1.5m wide. Finely disseminated pyrite locally forms 1% of the silicified rock. Gold and silver assay values for this zone are plotted on Figures 5 and 6.

The best gold and silver values occur in the northernmost roadcut along the main logging road. Gold values increase steadily from 0.40 g/t at the south end of the exposure to 3.60 g/t at the north end. Silver is anomalous, though the best silver values (11.0 g/t and 14.5 g/t) occur at the south end of the outcrop. Although silicified volcanics adjacent to quartz-carbonate veins are anomalous in gold (eg. 0.70 g/t for sample 11418), veins appear to carry most of the gold (eg. 1.60 g/t for sample 11419).



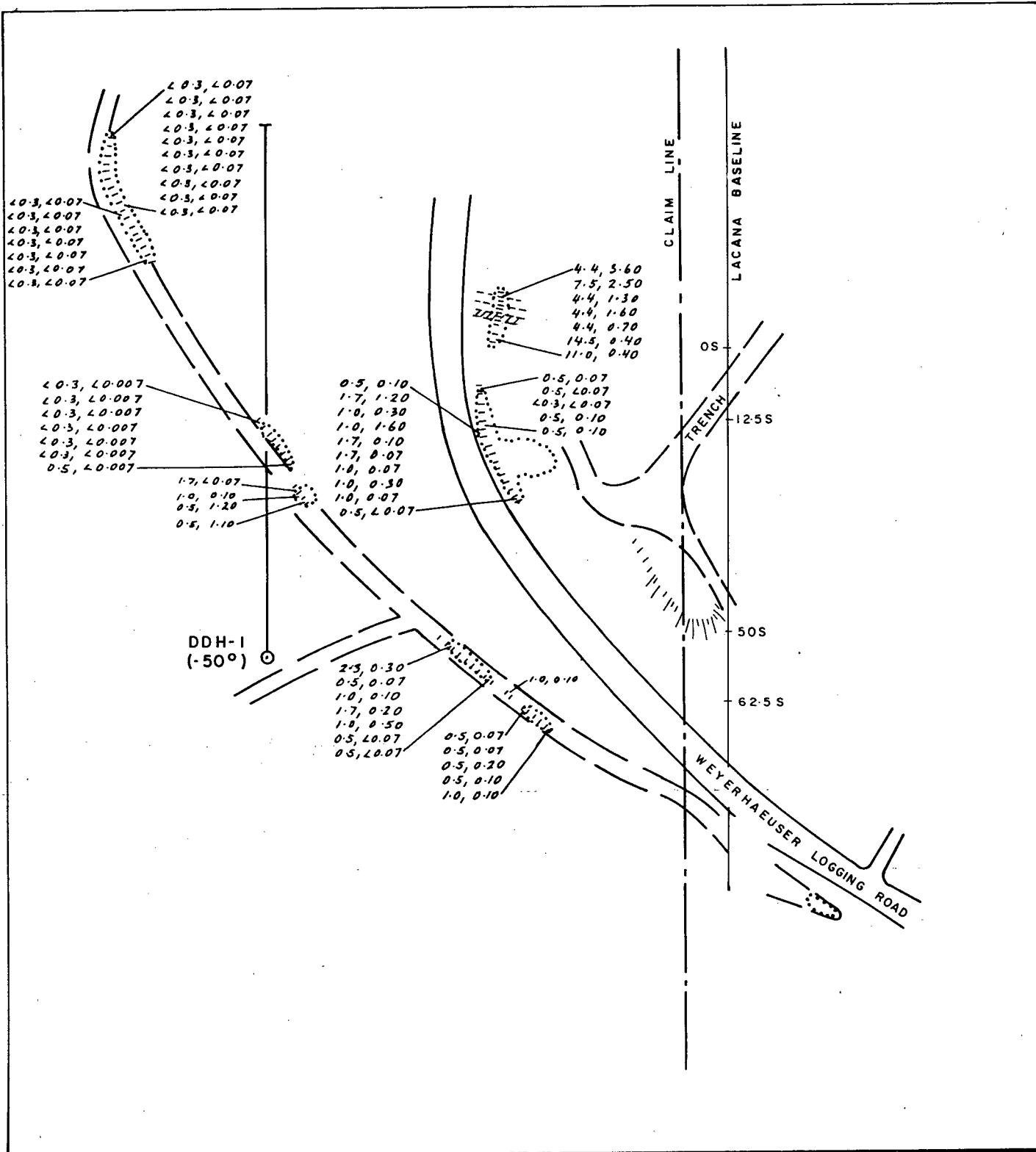
**Rio Algom Exploration Inc.**

GOLD OPTION

TRENCH SAMPLE LOCATIONS

NTS 93 F / 3  
SCALE 1:1000  
20 10 0 20 40 Metres

DATE	DRAWN BY	DWG.
JAN. 1985.	R.M.C. / J.S.	FIG. 5



LEGEND

1.0, 0.10 — g/t Ag, g/t Au

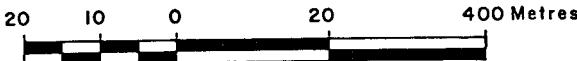


# Rio Algom Exploration Inc.

## GOLD OPTION

NTS 93 F / 3

SCALE 1:1000



## TRENCH ASSAYS Ag, Au

DATE	DRAWN BY	DWG.
JAN. 1985.	R.M.C. / J.S.	FIG. 6

Massive quartz-carbonate veins could not be traced for more than 2-3m on surface or at depth in DDH-1. This discontinuity may be at least partly due to faulting.

Drilling by Lacana on the Venner claim in 1982 and 1983 intersected similar mineralization with erratic gold grades over widths of 1 to 4m in east-west trending, steeply dipping zones. Intersections were erratic and could not be correlated with any certainty into distinct zones over lengths of more than 50m.

The Meadow Zone is a fault controlled zone of brecciated and silicified volcanic rocks which have been healed by silica flooding. Pyrite varies from 1 to 5% within the silicified parts. No alteration related to this mineralization was observed in adjacent volcanic rocks.

Although silicified rocks are anomalous in arsenic (165 to 1463ppm), gold values are low, varying between 4 and 135ppb. In volcanic rocks marginal to the Meadow Zone, gold values locally reach 295ppb over 1m in association with quartz veining and narrow brecciated silicified zones. No changes in alteration or grades were observed along strike or with depth.

Northwest trending silicified shear zones cutting

andesite along Solco Creek are similar in character to outcrops in the Meadow Zone, however, arsenic values along Solco Creek are considerably lower.

## 7. DISCUSSION

Gold-silver mineralization on Gold appears to be structurally controlled and confined to Eocene subaerial andesitic volcanic flows and breccias. Older mineralization, as represented by the Road Zone, appears controlled by early steeply dipping east-west trending structures. This zone was not intersected in the 1984 drilling; however, outcrop exposures and intersections in Lacana's drill holes indicates that gold values are associated with 1 to 9m wide zones of quartz-carbonate breccia and silicified andesites within zones of strongly propylitized andesites. Pyrite commonly occurs as disseminations and electrum has been reported by Lacana.

Continuity of these east-west zones is a major problem. Drilling by Lacana traced one tentative zone for 50m. The Road Zone exposed in outcrops was possibly intersected by Lacana 60m to the east but was not intersected by DDH-1, 40m to the west. Grades are also erratic, varying from barren intersections in drill core to, for example, 3.05 g/t Au over 3m in outcrop.

East-west structures appear to be offset by the later northwest-trending structures such as the major fault hosting

the Meadow Zone. These structures appear to down-drop strata to the east. The Meadow Zone consists of brecciated, pyritic, silicified volcanics which are strongly anomalous in arsenic but only locally weakly anomalous in gold and silver. Testing of this zone by DDH's 2 and 3 showed no indication of gold or silver increasing with depth or along strike.

Mineralization as exposed in the Road Zone shows some similarities to the Dusty Mac deposit near Okanagan Falls, and to the Mount Skookum deposit (149,700 tonnes @ 25.0 g/t Au) in the southern Yukon (Agip-Erickson).

The location of mineralization at Gold within Eocene andesites near overlying sedimentary and volcaniclastic rocks is identical to the stratigraphic position of mineralization at Dusty Mac. Ore at Dusty Mac, however, was characterized by intense brecciation and silicification, high silver values (160 g/t average) and an absence of carbonate alteration. The latter two aspects differ from Gold and probably result from the more widespread, intense silicification and brecciation present at Dusty Mac.

Mineralization on Gold is similar to Mount Skookum in that values are associated with massive, white, low-sulphide, quartz-carbonate veins cutting propylitized, Eocene subaerial

andesites. It is believed that gold mineralization on Skookum is genetically related to propylitization of andesites.

The Gold prospect can probably be classed as an epithermal deposit because of it's structural control, mineralogy and chalcedonic silicification. Mineralization is not typical in that it is associated with quartz-carbonate breccias and andesitic volcanism.

Grade continuity problems are typical of epithermal deposits, however, on this property the problem has been intensified by the weakness of structures and by the later faulting and offsetting. Exploration has also been hampered by lack of response to magnetic, VLF-EM, and geochemical methods.

#### 8. RECOMMENDATIONS

No further work is recommended on the Meadow Zone because there is no indication grades improve along strike or with depth.

Two additional diamond drill holes are recommended to test the Road Zone. These holes should test beneath the roadcut of the Road Zone and overburden covered areas north of the outcrop. Gold grades in this exposure were increasing to the north before outcrop was covered by overburden. Depending on the results of this drilling, more testing may be warranted to trace the zone further west.



## 9. REFERENCES

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- Church, B.N. (1982) The Dusty Mac Deposit; In: Copper Mountain-Phoenix Tour, Southern British Columbia, GAS Guidebook.
- Church, B.N. (1973) Geology of the White Lake Basin, B.C. Dept. of Mines and Petroleum Resources, Bulletin 61.
- Little, H.W. (1961) Kettle River (West Half), Geol. Surv. Can. Map 15-1961
- Daughtry, K.L. (1982) Geophysical Assessment Report on the GOLD Property Osoyoos Mining Division, B.C.
- Daughtry, K.L. & Gilmour W.R. (1981) Geochemical Assessment Report on the GOLD Property, Osoyoos Mining Division, B.C.
- GEM (1976) pp E26-27 AU, RAIN
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- G.S.C. (1961) Map 15. Kettle River West Half 1.253,440
- Nielsen, P.P. (1983) Geophysical Assessment Report on the GOLDEN and GOLD Mineral Claims Osoyoos Mining Division.

**APPENDIX A**  
**COST STATEMENT**

## GENERAL COST STATEMENT

### Personnel

R.M. Cann (Geologist) July 16-22; Aug. 3; Oct. 3-12 @ \$105/day	\$1890.00
R. Clark (Assistant) July 16-Aug. 3 @ \$54	972.00
D. Sexsmith (Geophysicist) July 23-30 @ \$85	680.00
L. Holmgren (Geologist) Oct. 3-12 @ \$74	740.00
C. D. Spence (Supervision)	1370.00
Benefits @ 25%	<u>1412.50</u>
	\$7,064.50

### Rentals

Truck (Redhawk-Vancouver)	\$850.00
Magnetometer (EDA Instruments Inc.)	\$1,300.00

### Food & Accommodation

Sun-Oka Motor Inn, Okanagan Falls	\$2,916.00
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### Supplies

Assaying	\$954.00
Chemex Labs. Ltd. 63 samples @ \$18.75	\$1,181.25

### Geochemical Analyses

Acme Analytical Laboratories	
\$8.60 X 912 soil (5 element ICP + Au)	\$7843.20
\$14.25 X 23 rocks (30 element ICP Au)	\$327.75
\$14.25 X 72 core (11)	\$1026.00
\$12.25 X 40 core (5 element ICP + Au)	<u>\$490.00</u>
	\$9,687.00

### Diamond Drilling

Beaupre Diamond Drilling Ltd., Princeton 456.6m @ \$59.06/m	\$26,966.80
Road Construction - 5 hrs @ \$55/hour	<u>\$275.00</u>
	\$27,241.80

### Drafting and Report Preparation

TOTAL	\$53,195.00
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Costs Incurred Prior to July 14	\$6,826.75
GRAND TOTAL	<u>\$60,021.00</u>

## DIAMOND DRILLING COSTS

### Personnel

R. M. Cann (Geologist) Oct. 3-12 @ \$105	\$1,050.00
L. Holmgren (Geologist) Oct. 3-12 @74	\$740.00
Benefits (25% of above)	<u>\$448.00</u>
	\$2,238.00

### Rentals

Truck (Redhawk)	\$425.00
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### Food & Accommodation

20 person days @ \$54/day	\$1,080.00
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Supplies	\$700.00
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### Geochemical Analyses

Acme Analytical Laboratories	
72 samples @ \$14.25 (30 elements - ICP plus Au FA/AA)	\$1,026.00
40 samples @ \$12.25 (5 elements - ICP plus Au FA/AA)	<u>\$490.00</u>
	\$1,516.00

### Diamond Drilling

Beaupre Diamond Drilling Ltd., Princeton	\$26,966.80
456.6m @ 59.06/m	\$275.00
Road work - 5 hours @ \$55.00/hr.	

### Drafting & Report Preparation

TOTAL	\$800.00
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	\$34,001.00
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## GEOLOGY COSTS

### Personnel

R. M. Cann - July 16-22; Aug. 3 @ \$105/ day	\$840.00
R. Clark - July 16-22; Aug. 3 @ \$54/day	\$432.00
C. D. Spence (Supervision)	\$1,000.00
Benefits (25% of above)	<u>\$568.00</u>
	\$2,840.00

### Rentals

Truck (Redhawk - Vancouver)	\$250.00
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### Food & Accommodation

16 person days @ \$54/day	\$864.00
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### Assaying

Chemex Labs. Ltd. 63 @ \$18.75 (Au & Ag)	\$1,181.25
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### Geochemical Analyses

Acme Analytical Laboratories 23 @ \$14.25 (30 elements - ICP + Au-FA/AA)	\$327.75
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### Drafting and Report Preparation

Total	\$6,063.00
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GEOCHEMICAL COSTS

Geochemical Analyses (after July 14, 1984)

Acme Analytical Laboratories  
912 soils @ \$8.60 (5 elements ICP + Au(AA)) \$7,843.00

GEOPHYSICAL COSTS

Personnel

D. Sexsmith July 23-30 @ \$85	\$680.00
R. Clark - July 24-Aug. 2 @ \$54	\$540.00
C. D. Spence (Supervision)	\$370.00
Benefits (25% of above)	<u>\$397.50</u>
	\$1,987.00

Rentals

Magnetometer (EDA Instruments Inc.)	\$1,300.00
Truck (Redhawk Rentals)	\$175.00

Food & Accomodation

Sun-Oka Motor Inn 18 person day @ \$54/ day	\$972.00
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Supplies \$254.00

Drafting & Report Preparation \$600.00

Total \$5,288.00

**APPENDIX B**  
**SOIL SAMPLE RESULTS**

ACME ANALYTICAL LABORATORIES LTD.  
852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6  
PHONE 253-3158 DATA LINE 251-1011



## GEOCHEMICAL ICP ANALYSIS

.500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-3 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.  
THIS LEACH IS PARTIAL FOR MN, FE, CA, P, CR, MG, BA, TI, B, AL, NA, K, W, SI, ZR, CE, SN, Y, NB AND TA. AU DETECTION LIMIT BY ICP IS 3 PPM.

- SAMPLE TYPE: SOIL AU\* ANALYSIS BY AA FROM 10 GRAM SAMPLE.

ASSAYER: *D. Pepp* DEAN TOYE. CERTIFIED B.C. ASSAYER

RIO ALGOM PROJECT # 8808 FILE # 84-1583

PAGE 1

SAMPLE#	CU PPM	PB PPM	AG PPM	AS PPM	SB PPM	AU* PPB
ON 425W	8	5	.2	2	2	5
ON 400W	5	3	.1	2	2	5
ON 375W	8	8	.1	13	2	5
ON 350W	7	5	.1	10	2	5
ON 325W	6	1	.1	3	2	5
ON 300W	6	5	.1	26	2	5
ON 275W	10	5	.1	30	2	5
ON 250W	8	5	.1	19	2	5
ON 225W	6	5	.1	12	2	5
ON 200W	8	8	.1	40	2	5
ON 175W	8	10	.4	49	2	30
ON 150W	6	4	.1	17	2	5
ON 125W	4	2	.1	5	2	10
ON 100W	3	4	.1	3	2	5
ON 75W	10	4	.1	5	2	5
ON 50W	3	3	.1	2	2	5
ON 25W	6	6	.3	4	2	5
ON 0E	12	9	.1	2	2	5
ON 25E	29	6	.1	2	2	5
ON 50E	5	4	.1	2	2	5
ON 75E	7	8	.1	3	2	5
ON 100E	9	7	.1	3	2	5
ON 125E	8	6	.1	2	2	5
ON 150E	6	5	.1	2	2	5
ON 175E	5	3	.1	2	2	15
ON 200E	5	4	.1	4	2	5
ON 225E	5	3	.1	2	2	5
ON 250E	6	6	.1	3	2	5
ON 275E	6	5	.1	6	2	5
ON 300E	6	9	.1	2	2	5
ON 325E	6	6	.1	2	2	5
ON 350E	6	6	.1	2	2	5
ON 375E	7	6	.1	2	2	5
ON 400E	5	4	.1	2	2	5
ON 425E	10	6	.1	2	2	5
ON 450E	6	4	.1	2	2	5
ON 475E	8	4	.1	2	2	10
STD S-1/AU-0.5	125	116	34.1	119	86	510

