# ARIS SUMMARY SHEET

istrict Geologist, Kamloops

Off Confidential: 92.08.21

ASSESSMENT REPORT 21923

MINING DIVISION: Osoyoos

\_ROPERTY:

Oka

LAT

49 48 00

119 55 00 LONG

11 5520257 290113 UTM

082E13W NTS

CLAIM(S): OPERATOR(S): Fairfield Min.

Oka 8,0ka 13-15

UTHOR(S):

EPORT YEAR:

Rowe, J. 1991, 23 Pages

KEYWORDS:

LOCATION:

Triassic, Nicola Group, Limestones, Andesites, Skarns

MORK

ONE:

Prospecting

100.0 ha PROS

**************************************	and the second section of the second		
-		- Anna Dave de la lacia (12 ha mai ci a ca pièce	-
	- Anni Posta A April	and the state of t	magnatura di palaban di 1986, kaj landaja ministra paradistika di 1989 Dina kaj kaj palaban di samanian

# 1991 PROSPECTING REPORT

### On the OKA PROPERTY

Osoyoos Mining Division, B.C. NTS: 82E/13W; Lat 49 Deg.48'N; Long 119 Deg.55'W

DECEMBER, 1991 (BC Assessment)

### REPORT DISTRIBUTION

- Government	2
- Fairfield Minerals Ltd.	1
- Field	1
- Cordilleran Engineering Ltd.	1 (Original)
mo+al.	5

GEOLOGICAL BRANCH ASSESSMENT REPORT

21,923

### 1991 PROSPECTING REPORT

### ON THE OKA PROPERTY

Osoyoos Mining Division, B.C.
Latitude 49 degrees 48'N; Longitude 119 degrees 55'W
NTS: 82E/13W

For

FAIRFIELD MINERALS LTD.
Vancouver, British Columbia

ву

J. D. Rowe, B.Sc. Geologist

CORDILLERAN ENGINEERING LTD. 1980-1055 W. Hastings St. Vancouver, B.C. V6E 2E9

December, 1991

# TABLE OF CONTENTS

		Page
1.0	SUMMARY AND CONCLUSIONS	rag
2.0	RECOMMENDATIONS	3
3.0	INTRODUCTION	4
	3.1 Location and Physiography	4
	3.2 Claim Data	4
	3.3 History	7
	3.4 1990-91 Exploration Program	8
4.0	GEOLOGY	9
	4.1 Regional Geology	9
	4.2 Property Geology and Mineralization	9
	4.3 Prospecting and Rock Sampling	11
5.0	PERSONNEL	15
6.0	STATEMENT OF EXPENDITURES	16
7.0	REFERENCES	17
8.0	STATEMENT OF QUALIFICATIONS	18
9.0	ANALYTICAL RESULTS	19
	FIGURES	
Figure 1	Property Location Map	5
Figure 2	Claim Map and Rock Sample Loctions	6
Figure 3	Regional Geology	10
Figure 4	Rock Sample Locations	12
11quie 3	Noch bample Hocacions	12
	<u>TABLES</u>	
Table 1	Claim Status as at December 1991	7
Table 2	Reconnaissance Rock Samples	14

The Oka property, located 6 km west of Peachland, B.C., comprises 18 claims (190 units) in the Osoyoos Mining Division. The claims, acquired in 1986 and 1990, are owned 100 percent by Fairfield Minerals Ltd. Exploration, managed by Cordilleran Engineering Ltd., targetted gold-bearing veins in intrusive, volcanic and sedimentary units.

The Headwater Lakes road transects the property providing good access. The claims cover an easterly-trending ridge with abundant outcrop at higher elevations decreasing to minor exposure in valley bottoms.

Previous work dates back to 1898, when shafts and tunnels were dug on quartz veins in search of gold on the present western claims. Later work in that area tested for porphyry copper and molybdenum. On the central claims skarn-hosted Cu-Zn-Au in massive sulphides was explored intermittently from the 1930's. From 1986 to 1988 Fairfield focussed on gold exploration in five areas of the property. Work included soil geochemistry, geophysical surveys, trenching, rock sampling, mapping and reverse circulation drilling of 6000 metres in 44 holes.

The central and eastern claims are underlain by Upper Triassic Nicola Group volcanic and sedimentary units. These are intruded by Triassic/Jurassic granodiorite of the Pennask batholith. Some of the sedimentary units have been metasomatized to hornfels and garnet-rich skarn.

Gold mineralization occurs in several different modes, including massive sulphide lenses, sulphide-poor garnetite skarn, pyritic bleached diorite, quartz-arsenopyrite veins and as fine disseminated native gold in marble. Narrow, high grade zones have been identified by drilling, with up to 0.54 oz/ton Au over 1.5 m, and by chip sampling in trenches, returning up to 1.12 oz/ton Au over 1.5 m. Continuity of these zones has yet to be tested.

