

A Diamond Drill Report
on the
ROX GROUP Property
(Cedar Creek, Ernest 1, Lilly 1, Lor, Ang, Rocky, Harriet,
Nancy, Toucan and Cliona claims)
located in the
Likely Area, Cariboo Mining Division
Map M93A/12E
Latitude $52^{\circ}37'N$ and Longitude $121^{\circ}35'W$
for
Raymond A. Cook
(owner and operator)
by
Raymond A. Cook B.Sc., M.Sc., Geology
May 8, 1982

MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
10864

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I. INTRODUCTION

An exploration diamond drill program was performed to test the continuity and character of a rediscovered 1923 polymetallic-gold showing located within Cedar Creek canyon.

Property

The claims included in the Cedar Creek property, hereafter called the ROX GROUP, are located in the Quesnel Lake area of the Cariboo Mining Division, British Columbia. The claims are held by Raymond A. Cook and include:

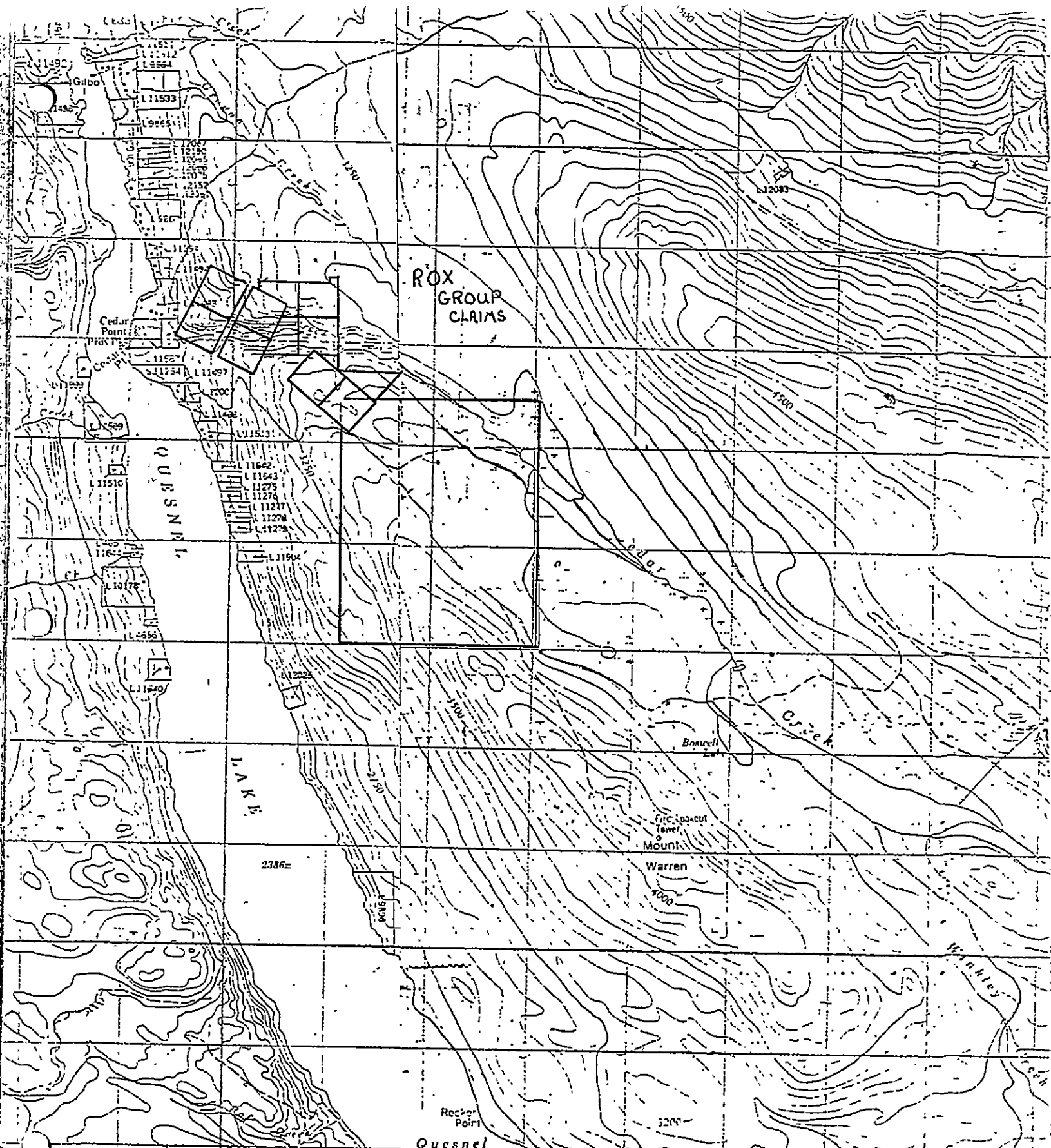
<u>Claim</u>	<u>Record No.</u>
Cedar Creek 1	979
Cedar Creek 2	980
Cedar Creek 3 ✓	981
Cedar Creek 4	982
Ernest 1 ✓	1002
Lilly 1 ✓	1003
Cliona ✓	1238
Lor ✓	1240
Ang ✓	1239
Rocky ✓	1241
Harriet ✓	1242
Nancy ✓	1243
Toucan ✓	1244