RIO ALGOM

PROJECT # 8808

FILE # 84-1583

PAGE 2

SAMPLE#	CU PPM	PB PPM	AG PPM	AS PPM	SB PPM	AU* PPB
ON 500E	9	6	.3	4	2	5
ON 525E	11	5	.1	2	2	5
ON 550E	8	6	.1	3	2	5
ON 575E	8	8	.1	4	2	5
ON 600E	10	4	.1	3	2	5
ON 625E	11	3	.1	3	2	5
ON 650E	15	2	.1	4	2	5
ON 675E	10	4	.1	4	2	5
ON 700E	12	5	.1	4	2	5
ON 725E	7	1	.1	2	2	5
ON 750E	5	5	.1	2	2	5
ON 775E	7	4	.1	2	2	5
ON 800E	8	6	.1	2	2	5
ON 825E	8	7	.1	2	2	5
ON 850E	7	8	.1	2	2	10
ON 875E	6	6	.1	2	2	5
ON 900E	5	6	.1	2	2	5
ON 925E	5	3	.1	2	2	5
ON 950E	6	6	.1	2	2	5
ON 975E	4	6	.1	2	2	5
ON 1000E	4	6	.1	2	2	5
O.5S 425W	8	4	.1	5	2	5
O.5S 400W	7	4	.1	5	2	10
O.5S 375W	5	2	.1	7	2	5
O.5S 350W	7	4	.1	7	2	5
O.5S 325W	7	2	.1	7	2	5
O.5S 300W	8	4	.1	76	2	5
O.5S 275W	7	4	.1	73	2	5
O.5S 250W	18	14	.7	419	7	15
O.5S 225W	13	7	.1	92	3	5
O.5S 200W	5	3	.1	40	2	5
O.5S 175W	7	3	.1	24	2	10
O.5S 150W	8	2	.1	6	2	5
O.5S 125W	11	5	.1	6	2	5
O.5S 100W	7	4	.1	6	2	5
O.5S 50W	7	5	.1	3	2	5
O.5S 25W	10	4	.1	4	2	5
STD S-1/AU-0.5	124	117	35.1	128	80	520

RIO ALGOM

PROJECT # 8808

FILE # 84-1583

PAGE 3

SAMPLE#	CU PPM	PB PPM	AG PPM	AS PPM	SB PPM	AU* PPB
0.5S 0E	5	8	.1	2	2	5
0.5S 25E	5	5	.1	2	2	5
0.5S 50E	16	9	.1	2	2	5
0.5S 75E	7	5	.1	2	2	5
0.5S 100E	24	5	.1	2	2	5
0.5S 125E	4	4	.1	2	2	20
0.5S 150E	11	5	.1	5	2	5
0.5S 175E	8	9	.1	2	2	5
0.5S 200E	3	3	.1	4	2	5
0.5S 225E	4	4	.1	2	2	5
0.5S 250E	3	3	.1	2	2	5
0.5S 275E	3	3	.1	2	2	5
0.5S 300E	4	3	.1	2	2	5
0.5S 325E	3	3	.1	2	2	5
0.5S 350E	4	3	.1	2	2	5
0.5S 375E	5	3	.1	2	2	5
0.5S 400E	7	1	.1	2	2	5
0.5S 425E	4	1	.1	2	2	5
0.5S 450E	7	1	.1	2	2	5
0.5S 475E	7	2	.1	2	2	5
0.5S 500E	6	5	.1	2	2	5
1S 500W	7	4	.1	2	2	5
1S 475W	5	3	.1	2	2	5
1S 450W	10	3	.1	2	2	5
1S 425W	6	3	.1	2	2	5
1S 400W	16	7	.1	2	2	80
1S 375W	10	3	.1	3	2	5
1S 350W	20	6	.1	7	2	5
1S 325W	13	4	.1	8	2	5
1S 300W	6	4	.1	4	2	5
1S 275W	5	2	.1	2	2	5
1S 250W	7	6	.2	3	2	5
1S 225W	9	5	.1	3	2	5
1S 200W	10	7	.1	2	2	5
1S 175W	6	1	.1	2	2	5
1S 150W	8	4	.1	3	2	5
1S 125W	7	1	.1	5	2	5
STD S-1/AU-0.5	124	117	34.4	120	79	510

RIO ALGOM PROJECT # 8808 FILE # 84-1583

PAGE 4

SAMPLE#	CU PPM	PB PPM	AG PPM	AS PPM	SB PPM	AU* PPB
1S 100W	10	5	.3	5	2	5
1S 75W	7	4	.1	4	2	5
1S 50W	3	4	.1	3	2	5
1S 25W	7	6	.1	6	2	5
1S 0E	5	5	.1	7	2	5
1S 25E	7	2	.1	5	2	5
1S 50E	10	5	.1	3	2	5
1S 75E	6	4	.1	2	2	5
1S 100E	5	2	.1	2	2	5
1S 125E	3	2	.1	2	2	5
1S 150E	4	6	.1	3	2	210
1S 175E	4	6	.1	2	2	10
1S 200E	4	6	.1	2	2	
1S 225E	3	6	.1	2	2	
1S 250E	5	6	.1	2	2	
1S 275E	5	4	.1	2	2	
1S 300E	15	5	.1	2	2	
1S 325E	7	6	.4	2	2	
1S 350E	11	6	.1	2	2	
1S 375E	6	5	.1	2	2	
1S 400E	8	5	.1	2	2	
1S 425E	7	4	.1	2	2	
1S 450E	7	5	.1	2	2	
1S 475E	5	4	.1	2	2	
1S 500E	6	5	.1	2	2	
1.5S 350W	23	8	.2	2	2	
1.5S 325W	7	6	.1	2	2	
1.5S 300W	5	4	.1	2	2	
1.5S 275W	5	5	.1	2	2	
1.5S 250W	4	6	.1	2	2	
1.5S 225W	5	5	.1	2	2	
1.5S 200W	4	5	.1	2	2	
1.5S 175W	5	5	.1	2	2	
1.5S 150W	7	6	.1	2	2	
1.5S 125W	4	4	.1	2	2	
1.5S 100W	5	4	.1	2	2	5
1.5S 75W	5	5	.1	2	2	5
STD S-1/AU-0.5	123	114	33.9	121	78	515

RIO ALGOM

PROJECT # 8808

FILE # 84-1583

PAGE 5

SAMPLE#	CU PPM	PB PPM	AG PPM	AS PPM	SB PPM	AU* PPB
1.5S 50W	5	6	.2	4	N	5
1.5S 25W	4	5	.1	N	N	
1.5S 0E	4	5	.1	N	N	
1.5S 25E	6	4	.1	N	N	
1.5S 50E	13	4	.1	4	N	5
1.5S 75E	6	4	.1	N	N	
1.5S 100E	4	5	.1	N	N	
1.5S 125E	9	4	.1	N	N	
1.5S 150E	8	6	.1	N	N	
1.5S 175E	5	6	.1	N	N	
1.5S 200E	7	5	.1	N	N	
1.5S 225E	5	4	.1	N	N	
1.5S 250E	9	4	.1	N	N	
1.5S 275E	3	5	.1	N	N	
1.5S 300E	7	6	.1	N	N	
1.5S 325E	4	N	.1	N	N	
1.5S 350E	5	N	.1	N	N	
1.5S 375E	4	N	.1	N	N	
1.5S 400E	3	N	.1	N	N	
1.5S 425E	8	N	.1	N	N	
1.5S 450E	9	N	.1	N	N	
1.5S 475E	8	N	.1	N	N	
1.5S 500E	5	N	.1	N	N	
2S 425W	12	4	.1	6	N	
2S 400W	47	9	.5	9	N	
2S 375W	33	11	.3	14	N	
2S 350W	7	4	.1	3	N	
2S 325W	7	3	.1	2	N	
2S 300W	5	3	.1	2	N	
2S 275W	5	3	.1	2	N	
2S 250W	5	3	.1	2	N	
2S 225W	5	4	.1	2	N	
2S 200W	6	2	.1	4	N	
2S 175W	6	1	.1	4	N	
2S 150W	6	5	.1	6	N	
2S 125W	6	4	.1	2	N	
2S 100W	4	1	.1	2	N	
STD S-1/AU-0.5	124	117	34.9	124	78	510

RIO ALGOM

PROJECT # 8808

FILE # 84-1583

PAGE 6

SAMPLE#	CU PPM	PB PPM	AG PPM	AS PPM	SB PPM	AU* PPB
2S 75W	5	4	.1			5
2S 50W	4	1	.1			5
2S 25W	5	4	.1			5
2S 0E	7	2	.1			15
2S 25E	5	1	.1			5
2S 50E	5	4	.1			5
2S 75E	7	4	.1			5
2S 100E	5	2	.1			5
2S 125E	7	2	.1			5
2S 150E	4	4	.1			5
2S 175E	5	3	.1			5
2S 200E	6	1	.2			15
2S 225E	8	4	.4			5
2S 250E	5	2	.1			15
2S 275E	6	1	.1			5
2S 300E	5	3	.1			25
2S 325E	5	2	.1			15
2S 350E	4	1	.1			30
2S 375E	6	4	.1			5
2S 400E	5	3	.1			5
2S 425E	7	5	.1			5
2S 450E	3	1	.1			15
2S 475E	5	2	.1			5
2S 500E	5	3	.1			30
2.5S 500W	17	8	.3	4		30
2.5S 475W	30	5	.5	4		15
2.5S 450W	20	6	.2	2		5
2.5S 425W	22	14	.3	5		10
2.5S 400W	15	6	.2	9		5
2.5S 375W	34	5	.3	2		5
2.5S 350W	11	5	.1	7		5
2.5S 325W	7	2	.1	5		5
2.5S 300W	5	3	.2	5		5
2.5S 275W	5	3	.1	5		5
2.5S 250W	5	3	.1	5		5
2.5S 225W	13	4	.1	3		15
2.5S 200W	6	6	.1	2		5
STD S-1/AU-0.5	124	117	33.0	125	84	510

## RIO ALGOM PROJECT # 8808 FILE # 84-1583

PAGE 7

SAMPLE#	CU PPM	PB PPM	AG PPM	AS PPM	SB PPM	AU* PPB
2.5S 175W	12	4	.1	4	2	5
2.5S 150W	7	4	.1	4	2	5
2.5S 125W	6	4	.1	3	2	5
2.5S 100W	7	4	.1	3	2	5
2.5S 75W	6	7	.1	3	2	5
2.5S 50W	5	3	.1	3	2	25
2.5S 25W	5	5	.1	3	2	25
2.5S 0E	7	4	.1	3	2	25
2.5S 25E	7	2	.1	3	2	25
2.5S 50E	6	4	.1	3	2	25
2.5S 75E	7	1	.1	4	2	5
2.5S 100E	6	6	.1	4	2	5
2.5S 125E	6	4	.1	4	2	5
2.5S 150E	7	3	.1	4	2	5
2.5S 175E	7	3	.1	4	2	5
2.5S 200E	7	4	.1	3	2	10
2.5S 225E	6	4	.1	3	2	10
2.5S 250E	6	1	.1	3	2	10
2.5S 275E	8	2	.1	3	2	10
2.5S 300E	7	3	.1	3	2	10
2.5S 325E	12	4	.2	4	2	5
2.5S 350E	6	1	.1	2	2	25
2.5S 375E	8	4	.1	4	2	5
2.5S 400E	9	2	.1	4	2	5
2.5S 425E	7	2	.1	2	2	5
2.5S 450E	8	1	.1	3	2	5
2.5S 475E	6	3	.1	3	2	5
2.5S 500E	7	1	.1	3	2	5
3S 450W	18	6	.1	6	2	5
3S 425W	17	6	.1	2	2	5
3S 400W	18	5	.1	3	2	5
3S 375W	25	6	.1	6	2	5
3S 350W	13	3	.2	4	2	5
3S 325W	15	5	.1	4	2	5
3S 300W	27	7	.1	4	2	5
3S 275W	9	2	.1	5	2	5
3S 250W	10	4	.1	5	2	5
STD S-1/AU-0.5	125	116	34.8	128	79	510

RIO ALGOM

PROJECT # 8808

FILE # 84-1583

PAGE 8

SAMPLE#	CU PPM	PB PPM	AG PPM	AS PPM	SB PPM	AU* PPB
3S 225W	9	7	.3	7	2	5
3S 200W	7	5	.3	5	2	5
3S 175W	7	4	.1	5	2	5
3S 150W	7	5	.1	6	2	5
3S 125W	6	5	.1	5	2	5
3S 100W	10	7	.1	6	2	5
3S 75W	6	5	.1	5	2	5
3S 50W	8	4	.1	5	2	5
3S 25W	4	4	.1	5	2	5
3S 0E	7	5	.1	5	2	5
3S 25E	5	4	.1	5	2	5
3S 50E	7	4	.1	5	2	5
3S 75E	7	3	.1	5	2	5
3S 100E	6	4	.1	5	2	5
3S 125E	7	5	.1	5	2	5
3S 150E	6	2	.1	4	2	5
3S 175E	8	8	.1	5	2	5
3S 200E	9	6	.1	5	2	5
3S 225E	7	5	.1	5	2	5
3S 250E	8	2	.1	5	2	5
3S 275E	7	4	.1	7	2	5
3S 300E	7	1	.1	5	2	5
3S 325E	7	3	.1	4	2	5
3S 350E	7	1	.1	4	2	5
3S 375E	8	4	.1	4	2	5
3S 400E	9	1	.1	5	2	5
3S 450E	13	6	.1	4	2	5
3S 475E	13	4	.1	5	2	5
3S 500E	6	2	.1	5	2	5
4S 500W	6	2	.1	5	2	5
4S 475W	15	5	.1	5	2	5
4S 450W	25	6	.1	5	2	5
4S 425W	9	5	.3	5	2	5
4S 400W	7	4	.1	5	2	5
4S 375W	12	5	.1	4	2	5
4S 350W	8	6	.2	5	2	5
4S 325W	8	4	.1	5	2	5
STD S-1/AU-0.5	124	115	35.5	127	82	530

RIO ALGOM

PROJECT # 8808

FILE # 84-1583

PAGE 9

SAMPLE#	CU PPM	PB PPM	AG PPM	AS PPM	SB PPM	AU* PPM
4S 300W	8	5	.5			
4S 275W	8	6	.2			
4S 250W	4	5	.1			
4S 225W	9	6	.1			
4S 200W	16	6	.1			
4S 175W	3	4	.1			
4S 150W	2	4	.1			
4S 125W	4	1	.1			
4S 100W	5	4	.1			
4S 75W	4	5	.1			
4S 50W	28	8	.2			
4S 25W	6	3	.1			
4S 0E	3	3	.1			
4S 25E	5	5	.1			
4S 50E	5	5	.1			
4S 75E	2	2	.1			
4S 100E	9	9	.1			
4S 125E	9	9	.1			
4S 150E	3	3	.1			
4S 175E	4	1	.1			
4S 200E	8	5	.1			
4S 225E	6	1	.1			
4S 250E	2	2	.1			
4S 275E	1	1	.2			
4S 300E	3	1	.1			
4S 325E	3	2	.1			
4S 350E	3	2	.1			
4S 375E	4	4	.1			
4S 400E	5	4	.1			
4S 425E	7	2	.1			
4S 450E	5	4	.1			
4S 475E	5	1	.1			
4S 500E	5	4	.1			
5S 550W	4	3	.1			
5S 525W	4	3	.1			
5S 500W	8	4	.1			
5S 475W	5	3	.1			
STD S-1/AU-0.5	126	118	33.0	122	83	510

RIO ALGOM

PROJECT # 8808

FILE # 84-1583

PAGE 10

SAMPLE#	CU PPM	FB PPM	AG PPM	AS PPM	SB PPM	AU* PPB
5S 450W	8	5	.2	3	2	5
5S 425W	7	5	.1	2	2	5
5S 400W	13	7	.1	2	2	5
5S 375W	18	8	.1	2	2	5
5S 350W	14	5	.1	2	2	5
5S 325W	9	6	.1	3	2	5
5S 300W	5	4	.1	2	2	5
5S 275W	5	4	.1	2	2	5
5S 250W	7	6	.1	2	2	5
5S 225W	15	5	.1	4	2	5
5S 200W	12	8	.1	4	2	5
5S 175W	6	3	.1	2	2	5
5S 150W	8	6	.1	2	2	5
5S 125W	12	9	.1	2	2	5
5S 100W	5	6	.1	2	2	5
5S 75W	8	4	.1	2	2	5
5S 50W	14	5	.1	2	2	5
5S 25W	24	11	.1	2	2	5
5S 0E	34	8	.1	2	2	5
5S 25E	21	7	.1	2	2	5
5S 50E	39	12	.2	2	2	5
5S 75E	18	4	.1	2	2	5
5S 100E	13	5	.1	2	2	5
5S 125E	13	5	.1	2	2	5
5S 150E	31	8	.2	2	2	5
5S 175E	22	7	.1	2	2	5
5S 200E	17	4	.2	2	2	5
5S 225E	15	6	.2	2	2	5
5S 250E	33	6	.3	2	2	5
5S 275E	15	5	.2	2	2	5
5S 300E	15	7	.2	2	2	5
5S 325E	8	3	.1	2	2	5
5S 350E	9	3	.1	2	2	5
5S 375E	8	5	.6	2	2	5
5S 400E	7	5	.1	2	2	5
5S 425E	6	6	.1	2	2	5
5S 450E	5	4	.1	2	2	5
STD S-1/AU-0.5	123	116	31.9	118	80	520

## RIO ALGOM PROJECT # 8808 FILE # 84-1583

PAGE 11

SAMPLE#	CU PPM	PB PPM	AG PPM	AS PPM	SB PPM	AU* PPB
5S 475E	7	6	.1	2	2	5
5S 500E	5	5	.1	4	2	2
6S 600W	8	7	.1	2	2	2
6S 575W	7	3	.1	2	2	2
6S 550W	8	6	.1	2	2	2
6S 525W	7	4	.1	2	2	2
6S 500W	5	6	.1	7	2	2
6S 475W	5	6	.1	4	2	2
6S 450W	5	4	.2	2	2	2
6S 425W	5	3	.1	3	2	2
6S 400W	6	5	.1	6	2	2
6S 375W	9	4	.1	2	2	2
6S 350W	7	2	.1	5	2	2
6S 325W	8	3	.1	7	2	2
6S 300W	9	3	.2	7	4	4
6S 275W	32	11	.1	9	2	2
6S 250W	18	3	.1	5	2	2
6S 225W	24	10	.1	7	2	2
6S 200W	16	7	.1	2	2	2
6S 175W	4	2	.1	3	2	2
6S 150W	9	5	.1	4	2	2
6S 125W	8	7	.1	2	2	2
6S 100W	9	2	.1	2	2	2
6S 50W	4	1	.1	9	2	2
6S 25W	10	6	.1	4	2	2
6S 0E	6	1	.1	4	2	2
6S 25E	6	5	.1	5	2	2
6S 50E	5	2	.1	5	2	2
6S 75E	6	4	.1	3	2	2
6S 100E	5	2	.1	4	2	2
6S 125E	6	7	.1	5	2	2
6S 150E	5	4	.1	6	2	2
6S 175E	5	1	.1	5	2	2
6S 200E	4	3	.1	4	2	2
6S 225E	6	3	.1	5	2	2
6S 250E	6	4	.1	6	2	2
6S 275E	4	2	.1	5	2	2
STD S-1/AU-0.5	124	117	34.0	121	77	520