A prospecting program totalling 7 mandays was undertaken in 1990 and 1991 to evaluate areas of anomalous gold in soils and known quartz vein showings. Nineteen selected grab samples were collected from quartz vein outcrops and float. Quartz veins are locally boxworked with disseminated limonite or sparse pyrite, arsenopyrite, hematite, minor chalcopyrite or molybdenite. The samples returned one significant gold value of 1310 ppb (0.038 oz/ton). Several of the other samples had elevated silver values, up to 103.7 ppm Ag (3.02 oz/ton). Gold is often coincident with arsenopyrite and other sulphide minerals, therefore, base metal analyses may help define veins with higher gold potential.

The wide distribution and varied styles of gold occurrences and extensive soil geochemical anomalies indicate good potential for the discovery of an economic gold deposit on the Oka property. The most favourable targets at this time are narrow, high grade intercepts from reverse circulation drill holes and gold-bearing quartz-arsenopyrite veins in surface showings. Further exploration is definitely warranted.

#### RECOMMENDATIONS

As recommended in the 1988 Oka assessment report, 6 diamond drill holes totalling 1100 metres are proposed to test for gold-bearing structures in the three areas where reverse circulation drill holes intersected high grade gold values over widths of 1.5 metres.

Prospecting should be continued to evaluate all untested areas of anomalous gold soil geochemistry.

Trenching may be warranted to expose and sample bedrock in areas of mineralized float or outcrop discovered during prospecting.

Rock samples should be analyzed for base metals as well as gold and silver to determine mineral associations and possible metal zoning.

Respectfully submitted

CORDILLERAN ENGINEERING LTD.

J. D. Rowe, B.Sc.

Geologist

JDR/z December, 1991

### INTRODUCTION

#### 3.1 LOCATION AND PHYSIOGRAPHY (Figure 1)

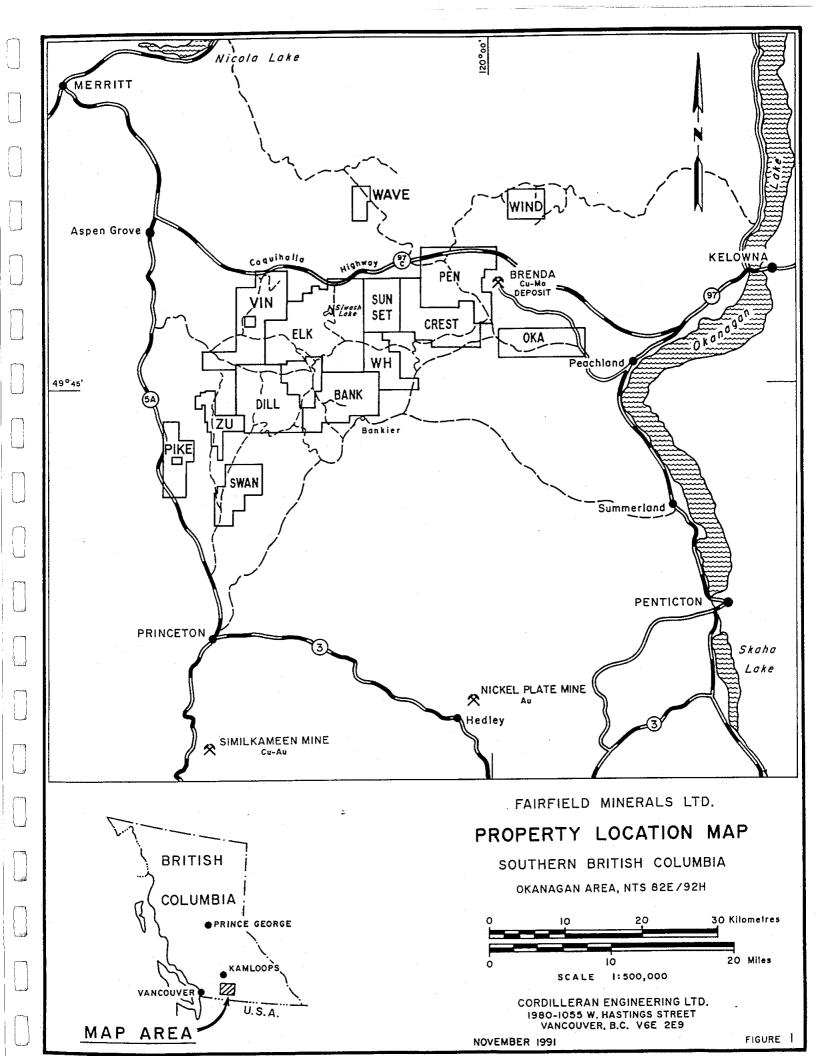
The Oka property is located 6 kilometres west of Peachland in south-central British Columbia (Figure 1). It is centered on latitude 49 degrees 48'N and longitude 119 degrees 55'W within NTS map area 82E/13W. Access to the property is via the Brenda mine road west 11 km from Peachland and then via the Headwater Lakes road which traverses the claims. A new logging road, completed in 1991, extends from Km 12 on the Headwater Lakes road north across the property and westerly near the northern claim boundary.