Location and Access

The property is situated approximately 6 to 13 kilometers southeast of the town of Likely, British Columbia. Likely is some eighty-three kilometers from One Hundred and Fifty Mile House by a good partially paved gravel road. The ROX GROUP is accessible throughout its entire length by a good partially paved gravel road from Likely which leads to Cedar Creek dam at the southern end of the property (Figure 1).

History

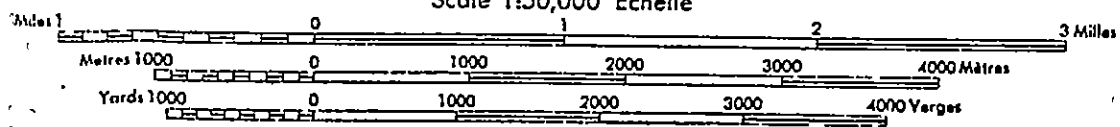
Cedar Creek was initially prospected in 1862 and subsequently worked intermittently for placer gold from 1865 until the present day. The early years were



CARIBOO LAND DISTRICT
BRITISH COLUMBIA

FIGURE 1
ROX GROUP

Scale 1:50,000 Échelle



CONTOUR INTERVAL 50 FEET
Elevations in Feet above Mean Sea Level
North American Datum 1927
Transverse Mercator Projection

most productive until the turn of the century when production and interest declined. In 1921 finds of placer gold on Cedar Creek's upper benches in good paying quantities created a new gold rush to the area. Coincident with the rediscovery of placer gold was the examination of local bedrock for the lode source of the placer finds. In 1922 John Creagh discovered and worked auriferous poly-metallic structures in Cedar Creek canyon (Wonder Group). Samples from the Creagh showing were assayed resulting in economic values. In 1933 Creagh's Wonder Group was optioned by Premier Gold Mining Company Limited whose investigations resulted in the dropping of the option the following year.

In 1979 the former Wonder Group showing was rediscovered by R. Cook with subsequent exploration mapping and sampling of the showing and the local host volcanics. Good auriferous polymetallic values were obtained.

In June 1981 a limited diamond drill survey was performed to test the continuity of the Cedar Creek canyon polymetallic showing at depth (Figure 2).

Summary of Work Performed

Diamond drilling was performed from the 2nd to the 20th of June 1981 using a JKS Winkie diamond drill with a 2.5 centimeter (1 inch) diameter core capacity.

Two holes were drilled from the same staging, hole DCC-1 at -40° and hole DCC-2 at -50° , both holes were collared at the same 833 meter elevation and drilled at azimuth 340° (Figure 3). Drill hole DCC-1 was terminated at 9.9 meters depth by the shearing and loss of a bit downhole. Drill hole DCC-2 was terminated at 21.2 meters depth due to difficult drilling and the belief that the projection of outcropped mineralization had been tested at depth.

Core Storage

Split core is stored at the residence of R. Cook in Calgary, Alberta.

II. RESULTS

Diamond drill reports and a certificate of assay are appended.

Diamond drill holes DCC-1 and DCC-2 because of their proximity and similar geology will be described collectively.