## RIO ALGOM PROJECT # 8808

PAGE 12

SAMPLE#	CU PPM	PB PPM	AG PPM	AS PPM	SB PPM	AU* PPB
6S 300E	5	6	.1	2	2	5
6S 325E	3	4	.1	2	2	5
6S 350E	7	5	.1	4	2	5
6S 375E	7	5	.1	2	2	5
6S 400E	4	6	.1	2	2	5
6S 425E	5	4	.1	4	2	5
6S 450E	6	7	.1	2	2	5
6S 475E	7	5	.1	7	2	5
6S 500E	6	7	.1	3	2	5
7S 650W	19	12	.1	2	2	15
7S 625W	7	9	.1	2	2	5
7S 600W	6	5	.1	5	2	5
7S 575W	7	5	.1	2	2	5
7S 550W	8	11	.1	2	2	5
7S 525W	7	5	.1	7	2	5
7S 500W	4	2	.1	6	2	5
7S 475W	3	1	.1	2	2	5
7S 450W	6	5	.1	6	2	5
7S 425W	8	3	.1	2	2	5
7S 400W	5	4	.4	4	2	5
7S 375W	7	5	.1	5	2	5
7S 350W	8	1	.1	7	2	5
7S 325W	4	1	.1	4	2	5
7S 300W	6	1	.2	11	2	5
7S 275W	8	5	.1	9	2	5
7S 250W	5	5	.1	6	2	5
7S 225W	4	1	.1	7	2	5
7S 200W	7	9	.4	6	2	5
7S 175W	5	4	.1	2	2	5
7S 150W	7	3	.1	4	2	5
7S 125W	25	4	.1	11	2	5
7S 100W	5	5	.1	4	2	5
7S 75W	10	6	.1	2	2	5
7S 50W	6	1	.1	4	2	5
7S 25W	18	7	.2	6	2	5
7S 0E	8	3	.2	8	3	5
7S 25E	18	5	.3	11	3	5
STD S-1/AU-0.5	125	118	34.4	130	86	500

## RIO ALGOM PROJECT # 8808

PAGE 13

SAMPLE#	CU PPM	PB PPM	AG PPM	AS PPM	SB PPM	AU* PPB
7S 50E	11	4	.2	3.2	4	530
7S 75E	10	6	.1	2.2	2	530
7S 100E	4	4	.1	2.2	2	530
7S 125E	7	4	.1	2.2	2	530
7S 150E	7	6	.1	2.2	2	530
7S 175E	8	7	.1	2.2	2	530
7S 200E	7	11	.1	2.2	2	530
7S 225E	6	8	.1	2.2	2	530
7S 250E	6	4	.1	2.2	2	530
7S 275E	4	3	.1	2.2	2	530
7S 300E	5	6	.1	2.2	2	530
7S 325E	4	5	.1	2.2	2	530
7S 350E	15	7	.1	2.2	2	530
7S 375E	9	6	.1	2.2	2	530
7S 400E	5	8	.1	2.2	2	530
7S 425E	6	7	.1	2.2	2	530
7S 450E	6	7	.1	2.2	2	530
7S 475E	5	5	.1	2.2	2	530
7S 500E	14	5	.1	2.2	2	530
8S 700W	15	18	.1	2.2	2	530
8S 650W	4	9	.1	2.2	2	530
8S 625W	7	10	.1	2.2	2	530
8S 600W	8	9	.1	2.2	2	530
8S 575W	8	9	.1	2.2	2	530
8S 550W	14	11	.1	2.2	2	530
8S 525W	5	5	.1	2.2	2	530
8S 500W	6	5	.1	2.2	2	530
8S 475W	6	5	.1	2.2	2	530
8S 450W	6	4	.1	2.2	2	530
8S 425W	11	7	.1	2.2	2	530
8S 400W	5	5	.1	2.2	2	530
8S 375W	8	5	.1	2.2	2	530
8S 350W	6	5	.1	2.2	2	530
8S 325W	6	4	.1	2.2	2	530
8S 300W	6	7	.1	2.2	2	530
8S 275W	8	7	.1	2	2	530
8S 250W	10	8	.1	2	2	530
STD S-1/AU-0.5	126	119	32.1	143	81	530

## RIO ALGOM PROJECT # 8808 FILE # 84-1583

PAGE 14

SAMPLE#	CU PPM	PB PPM	AG PPM	AS PPM	SB PPM	AU* PPB
8S 225W	6	6	.4	6	2	5
8S 200W	4	3	.1	5	2	5
8S 175W	4	3	.1	4	2	5
8S 150W	4	3	.1	4	2	5
8S 125W	12	7	.1	3	2	5
8S 100W	6	6	.2	5	2	5
8S 75W	18	9	.2	2	2	5
8S 50W	9	5	.1	10	2	5
8S 25W	7	6	.1	8	2	5
8S 0E	10	7	.1	7	2	5
8S 25E	6	1	.1	2	2	5
8S 50E	5	4	.1	2	2	5
8S 75E	5	2	.1	4	2	5
8S 100E	5	1	.1	7	2	5
8S 125E	9	8	.1	4	2	5
8S 150E	6	7	.1	6	2	5
8S 175E	3	3	.1	4	2	5
8S 200E	5	1	.1	3	2	5
8S 225E	6	4	.1	5	2	5
8S 250E	16	4	.1	5	2	5
8S 275E	5	2	.1	2	2	5
8S 300E	6	2	.1	2	2	5
8S 325E	27	10	.1	10	2	5
8S 350E	10	2	.1	8	2	5
8S 375E	7	3	.1	5	2	5
8S 400E	8	4	.3	10	2	5
8S 425E	5	3	.1	7	2	5
8S 450E	6	3	.1	8	2	5
8S 475E	6	7	.1	6	2	5
8S 500E	3	2	.1	7	2	5
9S 700W	7	6	.1	8	2	5
9S 675W	8	1	.1	8	2	5
9S 650W	8	2	.1	8	2	5
9S 625W	7	2	.1	5	2	5
9S 600W	6	1	.1	8	2	5
9S 575W	11	6	.1	10	2	5
9S 550W	12	5	.1	6	2	5
STD S-1/AU-0.5	124	117	33.4	124	81	520

## RIO ALGOM PROJECT # 8808

FILE # 84-1583

PAGE 15

SAMPLE#	CU PPM	PB PPM	AG PPM	AS PPM	SB PPM	AU* PPB
9S 525W	9	8	.3	8	2	5
9S 500W	8	7	.1	5	2	5
9S 475W	9	6	.1	5	2	5
9S 450W	8	7	.1	5	2	5
9S 425W	7	4	.1	5	2	5
9S 400W	9	8	.1	4	2	5
9S 375W	8	7	.1	2	2	5
9S 350W	8	8	.1	2	2	5
9S 325W	11	6	.1	2	2	5
9S 300W	8	6	.1	2	2	5
9S 275W	8	7	.1	4	2	5
9S 250W	12	7	.1	4	2	5
9S 225W	9	8	.1	4	2	5
9S 200W	9	7	.1	4	2	5
9S 175W	11	6	.1	5	2	5
9S 150W	8	9	.1	3	2	5
9S 125W	6	7	.1	3	2	5
9S 100W	18	10	.1	3	2	5
9S 75W	7	4	.1	3	2	5
9S 50W	9	8	.1	4	2	5
9S 25W	4	5	.1	2	2	5
9S 0E	7	3	.1	4	2	5
9S 25E	8	5	.1	4	2	5
9S 50E	7	4	.1	2	2	5
9S 75E	8	3	.1	3	2	5
9S 100E	22	15	.1	4	2	5
9S 125E	8	6	.1	4	2	5
9S 150E	6	5	.1	2	2	5
9S 175E	7	3	.1	2	2	5
9S 200E	6	4	.1	2	2	5
9S 225E	11	6	.1	4	2	5
9S 250E	11	2	.1	2	2	5
9S 275E	15	6	.1	2	2	5
9S 300E	27	10	.1	3	2	5
9S 325E	20	6	.1	4	2	5
9S 350E	10	3	.1	2	2	5
9S 375E	7	7	.1	4	2	5
STD S-1/AU-0.5	123	116	34.4	124	80	510

RIO ALGOM

PROJECT # 8808

FILE # 84-1583

PAGE 16

## SAMPLE#

## CU

## PB

## AG

## AS

## SB

## AU\*

## PPM

## PPM

## PPM

## PPM

## PPM

## PPB

9S 400E

14

10

.1

4

2

5

9S 425E

6

4

.1

2

5

9S 450E

8

6

.1

2

5

9S 475E

7

5

.1

2

5

9S 500E

6

7

.1

2

5

10S 700W

7

5

.1

2

5

10S 675W

5

4

.1

2

5

10S 650W

10

11

.1

2

5

10S 625W

7

6

.1

2

5

10S 600W

7

8

.1

2

5

10S 575W

5

8

.1

2

5

10S 550W

9

4

.1

2

5

10S 525W

10

5

.1

2

5

10S 500W

6

4

.1

2

5

10S 475W

12

6

.1

2

5

10S 450W

7

8

.1

2

5

10S 425W

9

4

.1

2

5

10S 400W

7

5

.1

2

5

10S 375W

7

5

.2

2

5

10S 350W

8

9

.1

2

5

10S 325W

4

1

.1

2

5

10S 300W

13

5

.2

2

5

10S 275W

6

6

.1

2

5

10S 250W

11

4

.3

2

5

10S 225W

11

7

.3

2

5

10S 200W

9

9

.1

2

5

10S 175W

9

6

.1

2

5

10S 150W

6

8

.1

2

5

10S 125W

7

7

.1

2

5

10S 100W

5

4

.1

2

5

10S 75W

5

2

.1

2

5

10S 50W

4

4

.1

2

5

10S 25W

6

5

.1

2

5

10S 0E

7

6

.1

2

5

10S 25E

5

6

.1

2

5

10S 50E

13

18

.1

2

5

10S 75E

7

4

.1

2

5

STD S-1/AU-0.5

125

118

34.0

77

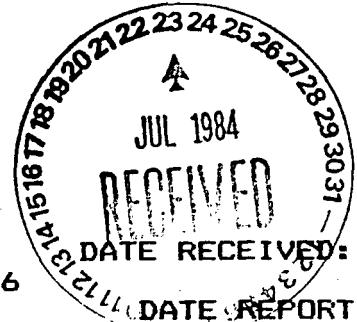
510

RIO ALGOM PROJECT # 8808 FILE # 84-1583

PAGE 17

SAMPLE#	CU PPM	PB PPM	AG PPM	AS PPM	SB PPM	AU* PPB
10S 100E	6	7	.2	4	2	5
10S 125E	10	9	.1	3	2	5
10S 150E	4	2	.1	6	2	5
10S 175E	7	5	.1	5	2	5
10S 200E	31	9	.1	2	2	5
10S 225E	12	7	.1	3	2	15
10S 250E	5	4	.1	4	2	5
10S 275E	5	4	.1	2	2	5
10S 300E	14	6	.1	5	2	65
10S 325E	30	8	.1	5	2	5
10S 350E	24	10	.1	3	2	5
10S 375E	16	7	.1	3	2	5
10S 400E	6	5	.1	5	2	5
10S 425E	6	5	.1	4	2	5
10S 450E	5	5	.1	3	2	5
10S 475E	4	3	.1	4	2	5
10S 500E	5	5	.1	4	2	5
STD S-1/AU-0.5	124	117	31.7	125	80	510

ACME ANALYTICAL LABORATORIES LTD.  
852 E.HASTINGS ST.VANCOUVER B.C. V6A 1R6  
PHONE 253-3158 DATA LINE 251-1011



DATE RECEIVED: JULY 17 1984

DATE REPORT MAILED: July 20 1984

## GEOCHEMICAL ICP ANALYSIS

.500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-3 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.  
THIS LEACH IS PARTIAL FOR MN.FE.CA.P.CR.M6.BA.TI.B.AL.NA.K.W.SI.ZR.CE.SN.Y.NB AND TA. AU DETECTION LIMIT BY ICP IS 3 PPM.  
- SAMPLE TYPE: SOIL AU\* ANALYSIS BY AA FROM 10 GRAM SAMPLE.

ASSAYER: *D. Ley* DEAN TOYE, CERTIFIED B.C. ASSAYER

RIO ALGOM PROJECT # 8808 FILE # 84-1596

PAGE 1

SAMPLE#	CU PPM	PB PPM	AG PPM	AS PPM	SB PPM	AU* PPB
1ON 500W	14	10	.2	5	2	5
1ON 475W	15	9	.1	7	2	2
1ON 450W	9	9	.1	8	2	2
1ON 425W	13	8	.1	7	2	2
1ON 400W	14	9	.2	7	2	2
1ON 375W	12	9	.1	8	2	2
1ON 350W	14	13	.3	5	2	2
1ON 325W	12	11	.2	6	2	2
1ON 300W	13	4	.2	6	2	2
1ON 275W	13	7	.1	5	2	2
1ON 250W	12	8	.1	5	2	2
1ON 225W	13	11	.1	5	2	2
1ON 200W	10	5	.1	6	2	2
1ON 175W	10	9	.1	6	2	2
1ON 150W	16	12	.2	6	2	2
1ON 125W	8	7	.2	5	2	2
1ON 100W	11	9	.2	4	2	2
1ON 75W	12	7	.2	4	2	2
1ON 50W	5	1	.2	4	2	2
1ON 25W	14	21	.2	4	2	2
1ON 0W	17	23	.1	2	4	4
9N 500W	9	11	.1	4	4	4
9N 475W	8	4	.1	4	4	4
9N 450W	11	3	.1	6	4	4
9N 425W	10	6	.1	9	4	4
9N 400W	9	6	.1	4	4	4
9N 375W	9	1	.1	4	4	4
9N 350W	9	6	.1	4	4	4
9N 325W	7	5	.1	4	4	4
9N 300W	13	6	.1	4	4	4
9N 275W	13	8	.2	4	4	4
9N 250W	7	7	.2	4	4	4
9N 225W	8	8	.4	7	4	4
9N 200W	9	7	.4	7	4	4
9N 175W	8	6	.2	7	4	4
9N 150W	12	5	.4	6	4	4
9N 125W	4	4	.4	2	4	4
STD S-1/AU-0.5	125	118	33.9	122	88	530

## RIO ALGOM PROJECT # 8808 FILE # 84-1596

PAGE 2

SAMPLE#	CU PPM	PB PPM	AG PPM	AS PPM	SB PPM	AU* PPB
9N 100W	6	7	.1	2	2	5
9N 75W	4	2	.1	2	2	20
9N 50W	5	2	.1	3	2	5
9N 25W	5	12	.1	4	2	5
9N 0W	5	8	.1	6	2	5
8N 500W	13	12	.1	2	2	5
8N 475W	11	14	.1	8	2	5
8N 450W	10	12	.1	6	2	5
8N 425W	14	11	.1	6	2	5
8N 400W	9	10	.1	6	2	5
8N 375W	9	8	.1	6	2	5
8N 350W	10	16	.1	10	2	5
8N 325W	14	12	.1	8	2	5
8N 300W	9	14	.2	6	2	5
8N 275W	8	8	.1	7	2	5
8N 250W	11	14	.3	6	2	5
8N 225W	15	12	.1	8	2	5
8N 200W	9	11	.2	6	2	5
8N 175W	9	6	.1	6	2	5
8N 100W	3	5	.1	2	2	5
8N 75W	33	10	.1	2	2	5
8N 50W	5	4	.1	2	2	5
8N 25W	5	3	.1	3	2	5
8N 0W	19	11	.2	2	2	5
7N 500W	11	10	.2	6	2	5
7N 475W	12	9	.2	7	2	5
7N 450W	12	12	.1	7	2	5
7N 425W	8	12	.2	7	2	5
7N 400W	9	10	.2	6	2	5
7N 375W	12	14	.1	6	2	5
7N 350W	12	11	.2	5	2	5
7N 325W	10	8	.1	7	2	5
7N 300W	10	10	.1	5	2	5
7N 275W	10	7	.1	6	2	5
7N 250W	7	10	.1	2	2	5
7N 225W	4	4	.1	2	3	5
7N 175W	5	4	.1	2	2	5
STD S-1/AU-0.5	124	117	36.5	133	92	510

RIO ALGOM

PROJECT # 8808

FILE # 84-1596

PAGE 3

SAMPLE#	CU PPM	PB PPM	AG PPM	AS PPM	SB PPM	AU* PPB
7N 150W	12	10	.2	12	2	5
7N 125W	5	8	.1	5	2	5
7N 75W	6	2	.1	9	2	5
7N 50W	9	8	.2	8	2	5
7N 0W	8	4	.1	7	2	5
6N 500W	13	7	.1	8	2	5
6N 475W	10	8	.1	11	2	5
6N 450W	8	9	.1	7	2	5
6N 425W	8	9	.1	5	2	5
6N 400W	12	11	.1	8	2	5
6N 375W	6	9	.1	6	2	5
6N 350W	11	11	.1	7	2	5
6N 325W	6	2	.1	2	2	5
6N 300W	5	3	.1	5	2	5
6N 250W	8	7	.1	9	2	5
6N 225W	9	14	.2	7	2	5
6N 200W	6	2	.3	6	2	5
6N 125W	15	4	.3	5	2	10
6N 100W	7	7	.3	4	2	5
6N 75W	4	5	.1	5	2	5
6N 50W	5	4	.2	4	2	5
6N 25W	11	24	.2	2	2	5
6N 0W	5	7	.2	4	2	5
5N 375W	7	7	.1	4	2	5
5N 350W	3	2	.1	4	2	5
5N 325W	10	8	.2	7	2	5
5N 300W	12	5	.2	8	2	5
5N 275W	6	8	.3	2	2	10
5N 250W	3	6	.4	3	2	5
5N 225W	4	3	.1	3	2	5
5N 200W	3	2	.1	3	2	5
5N 175W	3	2	.1	2	2	480
5N 150W	7	1	.1	2	2	20
5N 125W	6	3	.1	3	2	5
5N 100W	5	4	.1	5	2	10
5N 75W	7	3	.2	3	2	5
5N 50W	5	8	.1	5	2	5
STD S-1/AU-0.5	121	118	36.0	134	86	520