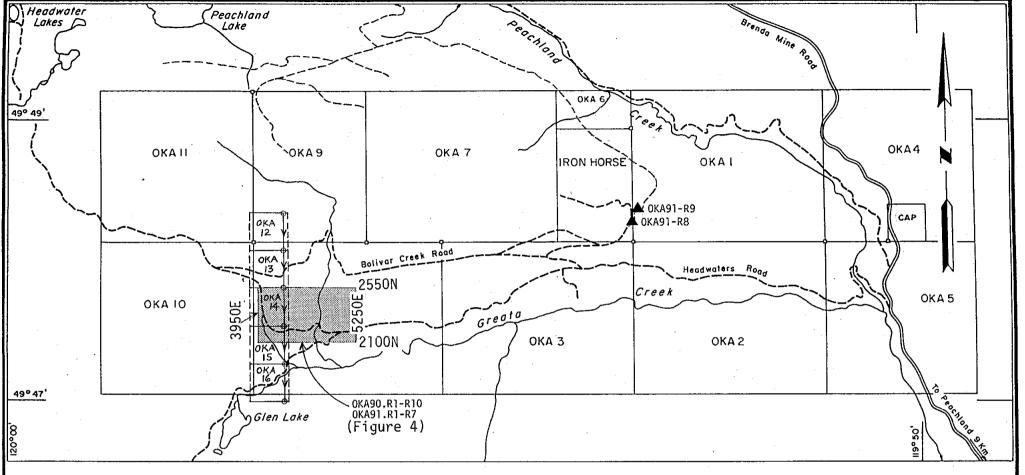
The property is on the eastern edge of the Trepanege Plateau and straddles an easterly-trending ridge flanked to the north and south by Peachland and Greata Creeks. Elevations range from 900m to 1500m asl. Bedrock exposure is generally greater than thirty percent on steep slopes near the ridge top but is very restricted at lower elevations.

Forest cover on south-facing slopes is mostly mature Ponderosa pine with interspersed grassy patches, except on the western claims where dense conifer patches occupy an area burned by forest fire. North-facing slopes are also moderately densely forested by pine, fir, spruce and balsam. A few plots are currently being clear-cut logged on the northern claims. Annual temperatures range from -20 to 30 degrees C. and precipitation is low. The area is basically snow-free from mid May through October.

#### 3.2 CLAIM DATA (Figure 2)

The current claim status is indicated in Table 1, and their locations are shown on Figure 2. The Oka claims were staked in March, 1986 and September, 1990. The Cap and Iron Horse claims were purchased in 1986. All are located in the Osoyoos Mining Division and owned 100 percent by Fairfield Minerals Ltd.





LEGEND

☐ Legal Corner Post of 4-Post Mineral Claim(s)

c→ O Initial and Final Posts, Location Line Direction of 2-Post Mineral Claim(s)

CAP Claim Name

-3950E- Grid Line Number

▲ Rock Sample Site

Area of Detailed Rock Sampling

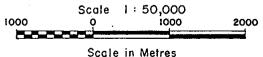
Note: - Rock Sample Descriptions/Results are given in Table 2 of Text

- Individual Rock Sample Locations within Area of Detailed Sampling are shown on Figure 4.

FAIRFIELD MINERALS LTD.
OKA PROPERTY

CLAIM MAP AND ROCK SAMPLE LOCATIONS

N.T.S. 82E/13W OSOYOOS MINING DIVISION, B.C.



November 1991

FIGURE 2

Table 1: Claim Status as at December, 1991
Oka Property: Osoyoos Mining Division, British Columbia

CLAIM	<u>UNITS</u>	RECORD NO.	EXPIRY DATE
OKA 1	20	2400	25 MAR. 1995
OKA 2	20	2401	25 MAR. 1995
OKA 3	20	2402	25 MAR. 1995
OKA 4	16	2403	25 MAR. 1995
oka 5	16	2404	25 MAR. 1995
OKA 6	2	2405	25 MAR. 1995
oka 7	20	2406	25 MAR. 1995
OKA 8	20	2407	25 MAR. 1995
oka 9	12	2408	25 MAR. 1995
OKA 10	16	2409	25 MAR. 1995
OKA 11	16	2410	25 MAR. 1995
OKA 12	2-post	3503	24 SEP. 1996
oka 13	2-post	3504	24 SEP. 1996
OKA 14	2-post	3505	24 SEP. 1996
OKA 15	2-post	3506	24 SEP. 1996
OKA 16	2-post	3507	24 SEP. 1996
CAP	1	118	28 SEP. 1998
IRON HORSE		1771	2 JUN. 1995
18 Claims	185 Units		
	+ 5 2-Post claims		

#### 3.3 HISTORY

The earliest reported work within the area of the Oka claims was in 1898 on the Silver King and Alma Mater properties at the west end of the present claim block. Three shallow shafts and one deeper one (76 m) were sunk and four adits (to 70 m) with one crosscut (58 m) were driven in intrusive rocks. The target was "free milling" gold, however, there is no record of any gold being recovered. In more recent years this area has been mapped (1965), soil sampled (1967) and diamond drilled (4 holes, 1979). A porphyry copper/molybdenum deposit was the objective of the later work.