The host lithology is mainly porphyritic andesitic volcanics. The andesites are in part amygdaloidal dependent on the proximity to the chill margins of the lava flows, mainly medium to dark green in colour and medium to finely crystalline

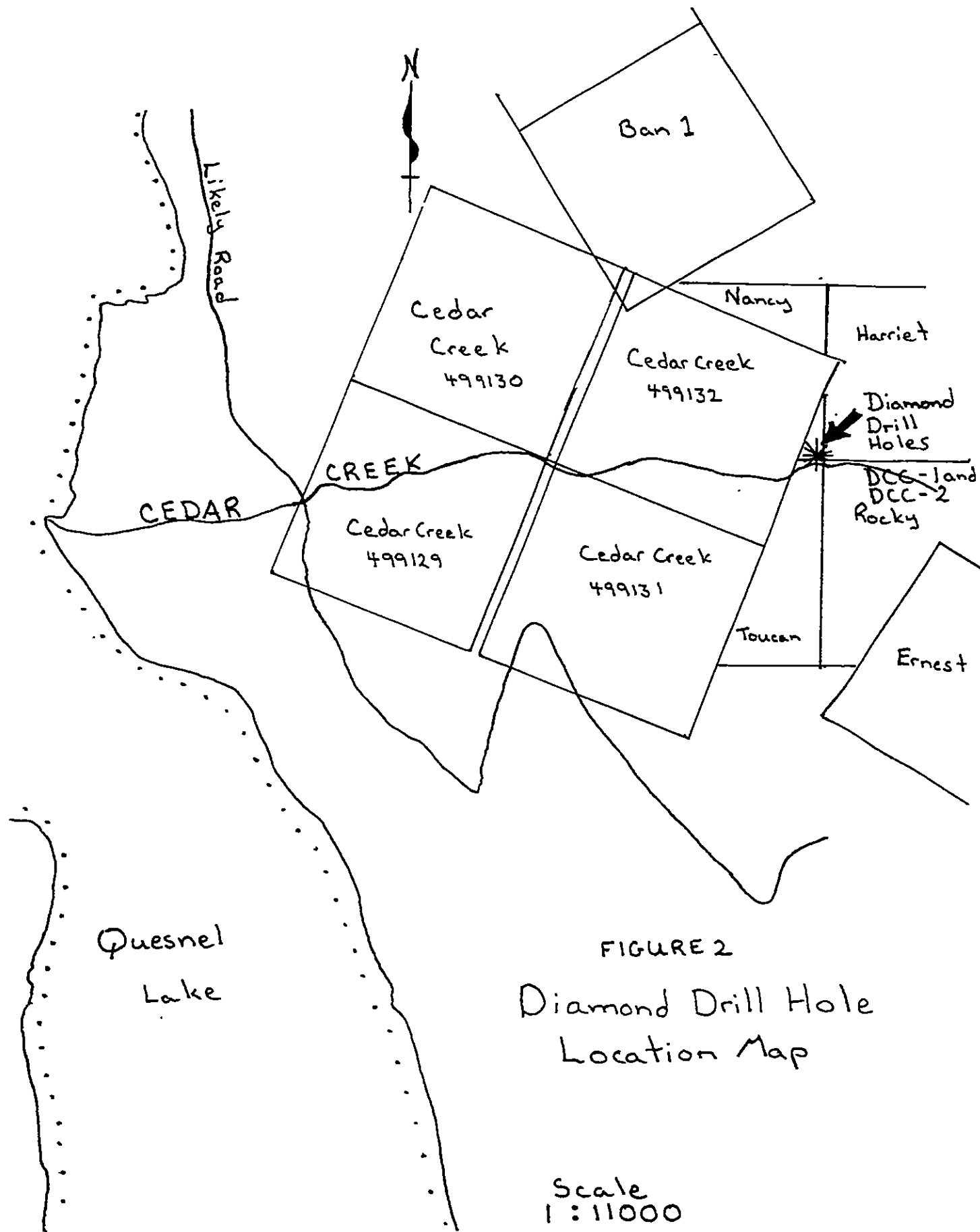
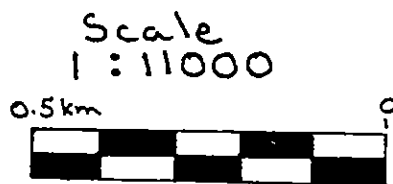
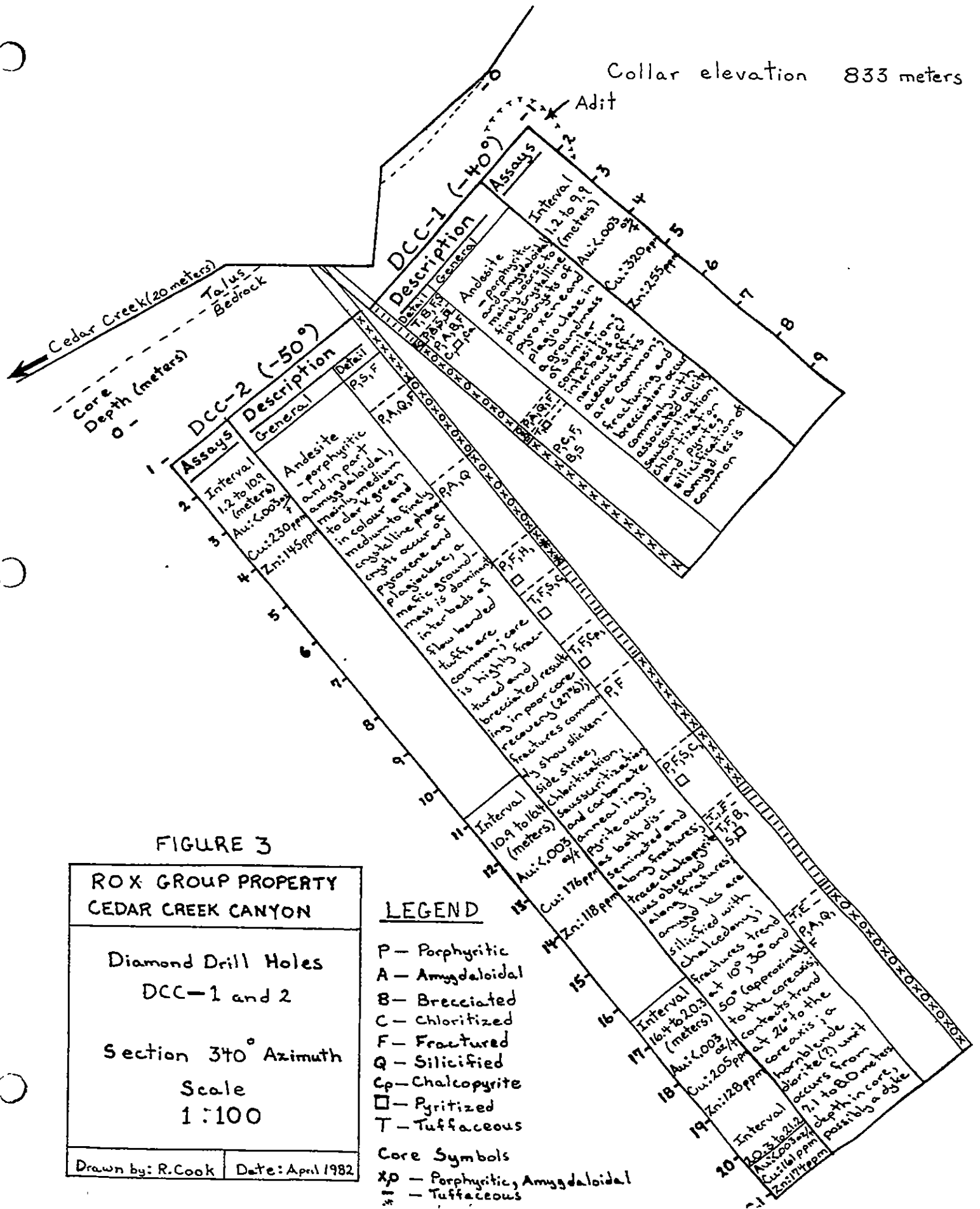


FIGURE 2
Diamond Drill Hole
Location Map



Collar elevation 833 meters



phenocrysts occur of pyroxene and plagioclase in a groundmass of similar composition. Interbeds of finely crystalline flowbanded welded tuffs are common. The core is highly fractured and brecciated throughout resulting in very poor core recovery (27%). Fractures characteristically show slickenside striae, chloritization, saussuritization and carbonate annealing by calcite and dolomite. Fractures trend at 10° , 30° and 50° (approximately) to the core axis while lithologic contacts are at 26° . Amygdules are silicified with chalcedony as are some associated hairline fractures and a pink colouration suggests slight felsitization. In core DCC-2 at approximately 8.0 meters depth hornblende phenocrysts commonly occur suggesting a narrow hornblende diorite dyke.

The mineralization of the cores is sparse with pyrite and pyrrhotite occurring as disseminations and along fractures. Trace chalcopyrite was observed in carbonate annealed fractures.

Assays obtained were the result of rock flour analysis collected continuously in conjunction with the coring. Assay results are disappointingly low when compared to the anomalously high auriferous polymetallic values of the overlying outcrop.

III. INTERPRETATION

Strong alteration and frequent fracturing of the host volcanics has resulted in the difficult drilling, poor recovery and inconclusive interpretation of cored results from drill holes DCC-1 and DCC-2.

The general composition of the cored andesites is identical to that exposed along Cedar Creek canyon to the east and west although less competent, more highly altered and much more frequently fractured and brecciated. Fractures intersected in coring of 10° , 30° and 50° (approximately) to the core axis coincide with the three sets of structural attitudes predominant in outcrop; 1. a north 50 to 70 degrees east trend dipping between 50 to 65 degrees south-east, 2. a north 25 to 70 degrees west trend dipping between 30 to 76 degrees northeast and 3. a north 55 to 65 degrees east trend dipping between 35 to 65 degrees northwest. The first trend parallels the main zones of polymetallic mineralization, the second set of attitudes parallels the regional trend and zones of lithologic contact, the last trend corresponds to the tension fractures associated with the regional trend. All three sets of trends were observed in the cored volcanics although none indicated strong auriferous-base metal associations.

The substantial chloritization, saussuritization and carbonate deposition along fractures coupled with the silicification and felsitization(?) of amygdules observed in the core suggests the migration of both hydrothermal and low temperature solutions in large quantities. The drill hole assays demonstrate very low values in gold and base metals when compared to the economic values of the adjacent polymetallic showing. The metallic concentrations of the main showing are however podiform in nature with adjacent hostrock possessing very low values characteristic of leached host volcanics and abundant barren alteration minerals, the latter characteristics exist in the drill core. A base metal trend, although slight, exists in the drill core with copper and to a lesser extent zinc values decreasing downsection away from the surface polymetallic occurrences.

The presence of hornblende diorite dyke exposed to the east of the polymetallic showing and intersected in core DCC-2 at 8.0 meters depth suggests a local heat source for the generation of metal bearing hydrothermal solutions and associated hostrock alteration.

IV. CONCLUSIONS

1. Anomalously high gold, copper and zinc values were not obtained from the exploration drill holes DCC-1 and DCC-2.
2. Economic auriferous polymetallic deposits exposed in local outcrop were not detected at depth due to their elimination by; (a) erosion and obscured position by talus coverage, (b) structural termination either by fault offset and/or folding, (c) lack of ore mineral persistence below the exposed structural position on the north slope of Cedar Creek canyon.
3. Uncharacteristically strong alteration, fracturing and brecciation occur within the drilled hostrock, features uncommon to the massive andesites exposed to the east and west of the main showing.
4. The disappointing assay results and lack of sulphides from drill cores DCC-1 and DCC-2 are taken in the context of a highly faulted and altered locality where information on structural and geochemical controls must be understood prior to dismissing the exposed mineralizations persistence. Further work is therefore clearly warranted.

APPENDIX I

COST STATEMENT - ROX GROUP

Exploration expenditures from June 3, 1981 to June 19, 1981

<u>Name</u>	<u>Work</u>	<u>Dates Worked</u>	<u>No. of Days</u>	<u>Salary/Day</u>	<u>Value</u>
R. Cook	Geologist, part-time driller	June 3 to 19	17	200	3400
H. C. Cook	Drillers helper, Expeditor	June 3 to 19	17	125	2125
H. Cook	Cook	June 3 to 19	17	100	1700
S. Moore	Drillers helper	June 3 to 7	4	125	500
S. Stonard	Part-time driller	June 11 to 19	9	125	<u>1125</u>
				Subtotal	8850

GENERAL EXPENSES

Accommodation (17 days @ \$16.00/day)	272
Food (\$12.00/man/day)	768
Transportation (truck rental)	300
Drill costs (gas, oil, 4 bits-IEX, 1 shoe-EW, 3 drill rods 10)	1040
Assays	60
Report compilation (5 days @ 150/day)	<u>750</u>
Subtotal	3120

TOTAL: 12040

Raymond A. Cook

LR

DETAILED LABOUR STATEMENT

June 3, 1981

Prepared Cedar Creek Canyon
diamond drill site, trenching
*4mx3.3mx2.7m - 10 hrs
2 men - 10 hrs

June 4, 1981

Walked in diamond drill,
pumps(3 hp + 5 hp), hose, tools - 10 hrs
3 men - 10 hrs

June 5, 1981

Walked in drill rods (60 meters),
casing (20 meters), bits, grease, spare
parts, tools, fuel - 9hrs
3 men - 9 hrs

June 6, 1981

Staging built, setup drill, pumps, - 2 1/2 hrs
Drill ahead casing (1 1/2 meters) - 1 hr
Drill ahead DCC-1 at - 40° (2.7 meters) - 4 1/2 hrs
3 men - 8 hrs

June 7, 1981

Drill DCC-1 (5.7 meters) - 10 hrs
Bit cut, fish for bit - 2 hrs
Fuel, oil carried in
3 men - 12 hrs

June 8, 1981

Fish for bit - 8 hrs
Abandoned DCC-1, reset staging
-50° to drill DCC-2 - 4 hrs
2 men - 12 hrs

June 9, 1981

Drill ahead casing (1 1/2 meters) - 1 1/2 hrs
Drill ahead DCC-2 (3 meters) - 8 hrs
2 men - 9 1/2 hrs

June 10, 1981

Drill ahead DCC-2 (4.6 meters) - 11 hrs
2 men - 11 hrs

June 11, 1981

Carburator, gasket repairs, changed over
and broke in new motor - 11 hrs
2 men - 11 hrs

June 12, 1981

Drill ahead DCC-2(4.2 meters) -
10 hrs
2 men - 10 hrs

June 13, 1981

Drill ahead DCC-2 (3.9 meters) -
9 1/2 hrs
Expedite fuel, oil grease
3 men - 9 1/2 hrs

June 14, 1981

Drill ahead DCC-2 (1.1 meters) -
2 hrs
Bit cut, fish for bit - 7 1/2 hrs
2 men - 9 1/2 hrs

June 15, 1981

Fish for bit, retrieved - 5 1/2 hrs
Drill DCC-2 (1.3 meters) -3 hrs
2 men - 8 1/2 hrs

June 16, 1981

Drill ahead DCC-2 (1.6 meters) -
end hole - 3 1/2 hrs
Breakdown equipment to move -
6 1/2 hrs
3 men - 10 hrs

June 17, 1981

Walked out ; drill, pumps, tools -
8 1/2 hrs
3 men - 8 1/2 hrs

June 18, 1981

Walked out; rods, casing, tripod,
tools, hose - 9 1/2 hrs
3 men - 9 1/2 hrs

June 19, 1981

Walked out; grease, oil, tools,
cleaned site, burned and buried
garbage - 7 hrs
3 men - 7 hrs

Access to the Cedar Creek diamond drill site was by a steep winding
1.6 kilometer pathway that includes an elevation change of 155 meters.

* Times approximated

APPENDIX II
Qualifications

I, Raymond A. Cook have been practising my trade as a geologist since 1973.

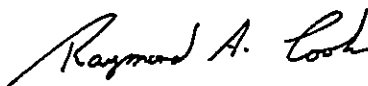
I am an honours B.Sc., in Geology from the University of Alberta, Edmonton 1973 and an M.Sc., Geology from the University of British Columbia, Vancouver.

In applying my profession I have worked with Eldorado Nuclear, Cominco, Terra Mines Ltd., Union Carbide and Crowdis Oil Consultants in mineral and oil-gas exploration and underground development.

I have worked on research projects in geology for the University of Alberta, Edmonton, Alberta and the University of British Columbia, Vancouver, British Columbia.

I have worked privately on interests of my own in British Columbia and the Northwest Territories since 1975.

I hold interest in the property described in this report and I supervised and directed all exploration activity.



Raymond A. Cook, B.Sc., M.Sc., Geology

DIAMOND DRILL LOG

LAT/LONG: 52°35' / 120°31' 12"	PROPERTY: ROX GROUP	RECOVERY: 25%
DIP: -40°	HOLE NO: DCC-1	LOGGED BY: R. Cook
ELEVATION: 833 meters	COMMENCED: June 3	Page 1 of 2
AZIMUTH: 340°	FINISHED: June 7	

DEPTH (meters)	DESCRIPTION	SAMPLE No.	FROM	TO	DIFF Kidd's	ASSAYS
0 to 1.2	Casing set					
1.2 to 2.4	Andesite- Tuffaceous, slightly porphyritic, finely crystalline phenocrysts of pyroxene and plagioclase; groundmass 80%; massive; fairly abundant fracturing, annealed by calcite calcite; saussurization is common adjacent fractures; brecciation associated with frac- tures; trace pyrite along fractures.	DCC-1 0-20	1.2	9.9	8.7	Cu:320 ppm,Zn:255ppm Au:< .003 oz/ton
2.4 to 2.5	Andesite- Porphyritic, amygdaloidal, light to medium green; coarse to finely crystalline plagioclase and pyroxene phenocrysts; abundant silicification and slight felsitization; minor occurrences of fracturing; trace pyrite.					<i>Handwritten signature</i>
2.5 to 5.2	Andesite- Medium to dark green; generally as above; increased fracturing and brecciation annealed mainly by calcite; fair chloritization throughout and slickenside striae along fracture planes; trace to fair pyrite along fractures.					

DIAMOND DRILL LOG

LAT/LONG: 52°35' 6"/120°31' 12"	PROPERTY: ROX GROUP	RECOVERY: 27%
DIP: -50°	HOLE NO: DCC-2	LOGGED BY: R. Cook
ELEVATION: 833 meters	COMMENCED: June 8	Page 1 of 3
AZIMUTH: 340°	FINISHED: June 19	

DEPTH (meters)	DESCRIPTION	SAMPLE No.	FROM	TO	DIFF (meters)	ASSAYS
0 to 1.2	Casing set					
1.2 to 3.0	Andesite- Porphyritic; medium to dark green; medium to finely crystalline phenocrysts of augite and plagioclase, porphyritic texture; minor chlorite along fractures; saussuritization of host rock is common adjacent fractures; fractures have slickenside striae annealed by calcite; massive; trace pyrite.	DCC-2.0-36	1.2	10.9	9.7	Cu: 230ppm; Zn: 145ppm Au: < .003 oz/ton
3.0 to 5.0	Andesite- Amygdaloidal; medium to dark green; generally as above with amygdules exhibiting silicification (chalcedony) and felsitization (pink colouration); abundant hairline fractures annealed by calcite; trace chalcopryrite.					
5.0 to 7.1	Andesite- Amygdaloidal with increased silicification and felsitization of hostrock; pyroxene and plagioclase phenocrysts are increasing in size and abundance.					
7.1 to 8.0	Andesite- Medium green; alteration of pyroxene; abundant hornblende phenocrysts; minor pyrite.					

R. Cook
1988

DIAMOND DRILL LOG

LAT/LONG: 52°35' 6"/120°31' 12"	PROPERTY: ROX GROUP	RECOVERY: 27%
DIP: -50°	HOLE NO: DCC-2	LOGGED BY: R. Cook
ELEVATION: 833 meters	COMMENCED: June 8	Page 2 of 3
AZIMUTH: 340°	FINISHED: June 19	

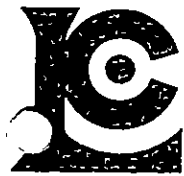
DEPTH (meters)	DESCRIPTION	SAMPLE No	FROM	TO	DIFF (width)	ASSAYS
8.0 to 9.3	Andesite- Mainly tuffaceous; medium green; only finely crystalline phenocrysts are present, groundmass 90%; increased disseminated pyrite; increased fracturing with saussuritization and chloritization common.					
9.3 to 10.5	Andesite- Abundant calcite annealed hairline fractures; slight saussuritization of contacts; increasing felsitization and slight silicification; fair disseminated pyrite; trace chalcopyrite in fractures; fractures are mainly at 10° and 55° to core axis.					
10.5 to 12.5	Andesite- Porphyritic, medium to dark green; abundant medium to finely crystalline pyroxene and plagioclase phenocrysts; pyroxene has reaction rimming; trace disseminated pyrite; minor calcite annealed fractures.	DCC-2 36-54	10.9	16.4	5.5	Cu: 176ppm; Zn: 118ppm Au: <.003 oz/ton
12.5 to 14.0	Andesite- light to medium green; generally as above with abundant calcite in fractures; fair saussuritization; minor but increased brecciation; fair patchy chloritization; trace to minor disseminated pyrite.					

R. Cook

DIAMOND DRILL LOG

LAT/LONG: 52°35'6"/120°31'12"		PROPERTY: ROX GROUP			RECOVERY: 27%	
DIP: - 50°		HOLE NO: DCC-2			LOGGED BY: R. Cook	
ELEVATION: 833 meters		COMMENCED: June 8			Page 3 of 3	
AZIMUTH: 340°		FINISHED: June 19, 1981				
DEPTH (meters)	DESCRIPTION	SAMPLE No	FROM	TO	DIFF. (meters)	ASSAYS
14.0 to 14.2	Andesite- Tuffaceous; weakly porphyritic; medium to dark green; fine to very finely crystalline; phenocrysts of dark green pyroxene and white plagioclase; ground mass dominant at 90% with salt and pepper colouration; massive; minor fractures and trace pyrite.					
14.2 to 16.7	Andesite - Tuffaceous; light to medium green; finely crystalline; abundant calcite along fractures and fair brecciation; strong saussurtization of fractures; trace to minor pyrite along fractures. Lithologic contact at 26° to core axis; fractures at 55 and 30 degrees to core axis.	DCC-2 54-67	16.4	20.3	3.9	Cu; 205ppm; Zn; 128ppm Au: < .003 oz/ton
16.7 to 16.9	Andesite- Mainly tuffaceous; medium to dark green; fine to very finely crystalline phenocrysts of pyroxene and plagioclase in dominant 70% groundmass; minor to fair calcite along fractures; trace pyrite.					
16.9 to 21.2	Andesite- Porphyritic and amygdaloidal; light to medium green; coarse to very finely crystalline; phenocrysts of altered pyroxene and plagioclase; amygdules silicified.	DCC-2 67-70	20.3	21.2	0.9	Cu: 161ppm; Zn: 174ppm Au: .003 oz/ton

Raymond A. Cook



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CERTIFICATE OF ANALYSIS

TO : COOK, RAY
#7-3843 W. 4TH AVE.
VANCOUVER, B.C.
V6R 1P8

CERT. # : A8113323-001-A
INVOICE # : 18113323
DATE : 04-SEP-81
P.O. # : NONE

Sample description	Prep code	Cu ppm	Zn ppm				
DCC-1-0-20	207	320	255	--	--	--	--
DCC-2-0-36	207	230	145	--	--	--	--
DCC-2-36-54	207	176	118	--	--	--	--
DCC-2-54-67	207	205	128	--	--	--	--
DCC-2-67-70	207	161	174	--	--	--	--

Raymond A. Cook



Certified by *Hart S. ...*



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CERTIFICATE OF ASSAY

TO : COOK, RAY
#7-3843 W. 4TH AVE.
VANCOUVER, B.C.
V6R 1P8

CERT. # : A811 3323-001-A
INVOICE # : 1811 3323
DATE : 04-SEP-81
P.O. # : NONE

Sample description	Prep code	Au oz/t					
DCC-1-0-20	207	<0.003	--	--	--	--	--
DCC-2-0-36	207	<0.003	--	--	--	--	--
DCC-2-36-54	207	<0.003	--	--	--	--	--
DCC-2-54-67	207	<0.003	--	--	--	--	--
DCC-2-67-70	207	<0.003	--	--	--	--	--

Raymond A. Cook

R. Swait

.....
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