RIO ALGOM

PROJECT # 8808

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PAGE 4

SAMPLE#	CU PPM	PB PPM	AG PPM	AS PPM	SB PPM	AUX PPB
5N 25W	6	1	.1			
5N 0W	11	5.5	.1			
4.5N 425W	5	3.5	.1			
4.5N 400W	7	3.5	.1			
4.5N 375W	4	1	.1			
4.5N 350W	3	2	.1			
4.5N 325W	8	2	.1			
4.5N 300W	6	4	.1			
4.5N 275W	6	1	.1	4		
4.5N 250W	7	1	.2			
4.5N 225W	7	1	.1	2		
4.5N 200W	5	2	.1			
4.5N 175W	13	7	.1			
4.5N 150W	5	6	.2			
4.5N 125W	4	4	.1			
4.5N 100W	5	6	.1			
4.5N 75W	9	7	.2			
4.5N 50W	6	3	.3			
4.5N 25W	3	3	.2			
4.5N 0W	5	4	.2			
4N 450W	5	2	.1			10
4N 425W	4	1	.2			
4N 400W	4	2	.1			
4N 375W	6	1	.1			
4N 350W	21	2	.1			
4N 325W	5	5	.1			
4N 300W	9	6	.1	4		
4N 275W	5	5	.1			
4N 250W	6	7	.1			40
4N 225W	18	3	.2			
4N 200W	7	1	.2			
4N 175W	7	5	.2			245
4N 150W	4	1	.1			
4N 125W	3	4	.1			10
4N 100W	5	5	.2			
4N 75W	7	5	.3	4		
4N 50W	5	5	.2	4		
STD S-1/AU-0.5	123	116	35.1	126	87	520

## RIO ALGOM PROJECT # 8808 FILE # 84-1596

PAGE 5

SAMPLE#	CU PPM	PB PPM	AG PPM	AS PPM	SB PPM	AU* PPB
4N 25W	5	3	.1	2	2	15
4N 0W	7	1	.1	2	2	5
3.5N 450W	7	7	.1	2	2	5
3.5N 425W	5	1	.1	2	2	5
3.5N 400W	2	5	.1	2	2	5
3.5N 375W	13	3	.1	2	2	5
3.5N 350W	13	4	.1	2	2	5
3.5N 325W	8	3	.2	5	2	5
3.5N 300W	7	7	.1	2	2	5
3.5N 275W	7	8	.1	2	2	5
3.5N 250W	5	2	.1	2	2	5
3.5N 200W	7	6	.2	3	2	5
3.5N 175W	6	6	.2	7	2	5
3.5N 150W	7	7	.2	9	2	5
3.5N 125W	12	12	.5	18	2	5
3.5N 100W	7	1	.2	2	2	5
3.5N 75W	9	5	.2	5	2	25
3.5N 50W	8	5	.1	3	2	5
3.5N 25W	13	7	.3	3	2	5
3.5N 0W	7	4	.1	4	2	5
3N 475W	6	5	.1	2	2	5
3N 450W	5	2	.1	2	2	5
3N 425W	7	3	.1	2	2	5
3N 400W	5	6	.1	2	2	5
3N 375W	14	5	.1	4	2	5
3N 350W	17	6	.2	2	2	5
3N 325W	9	12	.2	3	2	5
3N 300W	9	8	.1	3	2	45
3N 275W	16	5	.2	5	2	5
3N 250W	5	7	.1	5	2	5
3N 225W	9	1	.1	2	2	5
3N 200W	5	5	.2	4	2	5
3N 175W	5	5	.2	4	2	5
3N 150W	8	10	.3	11	2	5
3N 25W	10	10	.5	13	2	30
3N 0W	6	6	.3	5	2	5
2.5N 450W	6	3	.2	3	2	5
STD S-1/AU-0.5	125	118	35.8	130	89	510

## RIO ALGOM PROJECT # 8808

FILE # 84-1596

PAGE 6

SAMPLE#	CU PPM	PB PPM	AG PPM	AS PPM	SB PPM	AU* PPB
2.5N 425W	18	7	.1	2	2	5
2.5N 400W	19	4	.1	2	2	5
2.5N 375W	5	5	.1	2	2	5
2.5N 350W	6	11	.1	2	2	5
2.5N 325W	8	5	.1	2	2	5
2.5N 300W	7	6	.1	2	2	5
2.5N 275W	8	5	.1	2	2	5
2.5N 250W	7	8	.1	2	2	5
2.5N 225W	9	5	.1	4	2	5
2.5N 200W	11	6	.2	10	2	20
2.5N 175W	13	19	.3	16	2	5
2.5N 150W	11	13	.1	12	2	5
2.5N 125W	9	10	.3	15	2	5
2.5N 100W	8	9	.2	7	2	10
2.5N 75W	7	8	.1	2	2	5
2.5N 50W	9	13	.2	7	2	5
2.5N 0W	13	12	.2	9	2	15
2N 475W	6	3	.1	2	2	5
2N 450W	6	6	.1	2	2	5
2N 425W	4	5	.1	2	2	5
2N 400W	6	2	.1	2	2	5
2N 375W	6	9	.1	2	2	5
2N 350W	6	5	.1	2	2	5
2N 325W	19	8	.1	7	2	5
2N 300W	26	41	.2	26	2	5
2N 275W	8	6	.1	9	2	5
2N 250W	9	12	.1	2	2	5
2N 225W	6	6	.1	2	2	5
2N 200W	4	7	.1	2	2	5
2N 175W	11	9	.2	3	2	5
2N 150W	24	6	.2	8	2	10
2N 125W	22	11	.2	6	2	5
2N 100W	6	10	.2	2	2	5
2N 75W	14	20	.3	2	2	40
2N 50W	9	9	.2	4	2	5
2N 25W	8	6	.3	4	2	5
2N 0W	6	7	.2	2	2	5
STD S-1/AU-0.5	124	117	34.2	122	84	510

RIO ALGOM PROJECT # 8808 FILE # 84-1596

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SAMPLE#	CU PPM	PB PPM	AG PPM	AS PPM	SB PPM	AU* PPB
1.5N 450W	6	2	.1	2	2	5
1.5N 425W	10	1	.1	2	2	5
1.5N 400W	8	9	.1	5	2	5
1.5N 375W	5	1	.1	2	2	5
1.5N 350W	7	1	.1	18	2	5
1.5N 325W	12	6	.3	34	2	5
1.5N 300W	7	2	.1	10	2	5
1.5N 275W	6	4	.1	7	2	5
1.5N 250W	7	2	.1	6	2	5
1.5N 225W	6	1	.1	4	2	15
1.5N 200W	6	1	.1	6	2	5
1.5N 175W	7	14	.2	7	2	5
1.5N 150W	4	5	.1	6	2	5
1.5N 125W	9	2	.1	6	2	5
1.5N 100W	6	4	.1	6	2	15
1.5N 75W	8	1	.1	11	2	60
1.5N 50W	10	3	.1	11	2	115
1.5N 25W	23	21	.7	21	2	10
1.5N 0W	7	2	.1	4	2	5
1N 450W	4	1	.1	2	2	5
1N 425W	4	1	.1	2	2	5
1N 400W	8	3	.1	9	2	5
1N 375W	5	2	.1	2	2	5
1N 350W	7	1	.2	14	2	205
1N 325W	11	11	.1	30	2	5
1N 300W	12	5	.1	35	2	5
1N 275W	5	2	.1	8	2	5
1N 250W	9	14	.1	23	2	5
1N 225W	7	1	.1	8	2	5
1N 200W	6	1	.1	5	2	5
1N 175W	6	1	.1	5	2	5
1N 150W	5	4	.1	5	2	5
1N 125W	6	1	.1	6	2	5
1N 100W	5	1	.1	4	2	5
1N 75W	6	1	.1	3	2	5
1N 50W	7	4	.2	7	2	5
1N 25W	7	1	.1	6	2	5

STD-S-1/AU=0.5 123=116 34.7 133 83 520

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SAMPLE#	CU PPM	PB PPM	AG PPM	AS PPM	SB PPM	AU* PPB
1N OW	7	5	.1	2	2	5
0.5N 450W	6	6	.1	2	2	5
0.5N 425W	4	4	.1	2	2	5
0.5N 400W	5	6	.1	2	2	5
0.5N 375W	5	1	.1	6	2	5
0.5N 350W	11	12	.1	74	2	5
0.5N 325W	14	13	.1	83	2	5
0.5N 300W	20	18	.4	78	2	5
0.5N 275W	6	7	.1	3	2	5
0.5N 250W	4	2	.1	10	2	5
0.5N 225W	8	9	.1	11	2	5
0.5N 200W	6	4	.1	5	2	5
0.5N 175W	6	8	.3	10	2	10
0.5N 150W	7	10	.2	10	2	5
0.5N 125W	7	10	.2	5	2	5
0.5N 100W	5	9	.2	2	2	5
0.5N 75W	6	5	.1	2	2	5
0.5N 50W	4	7	.1	2	2	5
0.5N 25W	4	8	.1	2	2	5
0.5N OW	5	6	.1	2	2	5
STD S-1/AU-0.5	124	117	34.1	123	87	510

ACME ANALYTICAL LABORATORIES LTD.

852 E.HASTINGS ST.VANCOUVER B.C. V6A 1R6

PHONE 253-3158

DATA LINE 251-1011

## GEOCHEMICAL ICP ANALYSIS

.500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-3 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.  
 THIS LEACH IS PARTIAL FOR Mn,Fe,Ca,P,Cr,Mg,Ba,Ti,B,Al,Na,K,W,Si,Zr,Ce,Sn,Y,Nb AND Ta. Au DETECTION LIMIT BY ICP IS 3 PPM.  
 - SAMPLE TYPE: SOIL AND ROCK Au ANALYSIS BY AA FROM 10 GRAM SAMPLE.

DATE RECEIVED: AUG 23 1984 DATE REPORT MAILED: Aug 9/84 ASSAYER: D. Toye DEAN TOYE. CERTIFIED B.C. ASSAYER

RIO ALGOM PROJECT # 8808 FILE # 84-1915

PAGE 1

SAMPLE#	NO PPM	Cu PPM	Pb PPM	Zn PPM	Ag PPM	Ni PPM	Co PPM	Mn PPM	Fe %	As PPM	U PPM	Au PPM	Th PPM	SR PPM	CD PPM	SB PPM	BI PPM	V PPM	Ca %	P %	La PPM	Cr PPM	Mg %	Ba PPM	Ti %	B PPM	Al %	Na %	K %	W PPM	Au# PPB
5+50N 5+00W	1	13	7	38	.2	46	5	1434	1.94	4	2	ND	6	14	1	2	3	31	.11	.19	11	18	.29	111	.12	5	3.21	.03	.06	2	5
5+50N 4+75W	1	10	8	51	.1	44	4	179	1.83	8	2	ND	4	12	1	2	2	30	.10	.15	9	22	.29	116	.11	3	2.53	.03	.05	2	5
5+50N 4+50W	1	9	5	51	.1	45	4	1597	1.97	3	2	ND	3	13	1	2	2	33	.11	.16	8	27	.25	113	.10	2	2.29	.02	.05	2	5
5+50N 4+25W	1	10	6	49	.1	61	5	1279	2.31	4	2	ND	4	19	1	2	2	39	.18	.23	11	30	.39	114	.10	2	2.25	.02	.05	2	5
5+50N 4+00W	1	6	2	22	.1	28	3	1127	1.31	3	2	ND	2	26	1	2	2	22	.19	.08	11	30	.26	137	.05	2	1.02	.02	.04	2	5
5+50N 3+75W	1	5	1	20	.1	26	3	1177	1.30	2	2	ND	6	36	1	2	2	24	.33	.13	17	26	.34	110	.04	2	1.88	.01	.05	2	5
5+50N 3+50W	1	7	1	22	.1	33	3	156	1.41	3	2	ND	5	39	1	2	2	25	.35	.12	26	31	.39	131	.05	2	1.14	.01	.04	2	5
5+50N 3+25W	1	5	1	18	.1	25	3	1166	1.53	2	2	ND	4	27	1	2	2	28	.27	.10	18	26	.29	94	.04	2	1.90	.01	.03	2	5
5+50N 3+00W	1	13	22	57	.1	21	6	1307	2.47	6	2	ND	11	24	1	2	2	46	.21	.11	35	46	.63	81	.02	2	2.20	.02	.07	2	5
5+50N 2+75W	3	10	15	47	.3	14	5	1422	2.25	7	2	ND	7	13	1	2	2	40	.31	.10	27	33	.45	103	.02	3	1.73	.01	.06	2	5
5+50N 2+50W	1	7	6	89	.8	11	3	325	1.63	8	2	ND	5	12	1	2	2	29	.11	.16	14	16	.21	78	.06	2	1.53	.01	.04	2	5
5+50N 2+25W	1	6	5	28	.1	11	3	141	1.67	4	2	ND	5	14	1	2	2	27	.15	.20	12	16	.21	97	.05	2	1.47	.01	.04	2	5
5+50N 2+00W	1	23	35	80	1.5	31	10	1907	3.31	4	2	ND	9	44	1	2	2	60	.74	.21	56	95	1.30	90	.05	2	2.36	.01	.12	2	615
5+50N 1+75W	1	7	14	95	.2	14	5	1840	2.12	7	2	ND	2	16	1	2	2	39	.20	.13	14	29	.35	98	.05	2	1.68	.01	.06	2	5
5+50N 1+25W	1	7	1	63	.1	13	3	1480	1.50	3	2	ND	4	13	1	2	2	26	.17	.16	12	15	.21	91	.05	2	1.33	.01	.04	2	5
5+50N 1+00W	1	6	4	21	.1	15	2	107	1.16	3	2	ND	7	41	1	2	2	18	.24	.03	11	15	.26	125	.08	2	1.36	.02	.06	2	5
5+50N 0+75W	1	9	4	29	.1	34	3	141	1.48	3	2	ND	4	42	1	2	2	25	.24	.04	15	17	.32	149	.06	2	1.46	.02	.05	2	5
5+50N 0+50W	1	8	3	64	.1	20	4	1554	2.13	3	2	ND	3	15	1	2	2	38	.18	.28	11	20	.27	79	.06	2	1.55	.01	.04	2	5
5+50N 0+25W	1	7	5	38	.1	18	4	218	1.96	2	2	ND	5	16	1	2	2	32	.15	.25	11	20	.26	116	.06	2	1.42	.01	.04	2	5
5+50N 0+00W	1	7	2	33	.1	18	4	168	2.05	2	2	ND	4	19	1	2	2	35	.20	.24	12	22	.27	98	.06	2	1.47	.01	.05	2	5
3N 125W	4	11	9	60	.1	18	6	718	2.37	6	2	ND	3	40	1	2	2	33	.41	.11	30	37	.75	126	.05	3	1.94	.01	.18	2	5
3N 100W	3	7	3	21	.1	9	3	701	1.46	3	2	ND	3	64	1	2	2	23	.63	.03	13	15	.26	90	.05	2	1.16	.02	.07	2	5
3N 75W	2	4	1	21	.1	11	3	172	1.50	3	2	ND	4	16	1	2	2	25	.15	.04	11	16	.24	56	.06	2	1.07	.01	.04	2	5
0.55 75W	2	3	2	36	.1	10	3	291	1.45	9	2	ND	4	14	1	2	2	25	.19	.18	16	16	.23	75	.05	2	1.03	.01	.04	2	5
6-1701-R	2	18	7	66	.1	37	10	705	3.78	2	2	ND	24	137	1	3	2	52	1.95	.21	79	84	1.99	50	.01	2	1.90	.02	.11	2	5
6-1702-R	1	19	12	73	.2	41	12	719	4.32	2	2	ND	19	198	1	2	2	82	2.81	.25	85	106	2.16	36	.01	2	2.14	.02	.08	2	5
6-1703-R	6	24	9	72	.7	31	8	319	3.77	28	2	ND	9	31	1	2	2	36	.35	.22	48	69	.93	52	.01	2	1.44	.01	.22	2	15
6-1704-R	1	17	8	69	.2	33	11	808	4.10	2	2	ND	19	123	1	2	2	70	1.81	.23	68	82	2.06	70	.02	2	2.09	.03	.13	2	5
6-1705-R	1	18	16	71	.2	35	10	743	3.96	2	2	ND	21	45	1	2	2	89	1.22	.23	75	89	1.91	40	.26	3	2.01	.03	.10	2	5
6-1706-R	4	26	15	50	5.4	23	7	380	3.23	59	2	ND	12	16	1	2	2	49	.24	.18	36	58	1.26	38	.01	2	1.43	.01	.11	2	255
6-1707-R	2	17	6	78	.2	42	11	826	4.14	3	2	ND	15	80	1	2	2	89	1.57	.27	64	114	2.04	78	.26	2	1.90	.03	.10	2	5
6-1708-R	1	23	10	28	.2	14	13	931	4.71	4	2	ND	19	290	1	2	2	80	2.74	.16	129	30	1.97	74	.02	2	1.81	.02	.07	2	5
STD 5-1/AU-0.5	86	122	114	182	33.4	150	80	472	3.17	116	101	33	162	124	86	83	90	57	.56	.12	124	63	.58	120	.07	174	1.44	.20	.19	61	510

**APPENDIX C**  
**CHIP SAMPLING ASSAYS**  
**AND GEOCHEMICAL RESULTS**

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS, VANCOUVER B.C. PH: 253-3158 TELEX: 04-53124

ICP GEOCHEMICAL ANALYSIS

A .500 GRAM SAMPLE IS DIGESTED WITH 3 ML OF 3:1:3 HCl TO HNO<sub>3</sub> TO H<sub>2</sub>O AT 90 DEG.C. FOR 1 HOUR. THE SAMPLE IS DILUTED TO 10 MLS WITH WATER.  
THIS LEACH IS PARTIAL FOR: Ca,P,Mg,Al,Ti,La,Na,K,W,Ba,Si,Sr,Cr AND B. Au DETECTION 3 ppb.  
AU# ANALYSIS FROM 10 GRAM FA+AA. SAMPLE TYPE - ROCK SILT & SOIL