The Iron Horse claim, near the center of the present property, has been another focus of activity which began in the 1930's. The area has been variably mapped, trenched, sampled and geophysically surveyed; an unknown number of holes were drilled in 1956.

A third area to receive previous work is now covered by the Cap and Oka 4 claims. Exploration activity included mapping, trenching, diamond drilling (? holes, 1965), soil sampling and a magnetometer survey.

Skarn-hosted Cu-Zn massive sulphides were the targets on the Iron Horse and Cap claims.

Other areas within the present property were variously prospected, soil sampled and geophysically surveyed during the late 1960's and early 1970's.

Recent work has focussed on gold. In 1986, a program of linecutting, soil sampling, prospecting and reconnaissance mapping was carried out. A number of large gold soil geochemical anomalies were defined; prospecting of some of these revealed that higher gold values are associated with skarn and massive sulphide zones.

The 1987 program consisted of detailed grid soil sampling, a magnetometer survey over the Iron Horse area and extensive backhoe stripping and trenching with associated detailed mapping and rock chip sampling. The excavating and rock sampling revealed gold in skarns, diorite dykes and quartz veins in four widely separated areas on the property.

In 1988, 6000 metres of reverse circulation drilling in 44 holes was completed in five areas of the property. Magnetometer and VLF-EM surveys totalling 41 km covered a large part of the property and local detailed geochemical sampling and prospecting were undertaken. The drilling returned significant gold assays over five foot widths in three of the areas, indicating potential for narrow, high grade gold-bearing veins. Elevated gold values were also found to be associated with diorite-skarn contacts.

In 1990, five 2-post claims, (Oka 12-16) were staked to cover a strip of open ground within the original claim block developed upon expiry of a previously staked claim.

### 3.4 1990-91 EXPLORATION PROGRAM

Following staking of the Oka 12-16 claims in September, 1990, three mandays of prospecting was undertaken in the area of this new ground. Soil geochemical gold anomalies were evaluated and quartz vein showings were sampled. In August, 1991, four mandays were spent further evaluating this area and also prospecting a new logging road crossing the northern part of the property. A total of nineteen reconnaissance rock samples were collected and analyzed for gold and silver.

GEOLOGY

### 4.1 REGIONAL GEOLOGY (Figure 3)

The Oka property geology is illustrated on the northwest corner of G.S.C. Map 15-1961, Kettle River, mapped by Dr. H. W. Little, (1958-59) and condensed on Figure 3. The property is underlain by pendants of sedimentary and volcanic rocks of the Upper Triassic Nicola Group which are cut by Triassic to Jurassic age Nelson plutonic rocks. East of the property both intrusive and Nicola group rocks are covered by large areas of Eocene/Oligocene volcanic flows. Seven kilometres to the northwest the Brenda Mine open pit is located on a large porphyry copper-molybdenum system in Triassic/Jurassic granitic rocks.

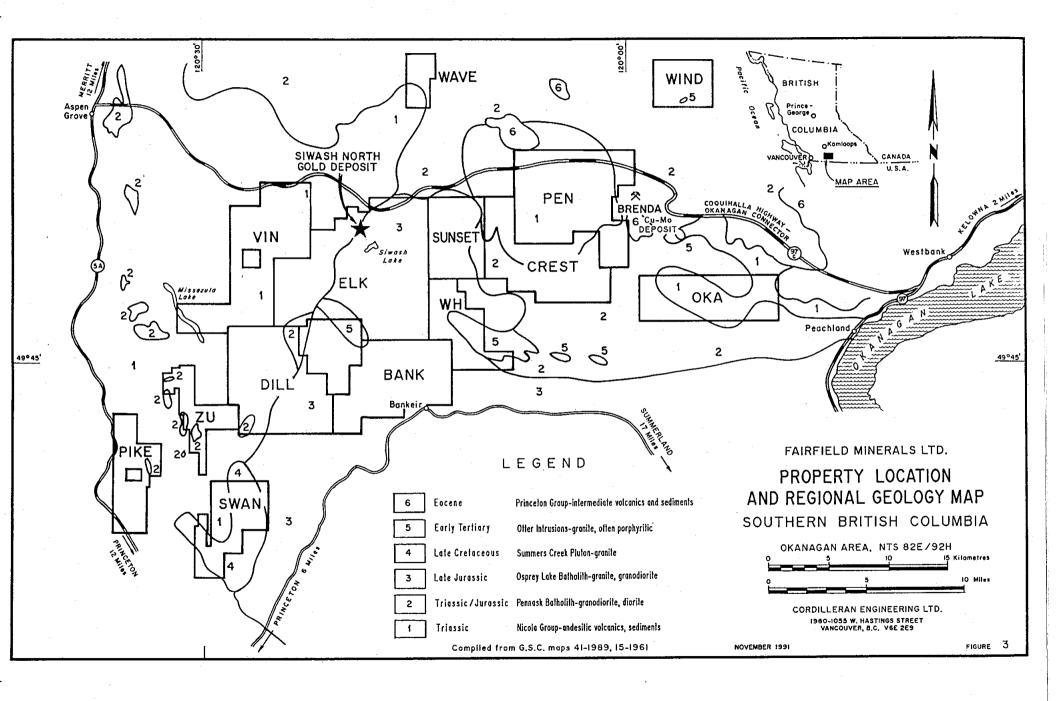
### 4.2 PROPERTY GEOLOGY AND MINERALIZATION

A brief summary of the property geology and mineralization is given below. More detailed descriptions of the lithologies are given in earlier assessment reports.

Pendants of Upper Triassic Nicola Group rocks underlie the central and eastern parts of the property. Nicola Group rocks include limestone, clastic sediments and intermediate to basic volcanic rocks. Carbonate horizons have been variably recrystallized to marble and metasomatized to skarn at, or near, intrusive contacts.

In the central claims Nicola rocks consist predominantly of limestone, skarn and narrow argillite beds. To the west Upper (?) Nicola Group lithologies consist mainly of andesitic to dacitic volcanics with minor interbeds of argillaceous rock. These units are largely hornfelsed with minor development of calc-silicate minerals. On the eastern claims Nicola Group consists of interbedded limestone, sedimentary and volcanic rocks. Skarn and hornfels zones are locally developed.

Lower Jurassic(?) diorite and andesite dykes and sills cut the pendant rocks at several localities. They are most numerous in the central area where they may be swarming outwards from a small source stock of quartz diorite.



The southwest, southeast and north-central portions of the property are underlain by plutonic rocks of Late Triassic to Early Jurassic age, predominantly diorite to granodiorite in composition.

strong fracturing and jointing are evident in brittle hornfelsed rocks and folding has been observed locally in carbonate exposures. Northeast-trending structures are common, and quartz veins seen in outcrops often have this same orientation.

Gold mineralization has been located in a number of areas on the property and occurs in several different modes. It is found in massive sulphide lenses, in sulphide-poor garnetite skarn, in pyritic, bleached diorite and in quartz-arsenopyrite veins. Fine visible gold has been identified in marble containing minor disseminated arsenopyrite.

significant drill intercepts from three widely separated areas of the property include 0.54 oz/ton Au, 0.44 oz/ton Au and 0.41 oz/ton Au all over 1.5 m sample lengths. Descriptions of host rocks in the mineralized intervals are fine grained, bleached, siliceous volcanics with minor pyrite or garnet skarn with a few percent pyrite. Quartz vein material was not noted, however it may be difficult to distinguish in reverse circulation drill cuttings of small size.