DATE RECEIVED JULY 24 1984 DATE REPORTS MAILED July 29 1984 ASSAYER *D. Toye* DEAN TOYE, CERTIFIED B.C. ASSAYER

SAMPLE #	RIO ALGOM												PROJECT # 8808 FILE # 84-1748												PAGE # 1						
	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	D	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	M
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppb
6-1592	4	20	15	72	1.1	21	8	525	2.95	18	2	ND	16	55	1	3	2	38	.62	.22	76	38	1.14	116	.01	2	1.71	.01	.15	3	37
6-1593	24	17	22	67	1.9	22	5	539	3.38	165	1	ND	12	28	1	7	2	44	.43	.21	59	71	1.66	36	.01	2	1.96	.01	.15	4	240
6-1594	13	19	18	61	1.1	27	6	633	3.01	13	2	ND	11	52	1	2	2	33	.61	.34	52	45	.62	70	.01	2	1.47	.01	.20	2	63
6-1595	13	15	15	74	.6	20	5	545	3.28	169	2	ND	6	21	1	6	2	44	.25	.23	26	77	1.40	52	.01	2	1.84	.01	.18	3	7
6-1596	16	20	9	61	.8	15	5	423	3.18	117	2	ND	10	23	1	6	2	62	.28	.24	28	49	1.61	49	.01	2	1.73	.01	.16	2	745
6-1597	3	28	23	66	.8	16	5	436	3.61	272	2	ND	8	30	1	7	2	48	.26	.24	34	48	1.31	43	.01	2	1.75	.01	.17	2	57
6-1598	1	19	42	57	1.0	17	8	680	2.82	7	2	ND	5	259	1	8	6	43	5.15	.18	37	30	1.20	45	.12	2	1.49	.01	.13	2	13
6-1599	1	26	9	81	.1	28	13	717	3.98	10	2	ND	10	47	1	3	3	73	1.15	.29	61	61	1.94	52	.26	2	2.46	.01	.16	3	2
6-1600	1	19	16	60	.3	19	8	365	2.92	83	2	ND	7	22	1	4	2	37	.27	.20	48	43	1.11	38	.01	2	1.45	.01	.14	2	56
6-1651	6	9	13	40	.4	9	4	247	1.41	296	2	ND	10	23	1	4	2	11	.22	.12	45	15	.41	47	.01	2	.62	.01	.15	2	325
6-1652	2	14	64	57	.7	8	4	210	2.17	473	2	ND	14	23	1	7	2	24	.21	.16	59	21	.60	48	.01	2	.95	.01	.22	3	30
6-1653	5	11	17	46	1.4	6	1	143	2.13	459	2	ND	18	21	1	6	2	23	.20	.16	55	19	.50	52	.04	2	.85	.01	.26	4	52
6-1655	4	20	15	53	.3	8	2	178	3.95	1463	2	ND	10	61	1	12	2	83	.32	.31	49	102	.79	59	.12	2	1.34	.01	.24	2	28
6-1656	4	12	13	46	.3	8	3	154	2.46	267	2	ND	25	20	1	3	3	22	.32	.17	67	24	.48	77	.17	2	1.02	.01	.24	3	23
6-1658	1	17	6	37	.1	2	3	358	1.55	15	2	ND	5	35	1	2	2	19	.93	.07	22	1	.37	396	.01	2	.64	.02	.15	3	1
6-1654-9L	1	7	5	35	.3	20	6	871	2.18	35	2	ND	5	36	1	2	2	33	.32	.12	25	18	.67	105	.06	2	.86	.02	.11	3	115
6-1657-6L	1	15	6	26	.2	38	5	501	1.98	7	7	ND	6	141	1	2	2	29	.77	.13	42	22	.45	253	.05	2	1.85	.01	.12	2	1
6-1659-9	1	8	5	34	.2	12	3	183	1.46	3	2	ND	5	19	1	2	2	25	.16	.18	13	9	.27	126	.07	2	1.41	.01	.10	2	4
6-1660-9	1	5	1	21	.1	7	2	157	1.50	5	2	ND	6	21	1	2	2	33	.29	.11	17	12	.30	37	.07	2	.58	.01	.10	2	5
6-1661-6	2	7	5	22	.1	27	5	244	1.69	7	2	ND	8	32	1	2	3	29	.40	.13	33	29	.52	61	.05	2	.83	.01	.09	2	13
6-1662-9	19	22	15	37	.2	52	13	1128	3.23	23	2	ND	10	39	1	3	3	34	.50	.23	68	46	.75	41	.02	2	.76	.01	.07	3	48
STD S-1/FA-AU	92	126	121	187	37.3	159	84	519	3.16	135	103	39	177	129	99	91	101	59	.56	.14	145	63	.58	126	.08	177	1.47	.22	.23	70	54



Rocks



AUG 1984 ACME ANALYTICAL LABORATORIES LTD.

852 E.HASTINGS ST.VANCOUVER B.C. V6A 1R6

PHONE 253-3158

DATA LINE 251-1011

### GEOCHEMICAL ICP ANALYSIS

.500 GRAM SAMPLE IS DIGESTED WITH 3ML 3:1:3 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.  
THIS LEACH IS PARTIAL FOR MN.FE.CA.P.CR.MG.BA.TI.B.AL.NA.K.W.SI.ZR.CE.SN.Y.NB AND TA. AU DETECTION LIMIT BY ICP IS 3 PPM.

- SAMPLE TYPE: SOIL AND ROCK AU# ANALYSIS BY AA FROM 10 GRAM SAMPLE.

DATE RECEIVED: AUG 2 1984 DATE REPORT MAILED: Aug 4/84 ASSAYER: D. Toye DEAN TOYE. CERTIFIED B.C. ASSAYER

SAMPLE#	RIO ALGOM PROJECT # 8808 FILE # 84-1915																								PAGE	1					
	NO PPM	CU PPM	PB PPM	ZN PPM	AG PPM	NI PPM	CO PPM	MN PPM	FE %	AS PPM	U PPM	AU PPM	TH PPM	SR PPM	CD PPM	SB PPM	BI PPM	V PPM	CA %	P PPM	LA PPM	CR %	MG PPM	BA PPM	TI %	B PPM	AL %	NA PPM	K %	W PPM	AU# PPB
5+50N-5+00W	1	13	7	48	.2	46	5	434	1.94	4	2	ND	6	14	1	2	3	31	.11	.19	11	18	.29	111	.12	5+3.21	.03	.06	2	5	
5+50N-4+75W	1	10	8	51	.1	44	4	479	1.83	8	2	ND	4	12	1	2	2	30	.10	.15	9	22	.29	116	.11	3+2.53	.03	.05	2	5	
5+50N-4+50W	1	9	5	51	.1	45	4	597	1.97	3	2	ND	3	13	1	2	2	33	.11	.16	8	27	.25	113	.10	2+2.29	.02	.05	2	5	
5+50N-4+25W	1	10	6	49	.1	61	5	279	2.31	4	2	ND	4	19	1	2	2	39	.18	.23	11	30	.39	114	.10	2+2.25	.02	.05	2	5	
5+50N-4+00W	1	6	2	22	.1	28	3	127	1.31	3	2	ND	2	26	1	2	2	22	.19	.08	11	30	.26	137	.05	2+1.02	.02	.04	2	5	
5+50N-3+75W	1	5	1	20	.1	26	3	177	1.30	2	2	ND	6	36	1	2	2	24	.33	.13	17	26	.34	110	.04	2+ .88	.01	.05	2	5	
5+50N-3+50W	1	7	1	22	.1	33	3	156	1.41	3	2	ND	5	39	1	2	2	25	.35	.12	26	31	.39	131	.05	2+1.14	.01	.04	2	5	
5+50N-3+25W	1	5	1	18	.1	25	3	166	1.53	2	2	ND	4	27	1	2	2	28	.27	.10	18	26	.29	94	.04	2+ .90	.01	.03	2	5	
5+50N-3+00W	1	13	22	57	.1	21	6	307	2.47	6	2	ND	11	24	1	2	2	46	.21	.11	35	46	.63	81	.02	2+2.20	.02	.07	2	5	
5+50N-2+75W	3	10	15	47	.3	14	5	422	2.25	7	2	ND	7	13	1	2	2	40	.11	.10	27	33	.45	103	.02	3+1.73	.01	.06	2	5	
5+50N-2+50W	1	7	6	39	.8	11	3	125	1.63	8	2	ND	5	12	1	2	2	29	.11	.16	14	16	.21	78	.06	2+1.53	.01	.04	2	5	
5+50N-2+25W	1	6	5	28	.1	11	3	141	1.67	4	2	ND	5	14	1	2	2	27	.15	.20	12	16	.21	97	.05	2+1.47	.01	.04	2	5	
5+50N-2+00W	1	23	35	80	1.5	31	10	1907	3.31	4	2	ND	9	44	1	2	2	60	.74	.21	56	95	1.30	90	.05	2+2.36	.01	.12	2	615	
5+50N-1+75W	1	7	14	55	.2	14	5	840	2.12	7	2	ND	2	16	1	2	2	39	.20	.13	14	29	.35	98	.05	2+1.68	.01	.06	2	5	
5+50N-1+25W	1	7	1	33	.1	13	3	180	1.50	3	2	ND	4	13	1	2	2	26	.17	.16	12	15	.21	91	.05	2+1.33	.01	.04	2	5	
5+50N-1+00W	1	6	4	21	.1	15	2	107	1.16	3	2	ND	7	41	1	2	2	18	.24	.03	11	15	.26	125	.08	2+1.36	.02	.06	2	5	
5+50N-0+75W	1	9	4	29	.1	34	3	141	1.48	3	2	ND	4	42	1	2	2	25	.24	.04	15	17	.32	147	.06	2+1.46	.02	.05	2	5	
5+50N-0+50W	1	8	3	64	.1	20	4	554	2.13	3	2	ND	3	15	1	2	2	38	.18	.28	11	20	.27	79	.06	2+1.55	.01	.04	2	5	
5+50N-0+25W	1	7	5	38	.1	18	4	218	1.96	2	2	ND	5	16	1	2	2	32	.15	.25	11	20	.26	116	.06	2+1.42	.01	.04	2	5	
5+50N-0+00W	1	7	2	33	.1	18	4	168	2.05	2	2	ND	4	19	1	2	2	35	.20	.24	12	22	.27	98	.06	2+1.47	.01	.05	2	5	
ZN-125W	4	11	9	60	.1	18	6	718	2.37	6	2	ND	3	40	1	2	2	33	.41	.11	30	37	.75	126	.05	3+1.94	.01	.16	2	5	
ZN-100W	3	7	3	21	.1	9	3	701	1.46	3	2	ND	3	64	1	2	2	23	.63	.03	13	15	.26	90	.05	2+1.16	.02	.07	2	5	
ZN-75W	2	4	1	21	.1	11	3	172	1.50	3	2	ND	4	16	1	2	2	25	.15	.04	11	16	.24	56	.06	2+1.07	.01	.04	2	5	
ZN-50W	1	6	2	36	.1	10	3	291	1.45	9	2	ND	4	14	1	2	2	25	.19	.18	16	16	.23	75	.05	2+1.03	.01	.04	2	5	
6-1701 R	2	18	7	66	.1	37	10	705	3.78	2	2	ND	24	137	1	3	2	52	1.95	.21	79	84	1.99	50	.01	2+1.90	.02	.11	2	5	
6-1702 R	1	19	12	73	.2	41	12	719	4.32	2	2	ND	19	198	1	2	2	82	2.81	.25	85	106	2.16	36	.01	2+2.14	.02	.08	2	5	
6-1703 R	6	24	9	72	.7	31	8	319	3.77	28	2	ND	9	31	1	2	2	36	.35	.22	48	69	1.93	52	.01	2+1.44	.01	.22	2	15	
6-1704 R	1	17	8	69	.2	33	11	608	4.10	2	2	ND	19	123	1	2	2	70	1.81	.23	68	82	2.06	70	.02	2+2.09	.03	.13	2	5	
6-1705 R	1	18	16	71	.2	35	10	743	3.96	2	2	ND	21	45	1	2	2	89	1.22	.23	75	89	1.91	40	.26	3+2.01	.03	.10	2	5	
6-1706 R	4	26	15	50	5.4	23	7	380	3.23	59	2	ND	12	16	1	2	2	49	.24	.18	36	58	1.26	38	.01	2+1.43	.01	.11	2	255	
6-1707 R	2	17	6	78	.2	42	11	826	4.14	3	2	ND	15	80	1	2	2	89	1.57	.27	64	114	2.04	78	.26	2+1.90	.03	.10	2	5	
6-1708 R	1	23	10	78	.2	14	13	931	4.71	4	2	ND	19	290	1	2	2	80	2.74	.46	129	30	1.97	74	.02	2+1.81	.02	.07	2	5	
STD S-1/AU-0.5	86	122	114	182	33.4	150	80	472	3.17	116	101	33	162	124	86	83	90	57	.58	.12	124	63	.58	120	.07	174	1.44	.20	.19	61	510

Rocky



# Chemex Labs Ltd.

Analytical Chemists

Geochemists

Registered Assayers

212 Brooksbank Ave.  
North Vancouver, B.C.  
Canada V7J 2C1

Telephone: (604) 984-0221  
Telex: 043-52597

CERTIFICATE OF ASSAY

RECEIVED

CERT. # : A8414120-001-  
INVOICE # : 18414120  
DATE : 8-AUG-84  
P.O. # : NONE

8808

TO : RIO ALGOM EXPLORATION INC.

520 - 800 W. PENDER ST.  
VANCOUVER, B.C.  
V6C 2V6

ATTN: C.D. SPENCE &amp; R. CANN

Sample description	Prep code	Ag AA g/tonne	Au g/tonne				
11401	207	0.5	<0.07	--	--	--	--
11402	207	1.0	0.07	--	--	--	--
11403	207	1.0	0.30	--	--	--	--
11404	207	1.0	0.07	--	--	--	--
11405	207	1.7	0.07	--	--	--	--
11406	207	1.7	0.10	--	--	--	--
11407	207	1.0	1.60	--	--	--	--
11408	207	1.0	0.30	--	--	--	--
11409	207	1.7	1.20	--	--	--	--
11410	207	0.5	0.10	--	--	--	--
11411	207	0.5	0.10	--	--	--	--
11412	207	0.5	0.10	--	--	--	--
11413	207	<0.3	<0.07	--	--	--	--
11414	207	0.5	<0.07	--	--	--	--
11415	207	0.5	0.07	--	--	--	--
11416	207	11.0	0.40	--	--	--	--
11417	207	14.5	0.40	--	--	--	--
11418	207	4.4	0.70	--	--	--	--
11419	207	4.4	1.60	--	--	--	--
11420	207	4.4	1.30	--	--	--	--
11421	207	7.5	2.50	--	--	--	--
11422	207	4.4	3.60	--	--	--	--
11423	207	1.0	0.10	--	--	--	--
11424	207	0.5	0.10	--	--	--	--
11425	207	0.5	0.20	--	--	--	--
11426	207	0.5	0.07	--	--	--	--
11427	207	0.5	0.07	--	--	--	--
11428	207	1.0	0.10	--	--	--	--
11429	207	0.5	<0.07	--	--	--	--
11430	207	0.5	<0.07	--	--	--	--
11431	207	1.0	0.50	--	--	--	--
11432	207	1.7	0.20	--	--	--	--
11433	207	1.0	0.10	--	--	--	--
11434	207	0.5	0.07	--	--	--	--
11435	207	2.3	0.30	--	--	--	--
11436	207	0.5	1.10	--	--	--	--
11437	207	0.5	1.20	--	--	--	--
11438	207	1.0	0.10	--	--	--	--
11439	207	1.7	<0.07	--	--	--	--
11440	207	0.5	<0.07	--	--	--	--

..... *John Bonham* .....  
Registered Assayer, Province of British Columbia

# Chemex Labs Ltd.

Analytical Chemists • Geochemists • Registered Assayers

212 Brooksbank Ave.  
North Vancouver, B.C.  
Canada V7J 2C1

Telephone: (604) 984-0221  
Telex: 043-52597

## CERTIFICATE OF ASSAY

To : RIO ALGOM EXPLORATION INC.

520 - 800 W. PENDER ST.  
VANCOUVER, B.C.  
V6C 2V6

CERT. # : A8414120-002-A

INVOICE # : I8414120

DATE : 8-AUG-84

P.O. # : NONE  
8808

ATTN: C.D. SPENCE & R. CANN

Sample description	Prep code	Ag AA g/tonne	Au g/tonne				
11441	207	<0.3	<0.07	--	--	--	--
11442	207	<0.3	<0.07	--	--	--	--
11443	207	<0.3	<0.07	--	--	--	--
11444	207	<0.3	<0.07	--	--	--	--
11445	207	<0.3	<0.07	--	--	--	--
11446	207	<0.3	<0.07	--	--	--	--
11447	207	<0.3	<0.07	--	--	--	--
11448	207	<0.3	<0.07	--	--	--	--
11449	207	<0.3	<0.07	--	--	--	--
11450	207	<0.3	<0.07	--	--	--	--
11451	207	<0.3	<0.07	--	--	--	--
11452	207	<0.3	<0.07	--	--	--	--
11453	207	<0.3	<0.07	--	--	--	--
11454	207	<0.3	<0.07	--	--	--	--
11455	207	<0.3	<0.07	--	--	--	--
11456	207	<0.3	<0.07	--	--	--	--
11457	207	<0.3	<0.07	--	--	--	--
11458	207	<0.3	<0.07	--	--	--	--
11459	207	<0.3	<0.07	--	--	--	--
11460	207	<0.3	<0.07	--	--	--	--
11461	207	<0.3	<0.07	--	--	--	--
11462	207	<0.3	<0.07	--	--	--	--
11463	207	<0.3	<0.07	--	--	--	--

.....  
Stan Abramovis  
Registered Assayer, Province of British Columbia

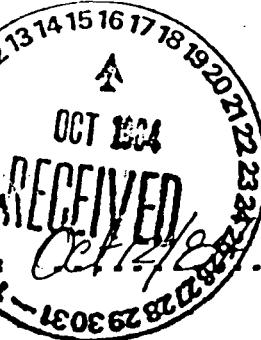


**APPENDIX D**  
**DRILL CORE GEOCHEMICAL RESULTS**

ARME ANALYTICAL LABORATORIES LTD.  
8 E.HASTINGS ST.VANCOUVER B.C. V6A 1R6  
PHONE 253-3158 DATA LINE 251-1011

DATE RECEIVED: OCT 19 1984

DATE REPORT MAILED:



### GEOCHEMICAL ICP ANALYSIS

.500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-3 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.  
THIS LEACH IS PARTIAL FOR Mn,Fe,Ca,P,Cr,Mg,Ba,Ti,B,Al,Na,K,W,Si,Zr,Ce,Sn,Y,Nb and Ta. Au DETECTION LIMIT BY ICP IS 3 ppm.

- SAMPLE TYPE: ROCK CHIPS AU\*\* ANALYSIS BY FA+AA FROM 10 GRAM SAMPLE.

*Cory*  
ASSAYER: *D. Toye* DEAN TOYE. CERTIFIED B.C. ASSAYER

RIO ALGOM EXPLORATION PROJECT # 8808 FILE # 84-2950 PAGE 1

SAMPLE#	CU PPM	PB PPM	ZN PPM	AG PPM	AS PPM	AU** PPB
G-1801	34	8	62	.3	13	15
G-1802	25	12	55	.2	39	12
G-1803	27	19	60	.3	18	18
G-1804	25	12	48	.3	20	21
G-1805	24	14	57	.7	67	39
G-1806	21	14	53	.8	167	44
G-1807	17	12	58	.3	84	17
G-1808	16	24	64	.1	29	9
G-1809	13	23	58	.2	2	12
G-1810	17	26	59	.3	11	16
G-1811	14	21	83	.3	5	8
G-1812	16	20	67	.3	2	9
G-1813	10	9	35	1.0	61	51
G-1814	17	23	58	.2	2	8
G-1815	12	23	61	.3	13	4
G-1816	16	18	61	.2	2	3
G-1817	15	22	59	.3	12	10
G-1818	13	16	58	.1	2	6
G-1819	15	18	61	.2	2	5
G-1820	16	7	60	.1	2	1
G-1821	15	16	56	.1	2	13
G-1822	18	25	44	1.6	159	225
G-1823	23	13	30	.1	2	1
G-1824	14	15	45	.4	21	16
G-1825	12	17	53	.3	33	19
G-1826	17	29	43	.3	2	5
G-1827	14	22	37	.1	2	4
G-1828	17	13	65	.3	75	28
G-1829	16	18	61	.3	2	7
G-1830	20	10	54	.2	2	5
G-1831	23	18	63	.4	2	14
G-1832	23	22	33	.3	8	21
G-1833	20	19	54	.2	5	23
G-1834	20	23	73	.2	4	29
G-1835	17	25	101	.1	9	31
G-1836	15	26	58	2.1	56	55
G-1837	17	26	45	1.9	46	42
STD C/FA-AU	58	37	118	6.4	38	49

RIO ALGOM EXPLORATION

PROJECT # 8808

FILE # 84-2950

PAGE 2

SAMPLE#	CU PPM	PB PPM	ZN PPM	AG PPM	AS PPM	AU** PPB
G-1838	10	28	54	2.9	69	79
G-1839	12	16	65	1.1	25	38
G-1840	9	15	38	1.6	45	35



# Chemex Labs Ltd.

Analytical Chemists • Geochemists • Registered Assayers

212 Brooksbank Ave.  
North Vancouver, B.C.  
Canada V7J 2C1

Telephone: (604) 984-0221  
Telex: 043-52597

## CERTIFICATE OF ANALYSIS

TO: RIO ALGOM EXPLORATION INC.

520 - 800 W. PENDER ST.  
VANCOUVER, B.C.  
V6C 2V6

CERT. #: A8417200-001-A  
INVOICE #: I8417200  
DATE : 23-OCT-84  
P.O. #: NONE  
8808

ATTN: C. D. SPENCE

Sample description	Prep code	Ag ppm	Au ppb FA+AA				
1822	205	1.7	175	--	--	--	--
1823	205	0.8	<5	--	--	--	--
1824	205	1.3	5	--	--	--	--
1825	205	0.6	<5	--	--	--	--
1826	205	1.4	15	--	--	--	--
1836	205	1.9	55	--	--	--	--
1837	205	2.7	45	--	--	--	--
1838	205	2.7	65	--	--	--	--
1839	205	1.1	15	--	--	--	--
1840	205	2.5	15	--	--	--	--



Certified by ..... *Hart Bickler*



ACME ANALYTICAL LABORATORIES LTD.

852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6

PHONE 253-3158

DATA LINE 251-1011

OCT 1984

## GEOCHEMICAL ICP ANALYSIS

.500 GRAM SAMPLE IS DIGESTED WITH CML 3-1-3 HCl-HNO<sub>3</sub>-HIC AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.  
 THIS LEACH IS PARTIAL FOR Mn, Fe, Ca, P, Cr, Mg, Ba, Ti, Al, Na, K, Ni, Sr, Cr, Sn, Y, RE and Ta. Au DETECTION LIMIT BY ICP IS 3 ppm.  
 - SAMPLE TYPE: CORE AU#1 ANALYSIS BY FA+RA FROM 10 GRAM SAMPLE.

DATE RECEIVED: OCT 13 1984 DATE REPORT MAILED: Oct 17/84 ASSAYER: DEAN TOYE. CERTIFIED B.C. ASSAYER

RIO ALGOM EXPLORATION PROJECT # 9808 FILE # 84-3009

PAGE 1

SAMPLE	Mo	Cu	Pb	In	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	St	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	N	Aut
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm									
61841	1	15	8	48	.1	13	6	471	1.94	2	5	ND	6	281	1	2	2	21	2.65	.13	49	29	1.05	60	.01	3	1.05	.01	.15	2	4
61842	3	17	14	48	.5	12	8	323	2.06	89	5	ND	11	221	1	2	2	17	1.40	.13	46	22	.84	28	.01	2	.96	.01	.16	2	265
61843	2	18	17	46	.1	15	7	580	2.46	28	5	ND	20	272	1	2	2	33	2.24	.15	60	35	.95	54	.02	2	1.04	.02	.16	2	12
61844	1	17	49	54	.1	13	7	544	2.20	10	5	ND	19	272	1	2	2	30	2.73	.15	68	28	.95	216	.01	3	1.03	.02	.14	2	3
61845	1	14	12	48	.1	13	6	514	2.07	10	5	ND	19	214	1	2	2	29	1.95	.15	62	28	.94	108	.04	2	.94	.04	.17	2	4
61846	1	15	13	48	.5	12	8	385	1.98	68	5	ND	16	241	1	2	2	19	1.90	.14	56	22	.86	158	.02	5	.91	.03	.17	2	120
61847	3	16	16	55	.2	13	7	384	1.98	251	5	ND	16	250	1	2	2	18	1.96	.16	54	17	.76	93	.02	4	.91	.05	.21	2	31
61848	4	16	19	52	.1	15	7	312	2.01	508	5	ND	17	239	1	2	2	16	1.66	.16	55	17	.77	149	.01	3	.93	.06	.21	2	54
61849	1	13	15	44	.1	11	8	449	1.76	74	5	ND	17	281	1	2	2	16	1.85	.15	58	16	.84	145	.02	5	.91	.05	.16	2	18
61850	1	13	12	42	.1	10	5	436	1.74	60	5	ND	18	189	1	2	2	14	2.00	.14	56	20	.71	100	.03	6	.75	.06	.14	2	5
61851	4	16	11	48	.1	13	6	389	1.89	223	5	ND	16	161	1	2	2	14	1.47	.15	53	17	.77	119	.02	3	.88	.06	.18	2	34
61852	1	15	16	46	.1	13	6	448	1.75	203	5	ND	15	201	1	2	2	13	1.76	.15	58	17	.84	58	.01	4	.98	.08	.20	2	30
61853	1	10	5	43	.1	10	5	553	1.53	5	5	ND	15	204	1	2	2	16	2.93	.14	62	23	.98	92	.04	2	.89	.06	.17	2	11
61854	1	16	14	46	.2	11	6	532	1.77	114	5	ND	16	192	1	2	2	13	2.01	.15	60	19	.90	93	.02	4	.99	.07	.18	2	28
61855	6	15	15	41	.3	12	6	381	1.58	282	5	ND	15	163	1	2	2	13	1.73	.15	53	14	.69	100	.02	5	.76	.06	.18	2	72
61856	1	14	15	51	.1	12	6	468	1.92	217	5	ND	16	176	1	2	2	14	1.43	.16	60	16	.99	125	.02	4	1.06	.07	.18	2	32
61857	2	17	15	47	.3	12	7	356	1.82	508	5	ND	13	219	1	2	2	11	2.48	.14	48	13	.71	166	.01	3	.84	.08	.17	2	51
61858	1	14	10	45	.1	11	6	449	1.75	60	5	ND	16	207	1	2	2	13	1.98	.14	59	15	.87	75	.02	4	.98	.08	.19	2	14
61859	1200	16	40	45	9.6	14	8	259	1.78	545	5	ND	12	137	1	6	2	9	.96	.13	45	10	.44	47	.01	4	.61	.05	.15	2	375
61860	1	15	16	46	.1	14	7	407	1.92	193	5	ND	15	191	1	2	2	12	1.40	.16	59	18	.82	221	.06	3	.95	.07	.17	2	37
61861	1	16	12	46	.1	12	6	583	2.00	55	5	ND	14	192	1	2	2	13	1.96	.15	58	20	.91	100	.04	2	1.06	.07	.16	2	14
61862	5	29	17	53	.2	30	14	352	3.43	594	5	ND	15	238	1	2	2	13	1.00	.29	63	19	.46	21	.01	4	.74	.09	.22	2	36
61863	23	16	37	.1	22	11	699	4.61	296	5	ND	5	235	1	2	2	10	3.33	.22	34	12	.36	30	.01	2	.54	.07	.19	2	15	
61864	2	17	10	57	.1	17	10	1104	2.73	165	5	ND	8	185	1	3	2	29	1.76	.22	50	35	1.27	40	.01	7	1.21	.06	.15	2	11
61865	25	24	17	45	.3	20	10	301	2.72	259	5	ND	10	229	1	3	2	11	1.07	.23	49	11	.26	15	.01	5	.56	.09	.21	2	28
61866	2	21	13	48	.2	22	10	332	2.70	198	5	ND	11	148	1	4	3	16	.80	.25	47	20	.45	21	.01	4	.67	.06	.15	2	9
61867	5	15	12	39	.2	19	9	263	2.35	268	5	ND	9	132	1	2	3	11	1.02	.22	42	9	.18	21	.01	4	.41	.05	.16	2	11
61868	2	24	14	55	.1	22	11	293	3.26	230	5	ND	13	136	1	2	2	19	.59	.24	54	18	.46	24	.01	4	.71	.06	.16	2	6
61869	2	30	14	55	.1	26	12	143	3.45	611	5	ND	12	182	1	3	2	10	.63	.28	59	9	.25	27	.01	4	.55	.08	.21	2	9
61870	6	23	15	50	.1	21	10	105	3.77	542	5	ND	11	165	1	5	2	8	.52	.22	45	6	.19	25	.01	5	.47	.07	.20	2	24
61871	8	26	19	47	.1	22	12	160	3.04	256	5	ND	12	226	1	4	3	10	.62	.24	54	9	.29	34	.01	5	.57	.10	.21	2	28
61872	12	28	19	58	.1	22	11	243	3.23	295	5	ND	11	236	1	3	2	10	1.02	.27	49	10	.32	32	.01	3	.60	.10	.23	2	31
61873	47	30	22	54	.1	28	13	411	3.49	384	5	ND	14	259	1	5	2	12	1.02	.24	58	11	.45	32	.01	3	.73	.12	.24	2	39
STD C/FA-AU	19	58	38	121	6.6	67	28	1076	3.82	41	20	7	35	46	16	15	21	59	.44	.14	37	56	.98	177	.07	37	1.62	.07	.12	12	53

ACME ANALYTICAL LABORATORIES LTD.

852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6

PHONE 253-3158

DATA LINE 251-1011

OCT 1984

RECEIVED

## GEOCHEMICAL ICP ANALYSIS

.500 GRAM SAMPLE IS DIGESTED WITH 3ML 3:1:1 HCL-HNO<sub>3</sub>-H<sub>2</sub>O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.  
 THIS LEACH IS PARTIAL FOR Mn, Fe, Ca, P, Cr, Mg, Ba, Ti, B, Al, Na, K, Ni, Si, Sr, Ce, Sn, Y, Nb and Ta. Au DETECTION LIMIT BY ICP IS 3 ppm.

- SAMPLE TYPE: CORE AU11 ANALYSIS BY FA+AR FROM 10-GRAM SAMPLE.

DATE RECEIVED: OCT 15 1984 DATE REPORT MAILED: Oct 17/84 ASSAYER: D. Toy. DEAN TOYE. CERTIFIED B.C. ASSAYER

RIO ALGOM EXPLORATION PROJECT # 8808 FILE # 84-301B

PAGE 1

SAMPLE#	Mg ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca ppm	P %	La ppm	Cr ppm	Mg ppm	Ba ppm	Ti ppm	B ppm	Al ppm	Na ppm	K ppm	N ppm	Au11 ppb
6-1874	3	11	33	50	.4	11	5	537	1.64	63	5	ND	14	498	1	2	2	20	4.20	.11	43	21	.56	31	.06	13	.65	.01	.11	2	40
6-1875	71	15	19	45	1.0	13	6	225	2.20	254	5	ND	16	85	1	3	2	22	.77	.13	48	24	.58	31	.12	8	.88	.01	.12	2	55
6-1876	1	15	14	48	.9	14	6	324	2.11	277	5	ND	17	433	1	4	2	24	2.61	.14	57	26	.75	27	.10	5	.85	.01	.10	2	38
6-1877	1	18	16	49	.2	15	7	293	2.11	127	5	ND	21	157	1	2	2	33	1.00	.16	64	28	.79	30	.10	10	.93	.01	.15	2	23
6-1878	1	17	15	51	.4	14	7	319	2.39	55	5	ND	17	110	1	2	2	27	.74	.15	54	24	.83	20	.15	6	1.02	.01	.15	2	21
6-1879	1	10	17	27	.9	11	4	217	1.27	44	5	ND	11	212	1	2	2	16	2.10	.09	34	14	.38	16	.12	10	.50	.01	.12	2	250
6-1880	2	10	14	28	1.0	11	5	417	1.27	126	5	ND	14	840	1	2	2	17	4.71	.10	42	14	.42	19	.13	13	.55	.01	.12	2	195
6-1881	1	15	19	48	.2	14	7	563	2.19	34	5	ND	18	304	1	2	2	29	2.31	.14	54	20	.91	28	.15	10	1.00	.02	.15	2	75
6-1882	1	10	11	36	.5	11	5	322	1.04	56	5	ND	12	243	1	2	2	25	2.25	.11	32	24	.72	22	.15	8	.76	.01	.11	2	55
6-1883	1	15	12	42	.2	12	6	415	1.59	26	5	ND	18	283	1	2	2	18	2.17	.16	63	20	.93	84	.11	8	.90	.08	.21	2	14
6-1884	7	17	11	44	.2	14	6	389	2.04	381	5	ND	16	245	1	2	2	15	1.35	.15	42	21	.80	76	.08	6	.90	.08	.21	2	51
6-1885	4	14	15	46	.2	12	6	573	1.87	202	5	ND	19	261	1	2	2	14	1.67	.14	53	13	.89	72	.05	8	.95	.08	.22	2	35
6-1886	1	15	25	52	.1	12	6	517	1.71	210	5	ND	16	297	1	2	2	13	2.33	.14	48	16	.77	243	.04	8	.88	.08	.18	2	21
6-1887	1	14	20	44	.1	11	6	642	1.60	16	5	ND	16	514	1	2	2	13	3.25	.15	52	15	.73	83	.04	8	.87	.07	.20	2	7
6-1888	1	17	16	52	.3	13	7	601	2.06	142	5	ND	16	311	1	2	2	14	2.17	.16	49	19	.98	54	.06	8	1.02	.08	.18	2	16
6-1889	1	15	19	46	.2	14	6	515	1.84	39	7	ND	16	612	1	2	2	14	2.13	.16	50	17	.95	57	.08	11	1.02	.07	.21	2	5
6-1890	1	18	9	50	.2	14	7	480	2.01	18	7	ND	18	265	1	2	2	17	1.77	.17	58	21	1.13	35	.04	6	1.08	.08	.19	2	1
6-1891	1	19	17	49	.1	14	7	414	2.10	142	5	ND	15	274	1	2	2	12	1.00	.18	56	16	.85	97	.02	8	.97	.06	.15	2	35
6-1892	13	19	49	62	2.5	15	8	394	2.65	281	5	ND	10	188	1	2	2	28	.62	.17	48	25	1.07	21	.03	5	1.10	.04	.15	2	135
6-1893	5	20	17	59	.5	17	9	379	2.91	307	5	ND	9	233	1	4	2	25	.57	.20	51	27	1.10	16	.02	5	1.16	.08	.18	2	34
6-1894	7	18	16	46	.5	24	12	125	2.57	498	5	ND	9	158	1	2	2	12	.47	.22	48	13	.31	16	.01	11	.54	.05	.21	2	32
6-1895	19	19	16	61	.2	21	10	58	1.98	259	5	ND	9	170	1	2	2	6	.55	.20	49	5	.08	16	.01	7	.34	.05	.21	2	6
6-1896	14	29	22	67	.1	40	12	684	3.19	200	5	ND	10	295	1	2	2	34	1.50	.25	58	59	1.35	18	.07	8	1.44	.07	.18	2	6
6-1897	2	52	19	89	.2	84	17	846	3.69	37	5	ND	9	217	1	2	2	40	1.92	.24	68	97	2.07	50	.12	2	1.95	.09	.21	2	1
6-1898	1	14	14	61	.1	22	11	840	2.42	34	5	ND	9	240	1	2	2	56	2.30	.20	55	61	2.03	163	.15	2	1.76	.07	.11	2	1
6-1899	1	27	12	64	.1	46	13	799	3.42	41	5	ND	9	291	1	2	2	47	1.83	.22	61	52	2.18	140	.13	2	1.94	.08	.21	2	1
6-1900	1	40	27	69	.1	40	17	639	3.70	28	5	ND	8	254	1	2	2	42	1.57	.25	61	45	1.78	95	.09	6	1.71	.08	.17	2	4
6-1901	4	43	30	73	.3	47	21	184	3.33	509	5	ND	15	193	1	31	2	19	.85	.29	90	20	.95	37	.01	4	.85	.09	.19	2	20
6-1902	5	33	16	65	.1	38	16	254	3.04	553	5	ND	13	288	1	17	2	22	.84	.38	91	23	.91	22	.02	6	1.03	.11	.23	2	14
6-1903	1	18	13	59	.1	23	11	522	2.94	115	5	ND	7	213	1	3	2	36	1.08	.24	48	23	2.06	13	.01	6	1.98	.07	.18	2	14
6-1904	1	22	10	60	.1	25	12	562	2.12	94	5	ND	10	277	1	2	2	33	1.34	.24	56	48	1.84	22	.02	4	1.63	.08	.22	2	2
6-1905	1	25	20	69	.1	22	11	757	3.50	142	5	ND	9	210	1	5	2	49	2.66	.24	58	57	1.35	15	.11	5	1.95	.10	.25	2	1
6-1906	1	22	14	66	.1	22	12	709	3.47	174	5	ND	10	220	1	4	2	40	1.57	.24	62	54	1.60	22	.01	5	1.67	.09	.20	2	1
6-1907	1	23	18	66	.1	30	11	687	3.17	214	5	ND	10	221	1	3	2	33	1.34	.21	66	50	1.52	30	.02	5	1.78	.11	.23	2	1
6-1908	1	22	10	101	.1	31	17	558	3.28	799	5	ND	9	613	1	12	2	32	.97	.27	68	49	1.49	20	.01	2	1.65	.09	.22	2	1
6-1909	2	24	17	67	.1	19	10	433	2.99	271	5	ND	9	810	1	6	2	23	1.28	.25	56	32	1.08	27	.02	9	1.47	.08	.15	2	17
6-1910	6	20	18	66	.1	19	9	313	2.79	499	5	ND	12	169	1	7	2	26	1.20	.18	58	20	.67	24	.03	9	.57	.05	.15	2	64
6-1911	1	18	17	59	.2	17	9	658	2.60	46	5	ND	11	596	1	5	2	24	1.94	.19	78	26	1.55	55	.01	7	1.58	.09	.19	2	1
6-1912	1	24	17	59	.1	23	7	295	1.77	12	5	ND	2	182	1	2	2	16	1.42	.05	18	4	.26	45	.01	8	.62	.04	.13	2	1
STC/FA-AU	20	59	37	124	5.7	21	27	1008	3.32	40	19	3	34	150	17	15	19	58	1.44	.14	38	57	.88	181	.07	37	1.61	.06	.14	12	57