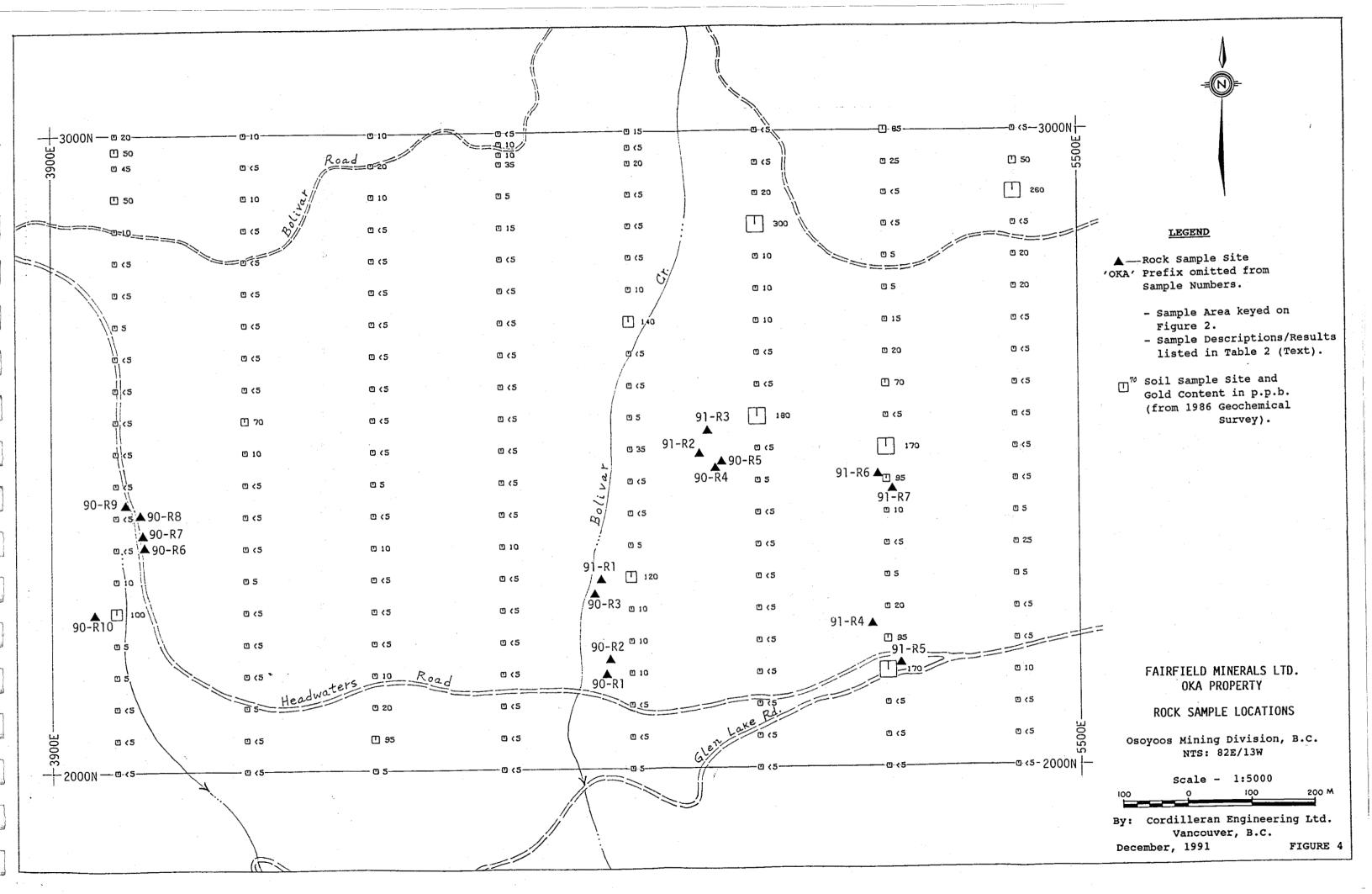
Chip sampling in trenches on the Iron Horse claim returned best values of 1.12 oz/ton Au over 1.5 m in garnet skarn at the footwall contact of a flat fault, 0.46 oz/ton Au across 0.8 m of arsenopyrite vein and clay gouge, and 0.24 oz/ton Au across 2.0 m of altered diorite with disseminated pyrite and arsenopyrite.

Grab samples from quartz veins ranging from a few cm to over one metre wide, cutting granitic rocks near the western Nicola contact, returned two significant values of 1.38 oz/ton Au and 0.67 oz/ton Au. Disseminated sulphides are often associated with the higher gold values.

#### 4.3 PROSPECTING AND ROCK SAMPLING (Figures 2 & 4, Table 2)

Three mandays in September, 1990 and four mandays in August, 1991 were spent prospecting areas of anomalous gold soil geochemistry, known quartz vein showings and a new logging access road. A two man crew of geologist and prospector employed by Cordilleran Engineering Ltd. conducted the work. Prospecting involved detailed examination of bedrock exposures and rock fragments in talus or overburden near anomalous soil sites and close inspection of rock cuts along road banks and ditches.

A total of 19 rock grab samples were collected, 10 in 1990 and 9 in 1991. All were selected chips from outcrop or float, predominantly comprised of quartz vein material. Sample locations are shown on Figures 2 and 4 with descriptions and assay results given in Table 2.



The rock samples had an average weight of about 2 kilograms with chips ranging from 1 to 7 cm in diameter. They were shipped to Acme Analytical Laboratories Ltd. in Vancouver where they were each crushed to minus 3/16 inch then 250 grams split out and pulverized to minus 100 mesh. The 1990 samples, Oka 90-R1 to R10, were all fire assayed for gold and silver using 1 assay ton (29 gm) cuts. The 1991 samples, Oka 91-R1 to R9, were analyzed for gold using 20 gm of pulp digested with aqua regia, extracted by MIBK and measured by Atomic Absorption. The silver was measured by I.C.P. using a 0.5 gm cut.

Most of the vein samples came from areas underlain by granodiorite or diorite near contacts with volcanic or sedimentary units. Host rocks are strongly fractured with widespread chlorite alteration and local epidote, sericite and carbonate alteration. Abundant, narrow aplite dykes were noted as well as several younger quartz-feldspar porphyry dykes, some up to 10 m wide. Quartz veins range from a few cm to 3 m wide, are white to glassy grey and locally contain drusy, limonitic boxwork or sparse disseminated pyrite with some arsenopyrite, hematite, minor chalcopyrite or molybdenite, often along vein selvages. They commonly strike east to northeast but may be discontinuous.

The reconnaissance rock samples returned low gold values except Oka 91-R5 which gave 1310 ppb Au (0.038 oz/ton) and 41.3 ppm Ag (1.20 oz/ton). It consisted of boxworked, limonitic quartz vein float in glacial till on a road-cut bank near the site of a 170 ppb soil anomaly. One other sample, Oka 91-R3, gave a significant silver value of 103.7 ppm Ag (3.02 oz/ton) however, gold was only 20 ppb. It was chipped from a 50 cm wide quartz vein with minor limonite, pyrite, arsenopyrite and galena which previously (1986) had yielded a gold value of 1.38 oz/ton.

Prospecting has revealed that a number of quartz veins are present in areas of anomalous gold geochemistry, with some of significant width. Sulphide minerals, with local associated gold, are sporadically distributed in the veins. Gold assays of small samples may be subject to considerable nugget effect. The gold appears to have strong coincidence with aresenopyrite, therefore, base metal analyses of rock samples may help define veins with higher gold potential. Additional prospecting and sampling to explore for high grade gold-bearing veins on the Oka property is definitely warranted.

Table 2: OKA PROPERTY: RECONNAISSANCE ROCK SAMPLES 1990-91

Samo			Assays/Analyses				
. براستان	<u>le #</u>	Grid Location	Type and Description	Au		Ag	
OF 2	90-R1	2140N-4765E	Grab/limonitic + pyritic qz vn rubble.	0.001	oz/t	0.11	02/+
JAA.	30-KI	2140N-470JE	Mitchell Showing Area.	0.001	02/0	0.11	02/0
	-R2	2165N-4770E	Selected chip/N. contact of 1-3m wide	0.001	**	0.28	**
	-KZ	210JN-4770E	qz vn w/chlor alt'd grdr. Vuggy qz	0.001		0.20	
			w/ lim + minor mal. vuggy q2				
	-R3	2275N-4740E	Grab/several limonitic qz vn fgmnts	0.001	11	0.70	.,
		22/511 4/401	in road fill.	0.001		0.70	
	-R4	2470N-4940E	Grab/pyritic qz float.	0.001	н	0.25	
······	-R5	2480N-4950E		0.001		0.06	
	-R6	2345N-4040E	Grab/in situ 10 cm qz vn cutting alt'd	0.001		0.20	11
	10	254511 40401	grdr. Vuqqy, limonitic qz w/trace MoS2.	0.001		0.20	
	-R7	2365N-4035E	Grab/10x20 cm talus fgmnt of vn qz	0.001	11	0.31	11
	-107	2505M-4055E	w/ 1% dissem + fine seams py + MoS <sub>2</sub> .	0.001		0.31	
	-R8	2395N-4035E	Selected chip/0.2m of rusty, pyritic	0.001	**	0.36	**
	-Ko	239JN-403JE	gz from hw section of 0.7-1.2 m wide	0.001		0.30	
			in situ vn.				
	-R9	2410N-4010E	Selected grabs/vn talus over ~6m.	0.001		0.45	
	-13	2410N-4010E	· · · · · · · · · · · · · · · · · · ·	0.001		0.45	••
			Limonitic boxworked qz w/sparse dissem				
	510	2240N-3965E	py, cpy, MoS <sub>2</sub> .	0 001			••
	-R10	224UN-3963E	Grab/10x25cm talus fgmnt of limonitic	0.001	••	0.11	**
		<u> </u>	qz + alt'd qrdr wallrock w/ Mo(?) oxide	<u> </u>			
OKA S	91-R1	2295N-4750E	Talus grabs/Chlor, schistose volcs w/	14	ppm	1.7	ppm
			qz vns, stringers containing spec hem,				
<del></del>			qn(?), py, lim.				
	-R2	2495N-4910E	Selected grab/rusty qz vn subcrop up	15	••	15.6	**
			to 15cm wide. Limonitic boxwork +				
		<u> </u>	minor dissem asp.				
	-R3	2530N-4925E	Selected chip/50cm wide in situ(?) qz	20	11	103.7	**
			vn w/lim selvages & minor dissem py,				
			asp +/or qn(?)				
	-R4	2215/25N-	Grab/hematitic qz float fgmnts	5	10	1.9	**
		5175/80E	up to 10cm across				
	-R5	2160N-	Selected grabs/very limonitic,	1310	**	41.3	**
		5215/20E	boxworked qz vn fgmnts in road fill.				
	·		Pieces to 6 cm wide.				
	-R6	2460N-5190E	Selected grab/diorite-hosted calc-qz	25	**	2.3	**
			fgmnt bx w/ spec.hem mtx containing				
			local blebs cpy.			_	
	-R7	2435N-5120E	Grab/single talus fgmnt; rusty-orange	8	**	0.2	**
			silic grdr w/glassy qz vlts, masses				
			carrying py + weath qn or tetr.(?).				
	-R8	Outside of	Outcrop grab/ new road cut near E.	9	11	0.5	**
		"Grid"	bdry of Iron Horse Cl. Gnt-chlor skn	•			
		Sample Area	w/hematitic calc vlts and several %				
		<u>.</u>	dissem py, epidote.				
	-R9		Outcrop grab/75m N'erly from R8.	33	.,	2.6	**
			Qz-py-asp 'mass' 25-30cm wide, in alt'd	33		2.0	
		(See Fig.2)	OX-DV-880 'MASS' Za-such wide in siria				