**APPENDIX E**  
**DRILL CORE LOGS**  
**DDH's 1 to 3**

Rio Tinto Canadian Exploration Limited

Diamond Drill Record

Location: 2+41N  
0+75W

Hole No. DDH-1

Azimuth: North	Dips - collar	-50 °	Contractor:	Beaupre	Property:	Gold Option						
Elevation:	- 61.0m	-48 °	Logged By:	R. M. Cann, L. D. Holmgren						Claim No.	Gold	
Length:	- 148.1m	-48 °	Date:	October 5, 6, 1984						Section No.		
Core Size:	NQ	- m °								Started:	October 4, 1984	
Purpose:										Completed:	October 5, 1984	
From m	To m	Description	Sample No.	From m	To m	Recov. (m)	ppb Au	ppm Ag	%CB	%Qz	%Py	Susc.
0	5.79	CASING - overburden		5.79	6.00	0.18			7	2	tr.	-0.01
				6.00	8.00	1.82			1.5	< 1	1-2	0.0
5.79	66.00	FELDSPAR (+ BIOTITE) PORPHYRY		8.00	10.00	2.00			2	< 1	tr.	-0.01
		-30% 1-2mm pale green feldspar crystals		10.00	12.00	1.94			3	1	tr.	0.0
		-local red-brown (Hematitic) zones	G1801	12.00	14.00	1.98	15	0.3	2	1	tr.	0.1
		- irregular 1-3mm wide white carbonate stringers are common, randomly oriented	G1802	14.00	16.00	1.98	12	0.2	4	< 1	< 1	0.0
		Shear zones 8.75-9.00m @ 35°	G1803	16.00	18.00	2.00	18	0.3	1	1	0	-0.1
		12.40-12.55m @ 20°	G1804	18.00	20.00	1.91	21	0.3	2	2-3	< 1	0.0
			G1805	20.00	21.00	39	0.7					
			G1813	21.00	22.00	2.05	51	1.0	4	3-4	1	0.0
			G1806	22.0	24.00	1.96	44	0.8	2	4.5	2	0.0
		Qz vein @ 13.8 - 5mm wide with 2-4mm pyritic selvage	G1807	24.00	26.00	1.93	17	0.3	4	2	< 1	-0.2
		Carbonate veins @ 15.35 - 2cm & 3cm wide with grey chalcedony fragments.	G1808	26.00	28.00	1.93	9	0.1	3	1-2	tr.	0.0
			G1809	28.00	30.00	2.03	12	0.2	2	2-3	< 1	0.1
			G1810	30.00	32.00	1.98	16	0.3	3	2-3	2	0.0
18.50	36.00	Fault Breccia - numerous gougey zones subparallel to C/A. Carbonate stringers are chopped up; rock soft, crumbly.	G1811	32.00	34.00	1.95	8	0.3	2	1	1	0.0
			G1812	34.00	36.00	2.03	9	0.3	3	3-4	tr.	0.1
			G1814	36.00	38.00	1.99	8	0.2	5	1-2	tr.	0.0
		Carbonate patch, 5cm wide @ 21.0m.		38.00	40.00	1.98			3	1-2	< 1	0.1
		Chalced. - carbonate breccia with gougey lower contact 25.25-25.50m.		40.00	42.00	2.20			2	1	tr.	0.2
				42.00	44.00	1.90			1.5	1	< 1	0.1

## Rio Tinto Canadian Exploration Limited

## Diamond Drill Record

Hole No. DDH-1

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DH-1

From m	To m	Description	Sample No.	From m	To m	Recov. (m)	ppb Au	ppm Ag	%CB	%Oz	%Py	Susc.
		Quartz-carbonate-fluorite breccia matrix @ 31.7-		44.00	46.00	199			1-2	.5	1	0.0
		32.0m. Dark grey quartz carbonate patch, 7cm wide @ 34.35m.		46.0	48.0	201			1	0	0	0.7
		Quartz-carbonate-fluorite patch @ 36.2m.		48.0	50.0	198			1	0	0	0.6
		Carbonate patch @ 37.15 - 37.20	G1818	50.0	52.0	194			2	.5	tr.	0.1
			G1819	52.0	54.0	192	6	0.1	2-3	1	tr.	0.2
			G1815	54.0	56.0	187	5	0.2	3-4	2	0	0.2
38.50	38.60	Gouge Zone @ 55°	G1816	56.0	58.0	193	4	0.3	3	2	tr.	0.1
			G1817	58.0	60.0	199	3	0.2	2	1	tr.	0.2
		Quartz-carbonate. Knot, 2cm wide @ 38.95		60.0	62.0	195	10	0.3	2	1	0	0.5
			GL820	62.0	64.0	194			1	.5	0	0.2
		Shears 50° @ 41.0m		64.0	65.0	195	1	0.1	2	1.5	0	0.1
		30° @ 42.35m		65.0	66.0				2	.5	0	0.1
				66.0	68.0	191			2	0	0	0.1
				68.0	70.0	197			2	0	0	0.1
44.5	50.6	Fresh feldspar porphyry		70.0	72.0	189			1	1	0	0.2
		-dark green-grey matrix with 2-6mm pale green clay altered feldspar phenocrysts.		72.0	74.0	194			2	1.5	0	0.1
		Pink-brown colouration (hematite?) towards top.		74.0	76.0	194			2	2	0	0.1
		-thin 1mm carbonate stringers @ 30°		76.0	78.0	186			2	1	0	0.1
		-lower contact faulted @ 60°.	G1821	78.0	80.0	194	13	0.1	3-4	2	tr.	0.0
		(80.1-80.81)	G1822	80.0	82.0	184	225	1.6	1	15%	tr.	0.0
				82.0	84.0	198			2	.5	0	0.0
50.6	52.0	Fault Zone		84.0	86.0	187			2	1	0	0.0
		-sheared, brecciated	G1823	86.0	87.0	201	1	0.1	12	2	0	0.0
		-grey chalcedonic patch @ 53.5.		87.0	88.0				1	.5	0	0.0
			G1824	88.0	90.0	192			3	1.5	tr.	0.0
54.1	54.25	Fault Zone	G1825	90.0	92.0	193	16	0.4	4	2	tr.	0.0
		-chloritic gouge parallel to C/A; carbonate patches.	G1826	92.0	94.0	192	19	0.3	3	2	<1	0.0
				94.0	96.0	192	5	0.3				

	%Py	Susc.
< 1	0.1	
0	0.5	
0	0.9	
tr.	0.6	
0	0.7	
tr.	0.0	
0	0.0	
tr.	0.0	
4-5	0.0	
4	0.0	
2-3	0.0	
1	0.0	
< 1	0.1	
1	0.0	
5	2	0.0
6	0	0.0
4	0	0.0
6	0	0.0
1	0	0.0
tr.	0.2	
1-2	0.1	
5	0.1	
<1	0.1	
tr.	0.1	
tr.	0.1	
tr.	0.1	

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Hole No. DDH-1

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From m	To m	Description	Sample No.	From m	To m
		@ 120.0-120.35m			
		Faults @ 108.61-108.76m ( $65^{\circ}$ ) and 119.54-119.68m ( $50^{\circ}$ )			
121.80	131.52	<u>ANDESITIC LAPILLI TUFF</u>			
		-angular 0.1-2cm fragments in a dark grey to black chloritic matrix.			
		-local white and grey quartz fragments.			
126.09	126.40	Fault - slips @ $60^{\circ}$ .			
126.09	127.10	Fault breccia.			
130.52	130.70	Fault - gougey slips @ $60^{\circ}$ .			
126.40	131.52	Siliceous breccia			
		-pyritic matrix surrounding angular siliceous fragments.			
		-4cm quartz vein @ 129.3m.			
131.52	142.50	<u>FELDSPAR PORPHYRY ANDESITE</u>			
		-olive-brown to pink-brown flow			
		-gradational contact with lower unit.			

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## Diamond Drill Record

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From m	To m	Description	Sample No.	From m	To m	
131.52	132.94	brecciated rock; locally siliceous				
135.60	139.80	brecciated zone - irregular quartz stringer and fragments. -hematitic 136-138m -very brecciated with 20% quartz, 15% carbonate 139.0-139.4m. -very siliceous 137.9-138.1m.				
142.50	148.15	<u>ANDESITIC BRECCIA</u> -dark green to green-grey feldspar porphyry fragments and minor brown-maroon fragments (possible flow-top breccia) -abundant wisps, stringers and spots of white carbonate.  Shear @ 144.64-144.70m @ 30°.				
148.13	END OF HOLE	(Average recovery 97.6%).				

## Rio Tinto Canadian Exploration Limited

## Diamond Drill Record

Hole No. DDH 2

Location: 1 + 62N  
2 + 56W

Azimuth: 235°

Dips - collar -50° °

Contractor: Beaupre

Property: Gold Option

Elevation:

- 61.0m -49° °

Logged By: R. M. Cann/L. D. Holmgren

Claim No. Gold

Length: 154.23

- 154.2m -50° °

Date: October 8, 9, 1984

Section No.

Core Size: NQ

- m °

Started: October 6, 1984

Purpose:

Completed: October 7, 1984

From m	To m	Description	Sample No.	From m	To m	Recov (m)	ppb Au	ppm Ag	%CB	%Oz	%Py	Susc.
0	7.01	CASING - overburden	G1841	7.01	8.01	.97	4	0.1	1	.5	0	0.3
				8.0	10.0	177			.5	tr.	0	0.3
7.01	13.11	FELDSPAR HORNBLENDE PORPHYRY (?)	G1842	10.0	11.0		295	0.5	1.5	1.5	1	0.1
		- variably textured tuff or flow		11.0	12.0	189			1	1	0	1.6
		- top metre has pinkish colour flooding rock		12.0	14.0	191			1	.5	0	0.5
		and contains soapy green patches (possibly	G1843	14.0	16.0	183			1	.5	0	1.4
		remnant clasts).		16.0	18.0	193	12	0.1	.5	.5	0	
		- 2-5cm patches of dark red-brown hematitic		18.0	20.0	191			tr.	2	1	0.0
		alteration.	G1844	20.0	22.0	198			.5	.5	0	0.7
				22.0	24.0	202	3	0.1	1.5	.5	0	0.4
				24.0	26.0	200			.5	.5	0	0.2
9.00	13.11	Fault zone		26.0	28.0	196			.5	.5	0	0.5
		- gouge 9.60-10.06 with shearing @ 35°	G1845	28.0	30.0	202	4	0.1	1	1	0	0.1
		- brecciated, silicified zone @ 10.40-10.64m		20.0	32.0	196			.5	1	tr.	0.1
		- minor carbonate stringers		32.0	34.0	192			2	1.5	tr.	0.2
			G1846	34.0	36.0	202	120	0.5	2	1.5	tr.	0.1
13.11	22.74	FELDSPAR PROPHYRY		36.0	38.0	197			2	1.5	tr.	0.2
		- dark grey to green-grey flow		38.0	40.0	197			1	1	tr.	0.2
		- 10-15% 1-2mm feldspar phenocrysts in	G1847	40.0	42.0	193	31	0.2	1.5	2	1	0.2
		aphanitic matrix		42.0	44.0	190			1	1	0	0.7
				44.0	46.0	193			1.5	1.5	tr.	0.2

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Diamond Drill Record

Hole No.	DDH 2
Page No.	2 of 7

From m	To m	Description	Sample No.	From m	To m	Rec. (m)	ppb Au	ppm Ag	%CB	%Qz	%Py	Susc.
		- textures (especially feldspar) become fuzzy toward bottom of unit, however, no distinct alteration observed.	G1848	46.0	48.0	200	54	0.1	1	2	0	0.0
				48.0	50.0	188			.5	1	0	0.1
				50.0	52.0	177			1	1	0	0.2
16.65	16.83	Shear - core broken and gougey; shears @ 50°	G1849	52.0	54.0	200	18	0.1	2	1	0	0.1
				54.0	56.0	188			1	1	0	0.1
18.20	19.39	Bleached section (pale green) with few irregular pink-brown patches. - gougey slip @ 18.18m @ 80° - fault from 19.09-19.39m - quartz-carbonate stringer @ 18.87m	G1850	58.0	60.0	196	6	0.1	.5	.5	0	0.0
				60.0	62.0	192			.5	.5	0	0.4
				62.0	64.0	188			tr.	.5	tr.	0.1
			G1851	64.0	66.0	200	0.1	34	0.1	.5	.5	0.1
				66.0	68.0	200			1	1.5	0	0.2
22.74m		Fault Contact @ 40°		68.0	70.0	174			.5	.5	0	0.1
			G1852	70.0	72.0	178	30	0.1	tr.	.5	0	0.1
22.74	29.00	<u>FELDSPAR (HORNBLENDE) PORPHYRY</u>		72.0	74.0	200			1	1	0	0.2
		- marroon to greenish volcanic containing 5-10% 2-4mm feldspar phenocrysts and 1-2mm chloritic hornblende (?) crystals. - carbonate stringers and patches common.	G1853	74.0	76.0	200			.5	1	0	0.0
				76.0	78.0	192	11	0.1	1.5	2	0	0.1
				78.0	80.0	192			1	1	0	0.0
				80.0	82.0	197			.5	.5	0	0.0
			G1854	82.0	84.0	197	28	0.2	1.5	.5	tr.	0.0
29.00	32.77	<u>ANDESITIC TUFF (?)</u>		84.0	86.0	200			1.5	2	0	0.0
		- green to marroon volcanic containing 1-2mm chloritic crystals and angular fragments to 1.5cm. - 2cm quartz-carbonate vein @ 29.45m @ 80° - carbonate veinlets common. - fault 30.65m @ 90°	G1855	86.0	88.0	192			.5	.5	tr.	0.0
				88.0	90.0	203	72	0.3	1	2	tr.	0.0
				90.0	92.0	196			.5	.5	tr.	0.0
			G1856	92.0	94.0	193			1.5	1	0	0.0
				94.0	96.0	195	32	0.1	1.5	4	tr.	0.1
				96.0	98.0	200			2	1.5	0	0.0

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## Diamond Drill Record

Hole No. DDH 2

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From m	To m	Description	Sample No.	From m	To m	Rec. (m)	ppb Au	ppm Ag	%CB	%Qz	%Py	Susc.
32.77	72.88	FELDSPAR PORPHYRY FLOWS		98.0	100.0	192			1	1.5	tr.	0.0
		- 2-4mm feldspar phenocrysts in green aphanitic matrix.	G1857	100.0	102.0	196	51	0.3	1.5	4	1	0.1
				102.0	104.0	205			.5	1	0	0.0
		- 32.77-39.0m feldspar altered to dark green celadonite.		104.0	106.0	198			1	1	0	0.0
			G1858	106.0	108.0	185	14	0.1	1	.5	0	0.1
				108.	110.0	200			2	.5	0	0.0
		1.6cm white quartz vein @ 35.11m @ 70°	G1859	110.0	112.0		375	9.6	1	2	1	0.0
				110.5	112.0	201						
		2.2cm quartz carbonate vein @ 36.55m @ 70°		112.0	114.0	200			1	.5	tr.	0.1
		1.6cm carbonate quartz vein @ 37.55m @ 65°	G1860	114.0	116.0	201	27	0.1	.5	.5	0	0.1
40.62	40.94	Fault - clay gouge with slips at 15°	G1861	116.0	118.0	193	14	0.1	1.5	2	tr.	0.1
42.0	50.0	Flows grey to green; feldspar fuzzy due to pervasive clay alteration.	G1862	118.0	120.0	200	36	0.2	tr.	5	2	0.0
			G1863	120.0	121.0		15	0.1				
			G1864	121.0	122.0	203	11	0.1	tr.	15	4	0.1
			G1865	122.0	123.0		28	0.3				
			G1866	123.0	124.0	196	8	0.2	1.5	20	2	0.0
		3cm quartz carbonate patch @ 44.80m.	G1867	124.0	125.0		11	0.2				
			G1868	125.0	126.0	195	6	0.1	tr.	30	2	0.0
			G1869	126.0	127.0		9	0.1				
			G1870	127.0	128.0	205	24	0.1	0	30	3	0.0
50.0	60.0	Mottled marroon and pale green flows (as above. Abundant quartz carbonate stringers and fragments in brecciated rock. 51.9-52.8m 0.6cm quartz vein @ 53.52m @ 75°)	G1871	128.0	129.0		28	0.1	tr.	25	5	0.0
			G1872	129.0	130.0	196	31	0.1	tr.	5	4	0.0
			G1873	130.0	132.0	194	39	0.1	tr.			
				132.0	134.0	199			.5	2	0	0.1
				134.0	136.0	200			1.5	2	0	0.1
		2cm quartz carbonate vein @ 55.3m @ 45°		136.0	138.0	191			1.5	5	1	0.1
				138.0	140.0	200			3	2	0	0.5
47.55	72.88	Major Fault		140.0	142.0	191			3	2	0	0.7
		- numerous gougey seams, brecciated rock and small slips.		142.0	144.0	194			3	2	0	1.7
				144.0	146.0	200			2.5	1	0	1.5
		Especielly 52.20-53.65m slip @ 50°		146.0	148.0	200			3	1	0	1.0
				148.0	150.0	203			3	1	0	1.9

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Hole No. DDH 2

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From m	To m	Description	Sample No.	From m	To m
109.50	118.79	<p><u>ANDESITIC FLOWS</u></p> <ul style="list-style-type: none"> <li>- pale green due to strong clay alteration</li> <li>- section is mainly 0.1-2cm volcanic fragments, closely packed in a gougey matrix.</li> <li>- shear probably runs sub-parallel to C/A</li> <li>- few stringers and patches of quartz carbonate.</li> <li>- dark grey metallic in quartz 110-110.5m.</li> </ul>			
118.79	129.84	<p><u>PYRITIC BRECCIA ZONE</u></p> <ul style="list-style-type: none"> <li>- brecciated, bleached (sericite-clay) angular, 0.1-5cm volcanic fragments containing 1-4% finely disseminated pyrite.</li> <li>- breccia healed by later quartz flooding</li> <li>- irregular 1-4cm patches of pyrite common</li> <li>- one chalcedony fragment noted</li> <li>- patches of crystalline, soft, chocolate brown mineral 120.80-121.35m - possibly gypsum</li> <li>- breccia appears to be part of a major structure with numerous gougey slips @ 30-60°.</li> <li>- local staining with green celadonite</li> <li>- no distinct veins.</li> </ul>			

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**Rio Tinto Canadian Exploration Limited**

**Diamond Drill Record**

**Hole No. DDH 3**

Location:	0 + 42N 1 + 91W	Dips - collar -50° °	Contractor:	Beaupre	Property:	Gold Option						
Azimuth:	235°	Elevation:	- 61.0m	Logged By:	R. M. Cann & L. D. Holmgren	Claim No.	Gold					
Length:	154.23m		- 154.23	Date:	October 10, 11, 1984	Section No.						
Core Size:	NQ	m °				Started:	October 8, 1984					
Purpose:						Completed:	October 9, 1984					
From m	To m	Description	Sample No.	From m	To m	Recov (m)	ppb Au	ppm Ag	%CB	%Qz	%Py	Susc.
0	5.49	CASING - overburden		5.49	8.0	190			tr.	.5	0	0.0
			G1874	8.0	10.00	199	40	0.4	2.5	2	0	0.0
5.49	39.40	FELDSPAR PORPHYRY ANDESITE		10.00	12.00	197			1.5	1	0	0.1
		- 1-4mm white feldspar crystals in an aphanitic pale grey to green-grey matrix.		12.00	14.00	186			0.5	.5	tr.	0.1
		- local maroon tint to matrix		14.00	16.00	196	65	1.0	1	1	<1	0.1
		- 5% chloritic spots		16.00	18.00	183			.5	.5	tr.	0.1
		- core limonitic to 8.5m and feldspars plucked (clay altered) to 16m		18.00	20.00	199			tr.	tr.	0	0.2
			G1876	20.00	22.00	210	38	0.9	2.5	1	<1	0.1
				22.00	24.00	196			.5	tr.	tr.	0.2
				24.00	26.00	196			.5	tr.	0	0.5
		8cm quartz carbonate vein (45°) @ 8.70m	G1877	26.00	28.00	200	23	0.2	.5	tr.	0	0.5
		1.5cm quartz carbonate vein (35°) @ 10.20		28.00	30.00	195			tr.	tr.	tr.	0.0
		0.5cm quartz carbonate vein (30°) @ 14.62		30.00	32.00	200			1	.5	<1	0.1
		2-1cm quartz carbonate-fluorite veins (50° & 45°) @ 15.10m	G1878 G1879	32.00	34.00	200	21 250	0.4 0.9	5	8	<1	0.1
		1 cm quartz carbonate vein (40°) @ 20.46m	G1880	34.00	36.00	198	195	1.0	5	6	tr.	0.2
		Small shear @ 45° @ 16.71m	G1881	36.00	38.00	203	75	0.3	3	2	0	0.2
				38.00	40.00	195			1.5	.5	tr.	0.2
			G1882	40.00	42.00	200			.5	tr.	tr.	0.1
				42.00	44.00	193	55	0.5	2.5	5	<1	0.1
				44.00	46.00	198			1.0	tr.	tr.	0.0

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Hole No. DDH 3

Page No. 2

From m	To m	Description	Sample No.	From m	To m	Recov (m)	ppb Au	ppm Ag	%CB	%Qz	%Py	Susc.
20.48	20.80	Dyke(?) - pink brown, medium-grained feldspar porphyry-possible monzonite		46.00	48.00	182			1.5	tr.	0	0.3
		- upper contact sharp @ 45° and lower contact gradational	G1883	48.00	50.00	187	14	0.2	2.0	.5	0	0.0
				50.00	52.00	201			1	tr.	0	0.1
				52.00	54.00	200			1	1	tr.	0.1
			G1884	54.00	56.00	195	51	0.2	1.5	1	tr.	0.1
		2cm broken, irregular quartz carbonate vein @ 21.40m		56.00	58.00	198			15	tr.	<1	0.1
				58.00	60.00	185			.5	tr.	0	0.1
			G1885	60.00	62.00	193	35	0.2	1.0	.5	0	0.0
		4cm & 2cm carbonate wisps with pyrite and dark metallic as selvage @ 30.27m		62.00	64.00	202			1.5	.5	0	0.1
				64.00	66.00	197			.5	tr.	0	0.1
		1.5cm quartz carbonate veins (60°) @ 30.42m and 32.71m. Four 4-8cm wide banded quartz carbonate veins (@35-50°) with no alteration envelopes 32.96-33.53m	G1886	66.00	68.00	199	21	0.1	2.5	.5	tr.	0.0
				68.00	70.00	196			.5	.5	tr.	0.1
				70.00	72.00	198			.5	1	<1	0.0
			G1887	72.00	74.00	196	7	0.1	2	5	tr.	0.0
		Three 1cm wide quartz carbonate veins (30-75°) 34.1-34.4m		74.00	76.00	199			1.5	.5	0	0.0
				76.00	78.00	190			1	1	0	0.0
		10cm quartz vein (30°) @ 34.6m -large veins are generally finely banded at margin and display a vague brecciated texture in centre.	G1888	78.00	80.00	192	16	0.3	1	.5	0	0.0
				80.00	82.00	200			.5	1	0	0.0
				82.00	84.00	196			.5	tr.	<1	0.1
			G1889	84.00	86.00	196	5	0.2	1.5	.5	tr.	0.0
				86.00	88.00	197			1.5	.5	0	0.0
35.20	38.70	Shear Zone - brecciated rock with shears running parallel to C/A. - quartz + carbonate fragments and wisps included in breccia. - 3cm quartz vein (45°) @ 37.5m.	G1890	88.00	90.00	202			1.5	.5	0	0.0
				90.00	92.00	195			1.5	1	0	0.0
				92.00	94.00	200			2.0	.5	0	0.0
				94.00	96.00	200			.5	tr.	0	0.1
			G1891	96.00	98.00	193			.5	tr.	tr.	0.1

Rio Tinto Canadian Exploration Limited  
Diamond Drill Record

Hole No. DDH 3

Page No. 3

From m	To m	Description	Sample No.	From m	To m	Recov (m)	ppb Au	ppm Ag	%CB	%Qz	%Py	Susc.
39.40	44.50	PORPHYRITIC DYKE (?)		98.00	100.00	203			.5	0.5	tr.	0.0
		- 10% 1-3mm clay altered (plucked) feldspar phenocrysts and 2-3% disseminated pyrite in an aphanitic pale green-grey to pink-grey matrix	G1892 G1893 G1894 G1895 G1896 G1897 G1898 G1899	100.00 102.00 102.00 104.00 104.00 104.00 106.00 106.00	102.00 200 104.00 158 108.00 178	202 135 34 32 6 1 1 1	2.5 0.5 0.5 0.3 0.1 0.2 0.1 0.1	.5	6.0	2	0.0	
		- white quartz vein @ 55°	G1900 G1901	108.00	110.00	210	4	0.1	tr.	8	3	0.0
		- broken and displaced by 45° shear	G1902 G1903 G1904 G1905	110.00 112.00 112.00 114.00	112.00 156 114.00 196	14 20 14 22	0.1 0.1 0.1 0.1	.5	5	4	0.3	
42.25	42.45	FELDSPAR PORPHYRY ANDESITE		114.00	116.00	200			1	1	<1	0.2
		- generally grey-green but varies rapidly in to local areas of pale maroon colour.		116.00	118.00	195			2	2	1	0.0
		- most feldspar phenocrysts have altered to dark green celadonite or very locally to montmorillonite.	G1906 G1907 G1908 G1909 G1910	120.00 122.00 122.00 124.00 126.00	122.00 193 124.00 201 128.00	1 1 1 1 64	0.1 0.1 0.1 0.1 0.1	1.5	3	<1	0.3	
				126.00	128.00	200			1	2	1	0.0
44.50	100.00	Fault - gouge, shearing @ 45°		128.00	130.00	198			1	.5	0	0.1
47.62	47.85	Fault - fault breccia, gouge, shearing @ 50°		130.00	132.00	203			1	tr.	tr.	0.2
48.55	49.52	Fault - brecciated, shearing sub-parallel to C/A	G1911	132.00	134.00	198			1	.5	0	0.2
50.05	51.07			134.00	136.00	181	2	0.2	2	2	0	0.4
52.25	53.25	Shear Zone - gougey shears @ 60°		136.00	138.00	192			.5	.5	tr.	0.6
53.60	54.47	Fault - shearing @ 25°; includes a 4cm patch of carbonate and black metallic		138.00	140.00	206			.5	.5	tr.	0.4
		1.5cm quartz vein (55°) @ 55.27m		140.00	142.00	194			1	.5	1	0.4
				142.00	144.00	190			.5	tr.	tr.	0.4
			G1912	144.00	146.00	210	3	0.1	tr.	tr.	0	0.6
				146.00	148.00	196			tr.	tr.	tr.	0.3
56.4	58.0	Shear Zone - parallel to C/A		148.00	150.00	189			.5	tr.	tr.	0.4

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From m	To m	Description	Sample No.	From m	To m
78.34	79.06	Shear Zone - slips @ 60°  1.5 cm pale pink-brown quartz vein (55°) @ 81.06m - cut by carbonate-fluorite veinlet			
83.80	84.81	Shear - parallel to C/A  Small gougey shear (60°) @ 86.28m			
88.93	89.35	Shear - gougey slips @ 65°			
89.92	90.22	Fault - slips @ 45°  Small gougey slip (60°) @ 96.47m			
100.00	104.15	QUARTZ-PYRITE BRECCIA			
100.00	101.69	Breccia composed of crushed, rounded 0.1cm to 8cm, closely packed rock fragments plus 5-10% fragmented quartz veins in a gougey chloritic matrix. Fragments contain 1-2% finely disseminated pyrite. Breccia generally has a chloritic green colour except for lower 0.4m which is hematitic red-brown.			
101.69	104.15	Pale grey to tan silicified rock fragments containing 3-5% disseminated pyrite in a grey quartz-pyrite matrix. Local pale green colour from celadonite (?).			

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Diamond Drill Record

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From m	To m	Description	Sample No.	From m	To m
136.67	154.23	<p><b>FELSIC TUFF</b></p> <ul style="list-style-type: none"> <li>- pink to tan, fine to medium-grained crystal tuff.</li> <li>- towards top of unit fine laminations at 50° to C/A</li> <li>- tuff contains approximately 1% disseminated pyrite and a few carbonate stringers.</li> <li>- local narrow sections of andesite toward top especially 141.00-141.46m.</li> </ul>			
142.7	143.6	<p><b>Shear Zone - brecciated, gougey, slips</b></p> <p>50-60°</p>			
154.23		<b>END OF HOLE (Average recovery 97.4%).</b>			

**APPENDIX F**  
**STATEMENT OF QUALIFICATIONS**

STATEMENT OF QUALIFICATIONS

1. I am a geologist residing at #3-313 Highland Way, Port Moody, B.C. and am employed by Rio Algom Exploration Inc. of Ste. 520-800 West Pender Street, Vancouver, B.C.
2. I am a graduate of The University of British Columbia with a B.Sc. (Geology) in 1976, and an M.Sc. (Geology) in 1979.
3. I have practised my profession with Rio Algom and other companies since graduation.
4. I am a Member of the Geological Association of Canada and a Member of the Canadian Institute of Mining and Metallurgy.
5. I supervised the geological, geochemical, drilling and geophysical programs conducted on the Gold claims in August and October 1984.



R. M. Cann

Vancouver

January 1985



**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

L 900 S

L 800 S

L 700 S

L 600 S

L 500 S

L 400 S

L 300 S

L 200 S

L 100 S

L 00

L 050 S

L 100 N

L 150 N

L 200 N

L 300 N

L 400 N

L 500 N

L 600 N

L 550 N

L 500 N

L 450 N

L 400 N

L 350 N

L 300 N

L 250 N

L 200 N

L 150 N

L 100 N

L 050 N

L 00

L 050 S

L 100 S

L 150 S

L 200 S

L 250 S

L 300 S

L 400 S

L 500 S

L 600 S

L 700 S

L 800 S

L 900 S

L 1000 S

N.T.S.

83 E / 6 W

50 0 50 100 150 Metres

SCALE 1:2000

Contour Interval 100 Feet

100 200 300 400 500

0.0 50 100 150 200 250 300 350 400 450 500

500 550 600 650 700 750 800 850 900 950

1000 1050 1100 1150 1200 1250 1300 1350 1400 1450

1500 1550 1600 1650 1700 1750 1800 1850 1900 1950

2000 2050 2100 2150 2200 2250 2300 2350 2400 2450

2500 2550 2600 2650 2700 2750 2800 2850 2900 2950

3000 3050 3100 3150 3200 3250 3300 3350 3400 3450

3500 3550 3600 3650 3700 3750 3800 3850 3900 3950

4000 4050 4100 4150 4200 4250 4300 4350 4400 4450

4500 4550 4600 4650 4700 4750 4800 4850 4900 4950

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16000 16050 16100 16150 16200 16250 16300 16350 16400 16450

16500 16550 16600 16650 16700 16750 16800 16850 16900 16950

17000 17050 17100 17150 17200 17250 17300 17350 17400 17450

17500 17550 17600 17650 17700 17750 17800 17850 17900 17950

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21500 21550 21600 21650 21700 21750 21800 21850 21900 21950

22000 22050 22100 22150 22200 22250 22300 22350 22400 22450

22500 22550 22600 22650 22700 22750 22800 22850 22900 22950

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
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# **G E O L O G I C A L B R A N C H A S S E S S M E N T R E P O R T**

13,477

The image shows a decorative monogram consisting of a central letter 'N' enclosed in a circular border with horizontal lines. Above the circle is a diamond-shaped ornament with a pointed top.

L E G E

The diagram illustrates two waveforms representing signals from two detectors. The top waveform is labeled "In-phase" and shows two peaks. The bottom waveform is labeled "Quadrature" and shows two troughs. A vertical arrow points downwards between the two waveforms, indicating the "Cross-over location".

N.T.S.


**SCALE 1:2000**

A scale bar and a contour interval label. The scale bar is a horizontal line with tick marks at 50, 0, 50, 100, and 150. Below the scale bar is the text "Contour Interval 100 Feet". To the right of the scale bar is the word "Metres".

50            0            50            100            150      Metres

Contour Interval 100 Feet

**GOLD OPTION**  
**VLF PROFILES**  
**FOR**  
**CUTLER TRANSMITTER FREQUENCY**




GEOLOGICAL BRANCH  
ASSESSMENT REPORT

**13,177**

Rio Algom Exploration Inc.  
GOLD OPTION  
TOTAL FIELD MAGNETIC CONTOURS  
(BASE = 57,000 gammas)

DATE DRAWN BY DRAWN BY AUGUST, 1984 /dg GP 8036

MAGNETIC CONTOUR INTERVAL = 50 gammas  
BASE = 57,000 gammas



**Rio Algom Exploration Inc.**  
**GOLD OPTION**  
**VLF FRASER FILTER CONTOURS**  
**(CUTLER TRANSMITTER)**

DRAWN BY: T. TURNER  
 AUGUST, 1984  
 DNS/dg  
 GP 8035



**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**


**13,477**

Rio Algom Exploration Inc.

GOLD OPTION

GEOLGY

AUGUST, 1984 DRAWN BY / dg G 8034




Rio Algom Exploration Inc.

GOLD OPTION

SOILS

ppm Ag, ppm Sb

DATE July 1984 DRAWN BY DWG CDS/ytm GC-8033V



Rio Algom Exploration Inc.

GOLD OPTION

SOILS

ppm Cu, ppm Pb

DATE July 1984 DRAWN BY DWG.

CDS/ym GC 8032V