#### PERSONNEL

# Dates Worked:

J.D.Rowe, Geologist North Vancouver, BC Sep 25,27, 1990 Aug 8,9 1991

4 days prospecting

3 days report preparation

E.A.Balon, Prospector North Vancouver, BC Sep 25, 1990 Aug 8,9 1991 3 days prospecting

6.0 STATEMENT OF EXPENDITURES

#### OKA PROPERTY

PROFESSIONAL, TECHNICAL & GEO	LOGICAL SERVICES:	
J.D.Rowe, $4 \text{ days } \times 5$	00/day\$2,000	
E.A.Balon 3 days x 3	75/day <u>1,125</u>	\$ 3,125
FOOD & CAMP ACCOMMODATION:	7 mandays x \$85/day	595
ASSAYS AND ANALYSIS:	19 rocks (Au, Ag)	260
RENTALS:	Truck Radiophone, etc	260
DRAFTING, PRINTING, SUPPLIES		160
	TOTAL EXPENDITURES	\$4,400

#### REFERENCES

#### BOWEN, B.K.:

1988:

1987 Geological, Geochemical, Geophysical and Prospecting (Assessment) Report on the Oka Property.

# HYLANDS, J.J. & ROWE, J.D.:

1987

1986 Geological, Geochemical and Prospecting (Assessment) Report on the Oka Claim Group.

### JAKUBOWSKI, W.J.:

1989:

1988 Reverse Circulation Drilling, Geophysical, Geochemical and Prospecting (Assessment) Report on the Oka Property

### LITTLE, H.W.:

1961:

Geology, Kettle River (West Half), B.C. G.S.C. Map 15-1961.

8.0 STATEMENT OF QUALIFICATIONS

I, Jeffrey D. Rowe, of North Vancouver, British Columbia hereby certify that:

- 1. I am a geologist residing at 2596 Carnation Street, and employed by Cordilleran Engineering Ltd, of 1980 1055 West Hastings Street, Vancouver, British Columbia V6E 2E9.
- 2. I have received a B.Sc. degree in Honours Geology from the University of British Columbia, Vancouver, B.C. in 1975.
- 3. I have practiced my profession for eighteen years in British Columbia, Yukon and Quebec.
- 4. I am the author of this report and participated in the field work conducted on the Oka claims during the period September 25, 1990 to August 9, 1991.

CORDILLERAN ENGINEERING LTD.

Jeffrey D. Rowe, B.Sc., Geologist

Rowe

JDR/z December, 1991 Vancouver, B.C.

# ANALYTICAL RESULTS

ву:

ACME ANALYTICAL LABORATORIES LTD. 852 E. Hastings Street Vancouver, BC V6A 1R6

Report #91-3638

and

Report #90-5032 follow

ACME ANALYTICAL LABORATORIES LTD.

852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6 PHONE (604) 253-3158 FAX (604) 253-1716

# **GEOCHEMICAL ANALYSIS CERTIFICATE**

Cordilleran Engineering Ltd. PROJECT OKA #1 FILE # 91-3638 1980 - 1055 W. Hastings S, Vancouver BC V6E 2E9 Attn: E.A. BALON

	SAMPLE#	Ag ppm	Au* ppb	
	OKA91-R1	1.7	14	
-	OKA91-R2	15.6	15	
	OKA91-R3	103.7	20	
	OKA91-R4	1.9	5	
	OKA91-R5	41.3	1310	
	OKA91-R6	2.3	25	
•	OKA91-R7	.2	8	
	OKA91-R8	.5	9	
	OKA91 <b>-</b> R9	2.6	33	·

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 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 SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM. ASSAY RECOMMENDED FOR ROCK AND CORE SAMPLES IF CU PB ZN AS > 1%, AG > 30 PPM & AU > 1000 PPB
- SAMPLE TYPE: ROCK AU\* ANALYSIS BY ACID LEACH/AA FROM 20 GM SAMPLE.

DATE RECEIVED:

AUG 19 1991

DATE REPORT MAILED:

aug 23/91

SIGNED BY. A Stiffe .. D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716 DATE RECEIVED: OCT 3 1990

DATE REPORT MAILED:

Oct 11/90

# **ASSAY CERTIFICATE**

Cordilleran Engineering Ltd. PROJECT OKA #1 FILE # 90-5032 1980 - 1055 W. Hastings S, Vancouver BC V6E 2E9 Attn: E.A. BALON

SAMPLE#	Ag** oz/t	Au** oz/t
OKA90-R1 OKA90-R2 OKA90-R3 OKA90-R4 OKA90-R5	.11 .28 .70 .25	.001 .001 .001 .001
OKA90-R6 OKA90-R7 OKA90-R8 OKA90-R9 OKA90-R10	.20 .31 .36 .45	.001 .001 .001 .001
STANDARD AG-1/AU-1	.97	.097

AG\*\* AND AU\*\* BY FIRE ASSAY FROM 1 A.T. - SAMPLE TYPE: ROCK

- SAMPLE TIPE: ROCK

SIGNED BY .... D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS