

1987  
GEOCHEMICAL REPORT

FILMED

On the OKA PROPERTY (GROUP 1)  
Osoyoos Mining Division, B.C.  
NTS: 82E-13W; Lat. 49°48'N; Long. 119°53'W

DECEMBER, 1987. (BC'87 ASSESSMENT REP.)

**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

16,761

PART 1 OF 2

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Government :	2 bound
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Prepared:	8 reports

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**1 9 8 7   G E O C H E M I C A L   R E P O R T**  
**O N   T H E   O K A   P R O P E R T Y   ( G R O U P   1 )**  
(Oka #1-5, Iron Horse and Cap Claims)

Osoyoos Mining Division, B.C.  
Latitude 49 degrees 48'N; Longitude 119 degrees 53'W.  
NTS;   82/E-13W

For

**FAIRFIELD MINERALS LTD.**  
Vancouver, British Columbia

By

B. K. Bowen, P.Eng.

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

Date Submitted: December 23, 1987  
Work Period: June 1-3, 1987

*B. K. Bowen*

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(in pocket)

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## SUMMARY AND CONCLUSIONS

The Oka property consists of 13 mineral claims (185 units) in the Osoyoos and Similkameen Mining Divisions, located 12 km northwest of Peachland, B.C. Eleven of the claims were staked on behalf of Fairfield Minerals Ltd. by Cordilleran Engineering during March, 1986; the remaining two claims were purchased.

Access to the property is excellent via the Brenda Mine road and the Headwaters Road; the latter bisects the claims from east to west. Pine, balsam and fir forests cover the property.

The claims are underlain by Cretaceous granodiorite which intruded Upper Triassic Nicola Group volcanics, clastic sediments and limestone. Carbonate horizons were variably altered to marble and skarn, which locally contain pods of massive sphalerite, chalcopryite, pyrite and pyrrhotite with scattered gold values. Disseminated chalcopryite, sphalerite and molybdenite have been found in the intrusive on the west end of the property. Previous exploration efforts concentrated on the massive sulphide zones and potential porphyry deposits.

Exploration programs in 1986 and 1987 were conducted by Cordilleran for Fairfield.

The 1986 program, which focussed on gold, consisted of linecutting, soil sampling, prospecting and reconnaissance mapping. A number of large gold soil geochemical anomalies were defined; prospecting of some of these revealed that the higher gold values were associated with disseminated and massive sulphides in skarn. Known gold-bearing areas were highlighted by soil geochemical anomalies.

In 1987 a program of detailed grid soil sampling, magnetometer surveying and extensive trenching further tested areas of anomalous gold soil geochemistry.

This report covers only the results of three detailed soil grids which are located on the Oka 1, 2 and 5 claims. The purpose of the soil grids was to define and close off gold soil anomalies that had been partially outlined by the 1986 work.

It is concluded that most of the gold soil anomalies in the three subject areas have been delineated by the 1987 work. Possible sources of gold anomalies in two of the areas may be auriferous skarn or massive sulphide zones. Anomalous values in the third area cannot be explained by the present data.

2.0

## R E C O M M E N D A T I O N S

The following program is recommended to further define the known targets and determine more precisely the lithologic association and extent of the gold mineralization within two of the three subject areas.

1. In the Garnet and South Cap grid areas, collect additional soil samples on 25 m x 25 m grids around anomalous stations defined in 1987, and analyse for gold.
2. In the Garnet and South Cap grid areas, carry out detailed prospecting to locate mineralized bedrock sources of the gold soil geochemical anomalies.

No further work is recommended in the Peachland Creek grid area.

Respectfully submitted

*B. K. Bowen*

B. K. Bowen, P. Eng.

BKB/z  
December, 1987

*B. K. Bowen*

## 3.0

## I N T R O D U C T I O N

3.1 LOCATION AND ACCESS

The Oka property is situated in the Okanagan area of B.C. (Figure 1). The junction of the Headwaters Road (Figure 2) which provides access through the center of the claim block, and the paved Brenda Mine road is 11 km from Peachland.

The claims are on the east edge of the Trepanege Plateau, between elevations of 900 m and 1500 m. Forest cover of pine, balsam and fir is extensive. The property is traversed from west to east by Greata Creek and from northwest to southeast by Peachland Creek.

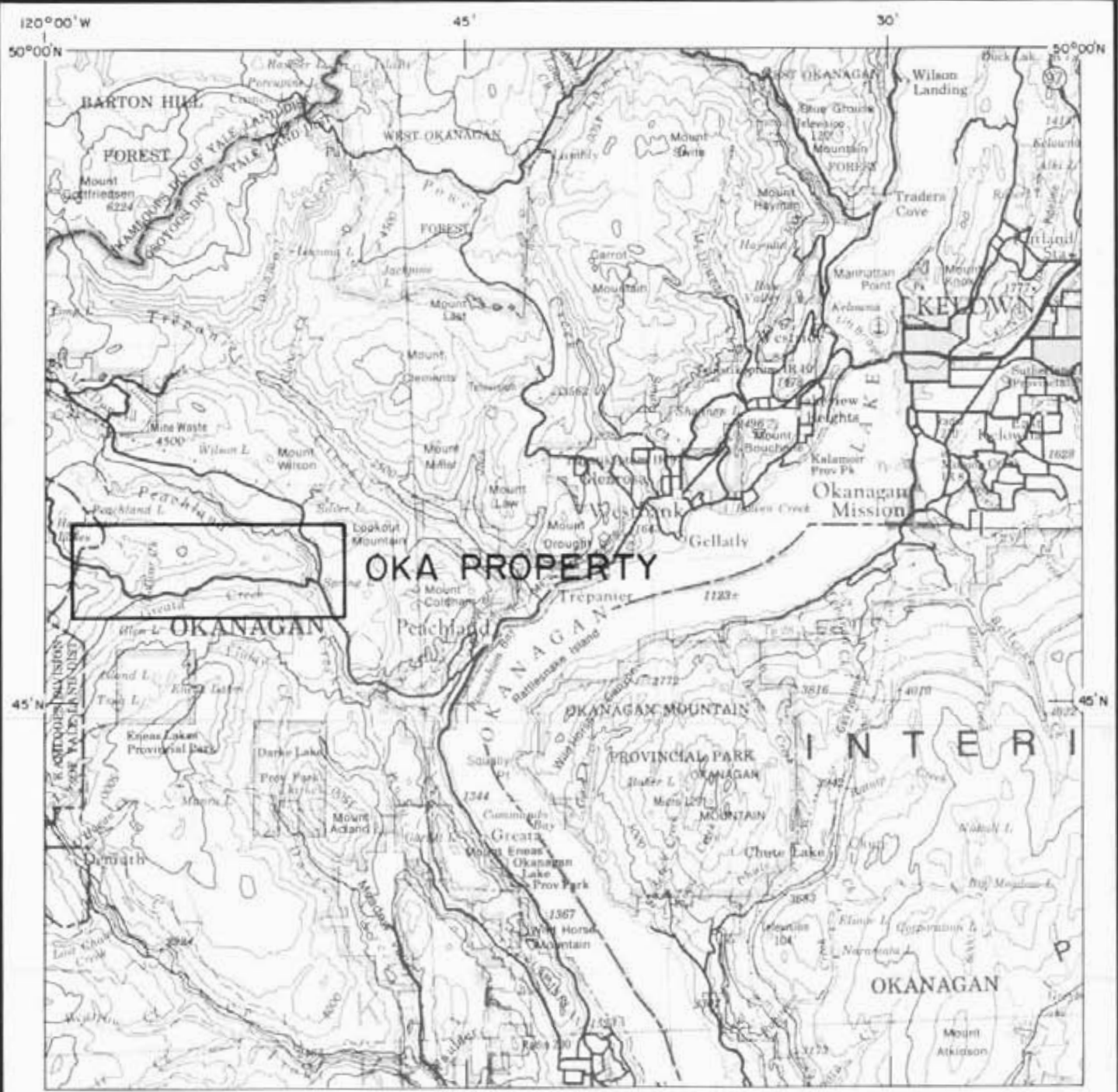
3.2 CLAIM DATA

The status of the Oka, Iron Horse and Cap claims is indicated in Table 1, and their locations are shown on Figure 2. The Oka 1-11 claims were staked in March, 1986, by Cordilleran Engineering for Fairfield Minerals Ltd. The Iron Horse and Cap claims were purchased by Fairfield Minerals from the claim holders.

Group 1 claims dealt with in this report include the Oka 1-5, Cap and Iron Horse claims.

Table 1: STATUS OF OKA CLAIMS AS AT DECEMBER 16, 1987

<u>CLAIM</u>	<u>UNITS</u>	<u>RECORD NO.</u>	<u>EXPIRY DATE</u>
OKA 1	20	2400	25 MAR. 1994
OKA 2	20	2401	25 MAR. 1994
OKA 3	20	2402	25 MAR. 1994
OKA 4	16	2403	25 MAR. 1994
OKA 5	16	2404	25 MAR. 1994
OKA 6	2	2405	25 MAR. 1994
OKA 7	20	2406	25 MAR. 1994
OKA 8	20	2407	25 MAR. 1994
OKA 9	12	2408	25 MAR. 1994
OKA 10	16	2409	25 MAR. 1994
OKA 11	16	2410	25 MAR. 1994
CAP	1	118	28 SEP. 1998
IRON HORSE	6	1771	2 JUN. 1994

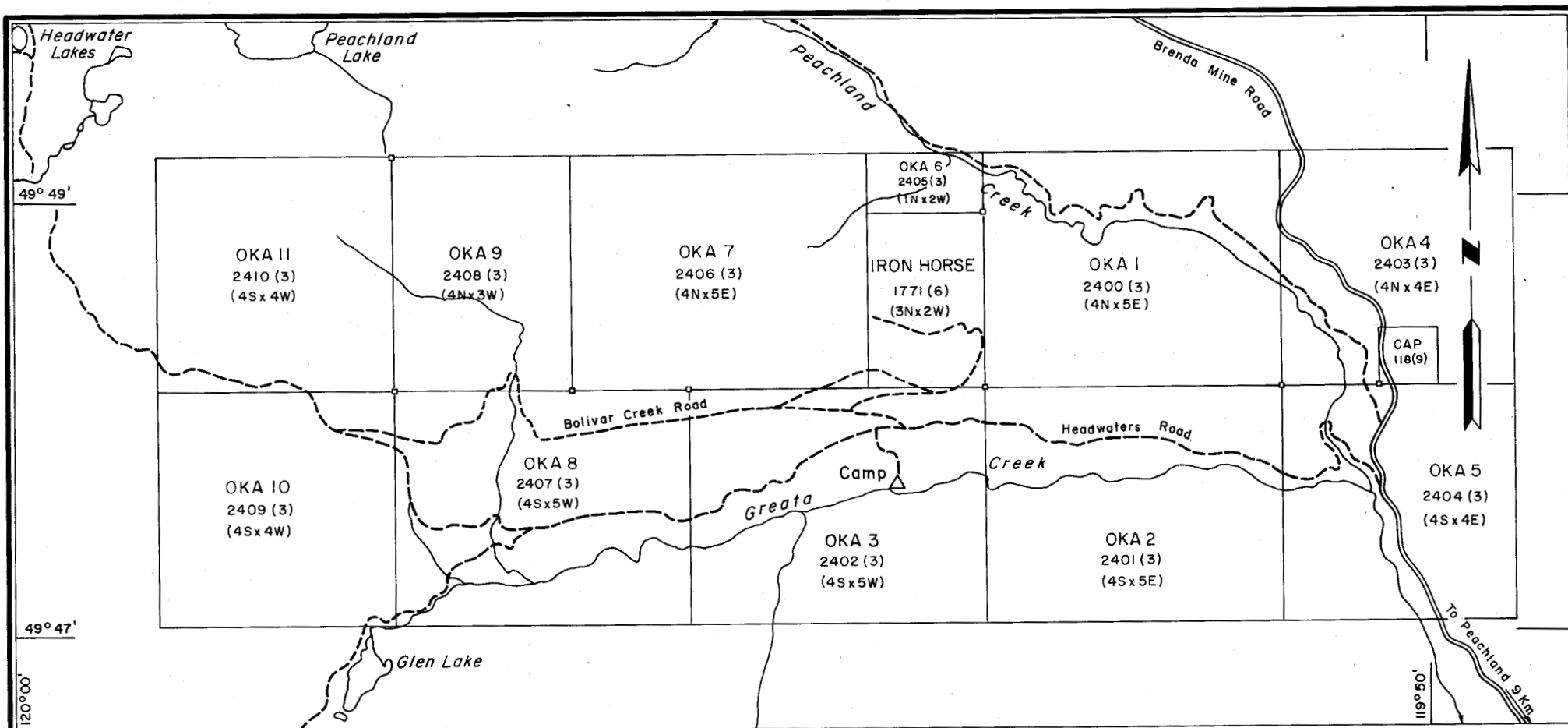


FAIRFIELD MINERALS LTD.  
**LOCATION MAP**  
**OKA GOLD PROPERTY**  
 SOUTH OKANAGAN AREA

N.T.S. 82E/13W OSOYOOS MINING DIVISION, B.C.  
 Scale = 1 : 250,000



Scale in Kilometres  
 CORDILLERAN ENGINEERING LTD.  
 1980-1055 W. HASTINGS STREET  
 VANCOUVER, B.C. V6E 2E9



**LEGEND**

- OKA 7 CLAIM NAME
- 2406 RECORD NUMBER
- (3) MONTH OF RECORD
- (4N x 4W) NUMBER OF UNITS N&W
- LCP LOCATION

FAIRFIELD MINERALS LTD.

**CLAIM MAP**

OKA PROPERTY  
SOUTH OKANAGAN AREA

N.T.S. 82E/13W

OSOYOOS MINING DIVISION, B.C.

Scale 1 : 50,000



Scale in Metres

DECEMBER 1987

FIGURE 2



### 3.3 HISTORY

The earliest reported work within the area of the Oka claims was in 1898/99 on the Silver King and Alma Mater properties at the west end of the present claim block. Three shallow shafts (to 4.3 m) and one deep one (76 m) were sunk and four adits (to 70 m) and one crosscut (58 m) were driven in intrusive rocks. The target was "free milling" gold. 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 started 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, north of the junction of the Brenda and Headwater roads. 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 of the present property were variously prospected, soil sampled and geophysically surveyed during the late 1960's and early 1970's.

Current 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 the higher gold values are associated with skarn and massive sulphide zones.

### 3.4 1987 EXPLORATION PROGRAM

The 1987 program consisted of detailed grid soil sampling, a magnetometer survey over the Iron Horse claim and about 3,000 linear metres of trenching which tested areas of anomalous gold soil geochemistry in several widely separated areas.

This report covers only the results of three detailed soil grids which are located on the Oka 1, 2 and 5 claims. The work was carried out and supervised by geologists T. Macdonald and B. Bowen respectively.

Purpose of the above work was to define and close off gold soil anomalies that had been partially outlined in the 1986 work.

## 4.0

## G E O L O G Y

4.1 REGIONAL GEOLOGY

The Oka property is situated in the northwest corner of GSC Map 15-1961, Kettle River, mapped by Dr. H. W. Little, 1958-59 (Figure 3). The property is underlain by pendants of sedimentary and volcanic rocks of the Upper Triassic Nicola Group which are cut by Cretaceous(?) age Nelson plutonic rocks. East of the property both intrusive and Nicola group rocks are covered by large areas of Eocene/Oligocene volcanic flows.

4.2 PROPERTY GEOLOGY AND MINERALIZATION

In order to facilitate the discussion of geochemical results in Section 5.2 a brief summary of the property geology and mineralization is given below. Outcrop distribution and geological units within the east half of the property are presented on Plate 1. For the reference source which provides a more complete description of property geology and mineralization, see Section 6.0.

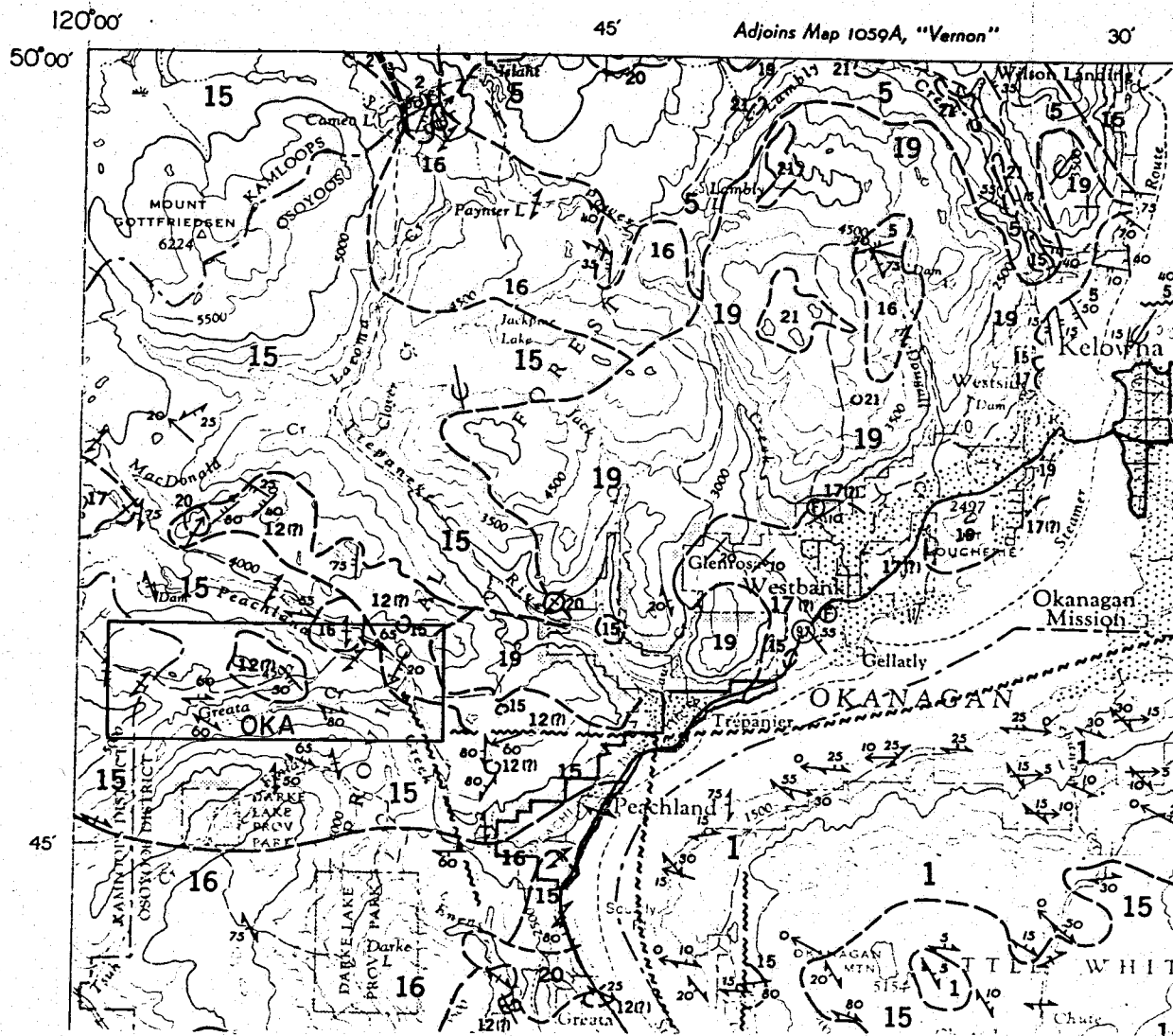
Upper Triassic Nicola Group rocks include limestone, clastic sediments and intermediate to basic volcanic rocks. Carbonate horizons were variably altered to marble and skarn at or near intrusive contacts. Pendants of Nicola rocks underly the central and eastern parts of the property.

The southwest, southeast and north-central portions of the property are underlain by batholiths of probable Cretaceous age. The plutonic rocks are predominantly diorite to granodiorite in composition.

The Nicola Group and plutonic rocks are locally cut by later (Tertiary?) quartz feldspar porphyry and basalt dikes.

Gold mineralization occurs in several widely separated areas on the property. Significant gold values have been obtained from massive sulphide lenses (consisting mainly of pyrite and pyrrhotite with lesser amounts of arsenopyrite, chalcopyrite and sphalerite) located within or between skarn and marble units, from sulphide-poor garnetite skarn and from quartz-arsenopyrite veins. Fine visible gold has been identified within marble containing minor disseminated arsenopyrite.

In the southwest corner of the property a zone of intense sericite alteration is located within a granodiorite unit. The zone contains abundant fine quartz veins, coarse disseminated pyrite and local molybdenite and hematite. Chip samples across this zone returned interesting silver values, but no gold.



**LEGEND**

- 20 O? Coryell syenite, granite
- 19 E/O Andesite, trachyte flows
- 17 P/E Conglomerate, sandstone, shale
- 16 K? Valhalla granite, granodiorite
- 15 K? Nelson diorite to granodiorite
- 12 U? Nicola Group argillite, sandstone, limestone, greenstone

FAIRFIELD MINERALS LTD.  
**REGIONAL GEOLOGY**  
 OKA PROPERTY  
 OSOYOOS MINING DIVISION, B.C.

Scale 1 : 50,000



Scale in Metres

NOTE:  
 From GSC Map 15-1961

## 5.0

## G E O C H E M I S T R Y

5.1 INTRODUCTION

A total of 162 soil samples were collected on the three 1987 grid extensions which are the subject of this report. The totals per grid area are as follows:

<u>Grid Area</u>	<u>Claim(s)</u>	<u>Number of Samples</u>
Garnet	Oka 1 & 2	42
Peachland Creek	Oka 1	45
South Cap	Oka 5	75

End points from the existing 1986 detailed (25m x 25m) grids provided control for 1987 grid extensions. Sample lines, oriented east-west, were established using compass and hip chain at 25 metre intervals, and samples were collected at 25 metre spacings on these lines.

All samples were collected from the "B" soil horizon and placed in kraft paper bags. Sample numbers consisting of grid coordinates were marked on each bag and on flagging at each sample site. The samples were sent to Acme Analytical Laboratories Ltd., Vancouver, where they were dried, screened and the -80 mesh fraction used for Au analyses. Each 10 gram sample was ignited at 600 degrees Celsius, digested with hot aqua regia, extracted by MIBK and analysed by graphite furnace atomic absorption.

5.2 RESULTS

The Au results for the above 1986 detailed grids and their 1987 grid extensions are plotted on Figures 4 to 6. Grid locations relative to outcrop distribution and geological units are shown on Plate 1.

Statistical analysis of the 1986 main (200m by 50m) grid results gave the following Au categories (in ppb):

Background	<5
Weakly Anomalous	5-19
Anomalous	20-65
Strongly Anomalous	>65

Discussion of results from the three 1987 detailed grid extensions are based on these statistics.

GEOCHEMISTRY - RESULTS Continued5.2.1 Garnet Grid

Two of the three small (25 to 50 m wide, 50 to 100 m long) anomalous areas partially delineated in 1986 were closed off by the 1987 work. The western-most anomaly, in the vicinity of 3250N/9200E, is still open to the south.

No outcrop has been mapped within the detailed grid area. Adjacent areas to the northwest and southeast are underlain by marble and skarn intruded by granodiorite to the east. The source of the Au soil anomalies may be skarn or massive sulphide hosted gold mineralization similar to occurrences at the nearby Iron Horse claim.

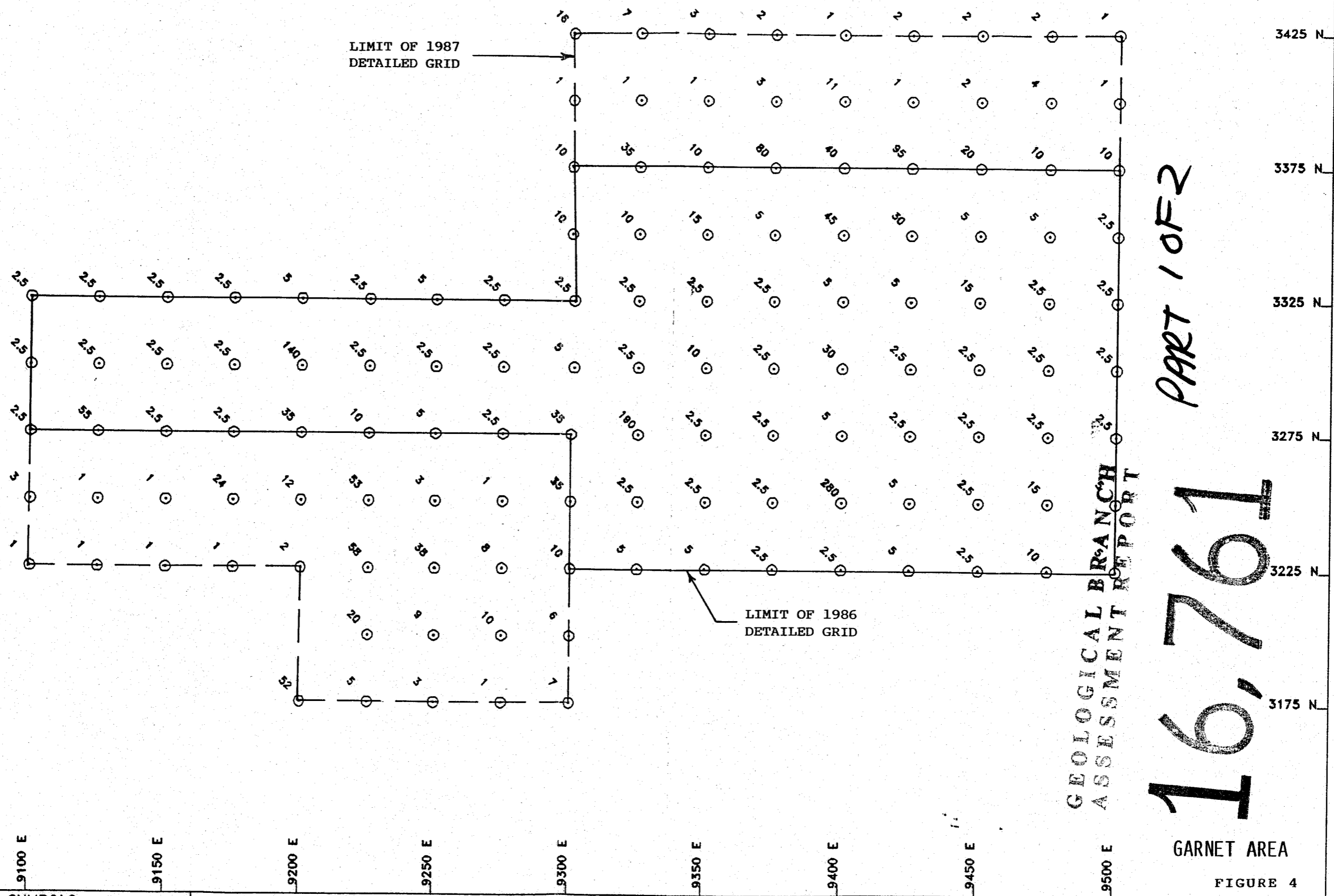
5.2.2 Peachland Creek Grid

This detailed grid area contains scattered single value anomalies up to 110 ppb Au. No anomalous patterns are present. The area is underlain by granodiorite. The anomalous values cannot be explained from the present data.

5.2.3. South Cap Grid

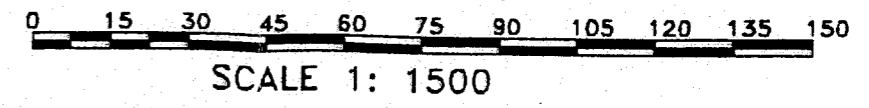
The three small (up to 30 m wide by 90 m long) anomalous areas partially delineated in 1986 were closed off by the 1987 work. A single value anomaly at 2725N/12950E remains open to the east.

The grid area is underlain by marble. Although no mineralization has been observed in outcrops mapped to date, localized auriferous massive sulphide zones may be present beneath overburden cover. Massive sulphide zones containing minor gold occur within marble at the nearby Cap showing.



SYMBOLS  
 AU ppb  
 ○

FAIRFIELD MINERALS LTD. OKA PROPERTY  
 9400E 3250N GRID SOIL GEOCHEM

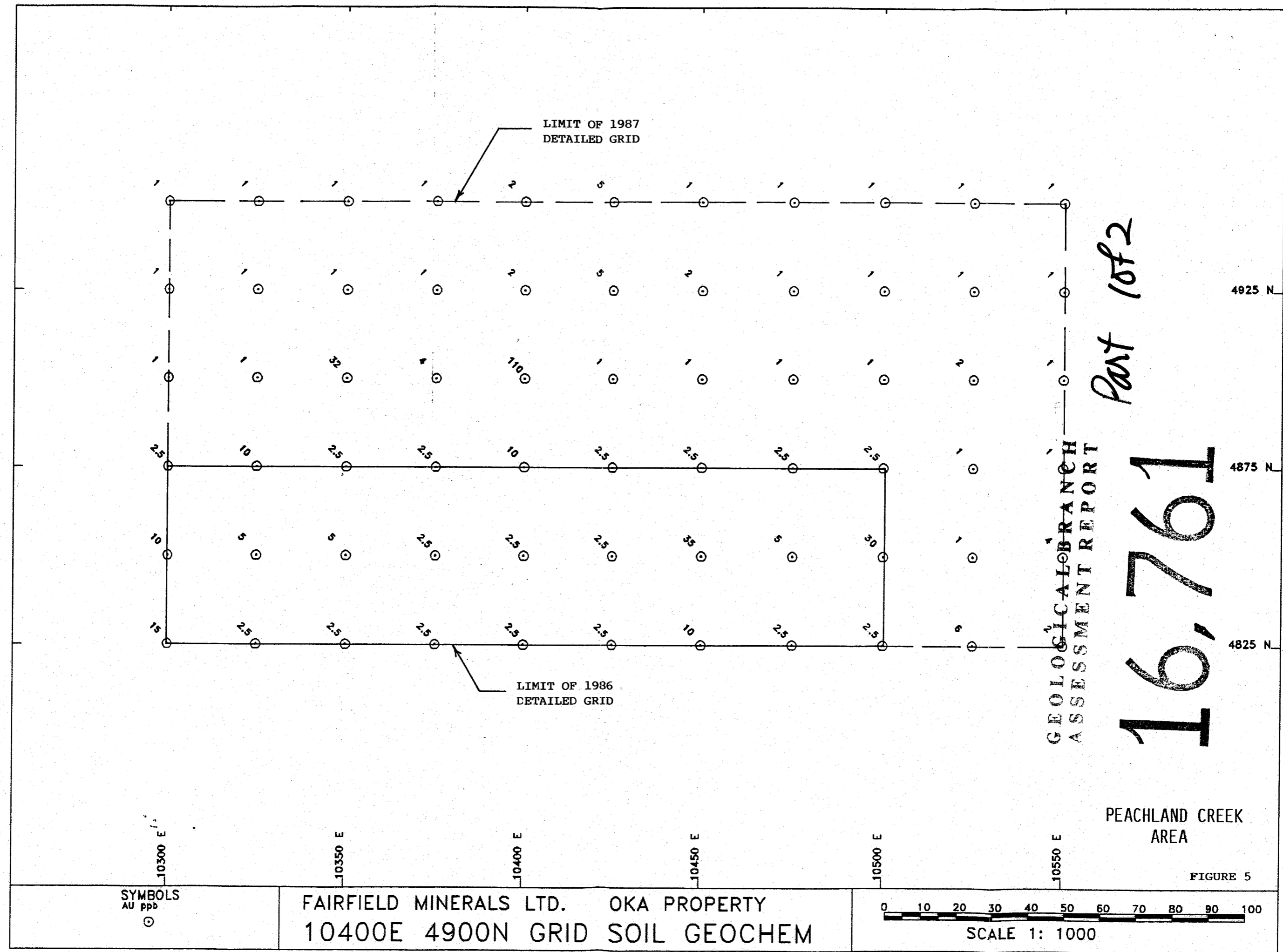


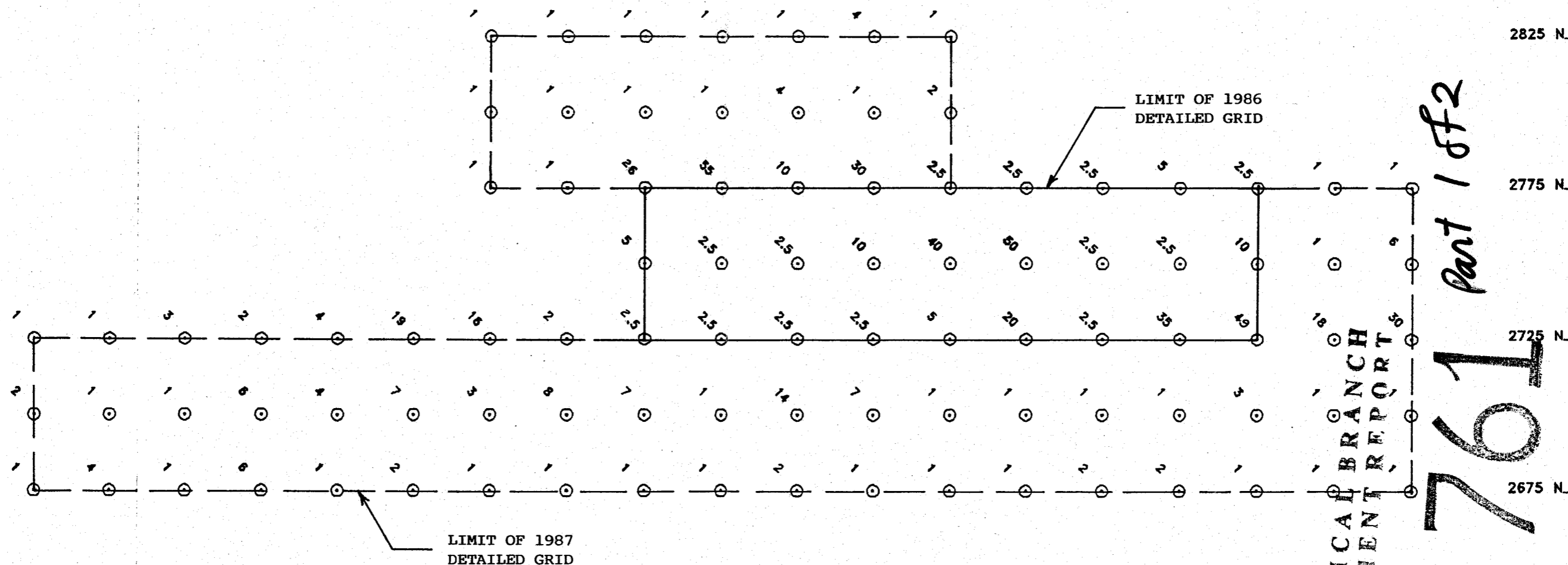
GEOLOGICAL BRANCH  
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PART 1 OF 2

16,761

GARNET AREA  
 FIGURE 4





GEOLOGICAL  
 BRANCH  
 ASSESSMENT REPORT

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part 1 of 2

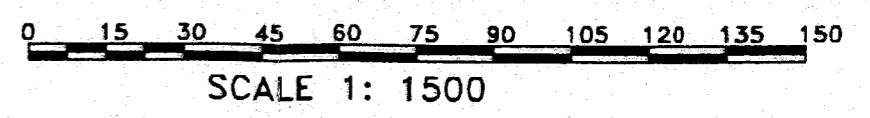
SOUTH CAP AREA

FIGURE 6

12500 E      12550 E      12600 E      12650 E      12700 E      12750 E      12800 E      12850 E      12900 E      12950 E

SYMBOLS  
 AU ppb  
 ○

FAIRFIELD MINERALS LTD. OKA PROPERTY  
 12800E 2750N GRID SOIL GEOCHEM





## 6.0

## R E F E R E N C E S

- H. W. Little            Geology, Kettle River (West Half), B.C.  
                          G.S.C. Map 15-1961
- J. J. Hylands            Assessment Report:  
J. D. Rowe                1986 Geological, Geochemical and Prospecting Report  
                          on the Oka Claim Group,  
                          Osoyoos and Similkameen Mining Divisions, B.C.,  
                          Cordilleran Engineering Ltd., April, 1987.



**B.K. (BARNEY) BOWEN, P. ENG.**

GEOLOGIST


12470 99 A Avenue Surrey, B.C. Canada V3V 2R5 • (604) 585-1739

8.0

STATEMENT OF QUALIFICATIONS

I, Brian K. Bowen, hereby certify that:

1. I am a consulting geologist resident at 12470 99A Avenue, Surrey, B.C. V3V 2R5, providing services to Cordilleran Engineering Ltd.
2. I am a graduate of the University of British Columbia (B.A.Sc., Geological Engineering, 1970).
3. I have been employed as both a mine and exploration geologist since 1970 in British Columbia and elsewhere.
4. The work described in this report was done under my direct supervision.
5. I am the author of this report and have assessed the results of the field work conducted on the Oka property during the period June 1 to 3, 1987.
6. I am a member in good standing of the Association of Professional Engineers of the Province of British Columbia.
7. I have no beneficial interest in the claims covered by this report or in Fairfield Minerals Ltd.



B. K. Bowen, P.Eng.

9.0

ANALYTICAL RESULTS

The Geochemical Lab Reports and Certificates of Analysis of Acme Analytical Laboratories Ltd. listed below follow:

87 - 1622

87 - 1744

87 - 4408

RECEIVED

JUN 12 87

ACME ANALYTICAL LABORATORIES LTD.  
852 E. HASTINGS, VANCOUVER B.C.  
PH: (604)253-3158 COMPUTER LINE:251-1011

DATE RECEIVED...JUNE 6 1987

DATE REPORTS MAILED *June 12/87*

### GEOCHEMICAL ASSAY CERTIFICATE

SAMPLE TYPE : SOIL -80 MESH  
Au# - 10 GM, IGNITED, HOT AQUA REGIA LEACHED, MIBK EXTRACTION, AA ANALYSIS.

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

CORDILLERAN ENGINEERING PROJECT OKA #<sup>74</sup>~~73~~ FILE# 87-1622 PAGE# 1

SAMPLE	Au* ppb
L4950N 10300E	1
L4950N 10325E	1
L4950N 10350E	1
L4950N 10375E	1
L4950N 10400E	2
L4950N 10425E	5
L4950N 10450E	1
L4950N 10475E	1
L4950N 10500E	1
L4950N 10525E	1
L4950N 10550E	1
L4925N 10300E	1
L4925N 10325E	1
L4925N 10350E	1
L4925N 10375E	1
L4925N 10400E	2
L4925N 10425E	5
L4925N 10450E	2
L4925N 10475E	1
L4925N 10500E	1
L4925N 10525E	1
L4925N 10550E	1
L4900N 10300E	1
L4900N 10325E	1
L4900N 10350E	32
L4900N 10375E	4
L4900N 10400E	2
L4900N 10425E	1
L4900N 10450E	1
L4900N 10475E	1
L4900N 10500E	1
L4900N 10525E	2
L4900N 10550E	1
L4875N 10500E	1
L4875N 10525E	1
L4875N 10550E	1

PEACHLAND CREEK GRID

SAMPLE	Au*	
	ppb	
L4850N 10500E	5	} PEACHLAND CREEK GRID
L4850N 10525E	1	
L4850N 10550E	4	
L4825N 10500E	1	
L4825N 10525E	6	
L4825N 10550E	2	
L3625N 7100E	25	
L3625N 7125E	3	
L3625N 7150E	13	
L3625N 7175E	13	
L3625N 7200E	25	
L3625N 7225E	17	
L3625N 7250E	26	
L3625N 7275E	8	
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L3500N 7275E	17	
L3500N 7300E	240	
L3475N 6600E	13	
L3475N 6625E	10	
L3475N 6650E	8	

CORDILLERAN ENGINEERING PROJECT OKA #3 FILE# 87-1622

PAGE# 4

SAMPLE	Au*	
	ppb	
L3450N 7150E	6	
L3450N 7175E	69	
L3450N 7200E	27	
L3450N 7225E	5	
L3450N 7250E	21	
L3450N 7275E	8	
L3450N 7300E	11	
L3425N 5525E	1	
L3425N 5550E	1	
L3425N 6100E	1	
L3425N 6125E	10	
L3425N 6150E	3	
L3425N 6600E	2	
L3425N 6625E	10	
L3425N 6650E	17	
L3425N 6675E	3	
L3425N 6700E	5	
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L3425N 7175E	52	
L3425N 7200E	17	
L3425N 7225E	33	
L3425N 7250E	395	
L3425N 7275E	7	
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L3425N 9300E	16	} GARNET GRID
L3425N 9325E	7	
L3425N 9350E	3	
L3425N 9375E	2	
L3400N 5525E	1	
L3400N 5550E	2	
L3400N 6100E	4	
L3400N 6125E	15	
L3400N 6150E	1	
L3400N 6600E	3	

CORDILLERAN ENGINEERING PROJECT OKA #3 FILE# 87-1622 PAGE# 5

SAMPLE	Au*	ppb
L3400N 6625E	540	
L3400N 6650E	4	
L3400N 6675E	1	
L3400N 6700E	1	
L3400N 7100E	42	
L3400N 7125E	54	
L3400N 7150E	82	
L3400N 7175E	33	
L3400N 7200E	19	
L3400N 7225E	44	
L3400N 7250E	7	
L3400N 7275E	4	
L3400N 7300E	8	
L3400N 9300E	1	} GARNET GRID
L3400N 9325E	1	
L3400N 9350E	1	
L3400N 9375E	3	
L3375N 5525E	1	
L3375N 5550E	4	
L3375N 6100E	14	
L3375N 6125E	3	
L3375N 6150E	7	
L3375N 6450E	8	
L3375N 6475E	1	
L3375N 6500E	1	
L3375N 6525E	3	
L3375N 6550E	1	
L3375N 6575E	2	
L3375N 6600E A	9	
L3375N 6600E B	3	
L3375N 6625E	1	
L3375N 6650E	6	
L3375N 6675E	4	
L3375N 6700E	1	
L3375N 7100E	2	
L3375N 7125E	56	



SAMPLE	Au* ppb	
L3275N 7025E	1	
L3275N 7050E	3	
L3275N 7075E	11	
L3275N 7100E	2	
L3250N 6500E	1	
L3250N 6525E	2	
L3250N 6550E	8	
L3250N 9100E	3	} GARNET GRID
L3250N 9125E	1	
L3250N 9150E	1	
L3250N 9175E	24	
L3250N 9200E	12	
L3250N 9225E	53	
L3250N 9250E	3	
L3250N 9275E	1	
L3250N 9300E	1	
L3225N 6500E	10	
L3225N 6525E	45	
L3225N 6550E	1	
L3225N 6575E	4	
L3225N 6600E	4	
L3225N 6625E	1	
L3225N 6650E	2	
L3225N 6675E	1	
L3225N 6700E	22	
L3225N 9100E	1	} GARNET GRID
L3225N 9125E	1	
L3225N 9150E	1	
L3225N 9175E	1	
L3225N 9200E	2	
L3225N 9225E	58	
L3225N 9250E	38	
L3225N 9275E	8	
L3225N 9300E	1	
L3200N 6275E	1	
L3200N 6300E	35	

SAMPLE	Aux* ppb
L2850N 3900E	7
L2850N 3925E	3
L2850N 3950E	5
L2850N 3975E	1
L2850N 4025E	1
L2850N 4050E	5
L2850N 4075E	1
L2850N 4100E	3
L2825N 3900E	3
L2825N 3925E	1
L2825N 3950E	1
L2825N 3975E	60
L2825N 4000E	1
L2825N 12650E	1
L2825N 12675E	1
L2825N 12700E	1
L2825N 12725E	1
L2825N 12750E	1
L2825N 12775E	4
L2825N 12800E	1
L2800N 12650E	1
L2800N 12675E	1
L2800N 12700E	1
L2800N 12725E	1
L2800N 12750E	4
L2800N 12775E	1
L2800N 12800E	2
L2775N 12650E	1
L2775N 12675E	1
L2775N 12700E	26
L2775N 12900E	2
L2775N 12925E	1
L2775N 12950E	1
L2750N 12900E	1
L2750N 12925E	1
L2750N 12950E	6

SOUTH CAP GRID

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PAGE# 14

SAMPLE	Aux ppb
L2725N 12500E	1
L2725N 12525E	1
L2725N 12550E	3
L2725N 12575E	2
L2725N 12600E	4
L2725N 12625E	19
L2725N 12650E	16
L2725N 12675E	2
L2725N 12700E	5
L2725N 12900E	49
L2725N 12925E	18
L2725N 12950E	30
L2700N 12500E	2
L2700N 12525E	1
L2700N 12550E	1
L2700N 12575E	6
L2700N 12600E	4
L2700N 12625E	7
L2700N 12650E	3
L2700N 12675E	8
L2700N 12700E A	7
L2700N 12700E B	1
L2700N 12725E	1
L2700N 12750E	14
L2700N 12775E	7
L2700N 12800E	1
L2700N 12825E	1
L2700N 12850E	1
L2700N 12875E	1
L2700N 12900E	3
L2700N 12925E	1
L2700N 12950E	1
L2675N 12500E	1
L2675N 12525E	4
L2675N 12550E	1
L2675N 12575E	6

} SOUTH CAP GRID

CORDILLERAN ENGINEERING PROJECT OKA #3 FILE# 87-1622

PAGE# 15

SAMPLE	Au*	
	ppb	
L2675N 12600E	1	} SOUTH CAP GRID
L2675N 12625E	2	
L2675N 12650E	1	
L2675N 12675E	1	
L2675N 12700E A	1	
L2675N 12700E B	1	
L2675N 12725E	1	
L2675N 12750E	2	
L2675N 12775E	1	
L2675N 12800E	1	
L2675N 12825E	1	
L2675N 12850E	2	
L2675N 12875E	2	
L2675N 12900E	1	
L2675N 12925E	1	
L2675N 12950E	1	
5525E 2975N	8	
5525E 2950N	2	
5525E 2925N	5	
5525E 2900N	8	
5525E 2875N	22	
5525E 2850N	2	

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PH: (604) 253-3158 COMPUTER LINE: 251-1011

DATE RECEIVED JUN 13 1987

DATE REPORTS MAILED June 18/87

### GEOCHEMICAL ASSAY CERTIFICATE

SAMPLE TYPE : SOIL -80 MESH  
Au# - 10 GM. IGNITED, HOT AQUA REGIA LEACHED, MIBK EXTRACTION, AA ANALYSIS.

ASSAYER: D. Toye DEAN TOYE, CERTIFIED B.C. ASSAYER

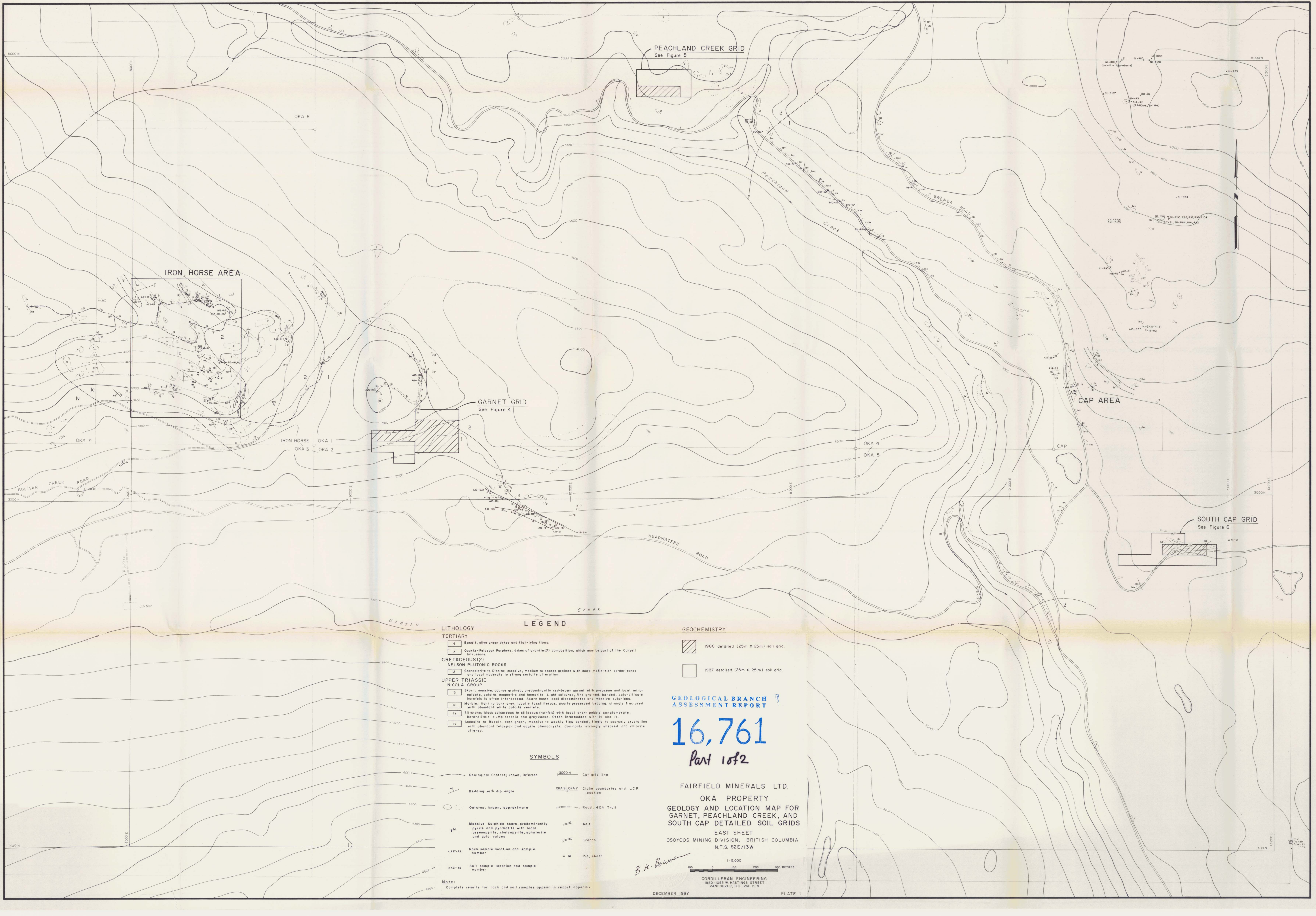
CORDILLERAN ENGINEERING PROJECT OKA #5 FILE# 87-1744 PAGE# 1

SAMPLE	Au# ppb	
L3425N 9400E	1	} GARNET GRID
L3425N 9425E	2	
L3425N 9450E	2	
L3425N 9475E	2	
L3425N 9500E	1	
L3400N 9400E	11	
L3400N 9425E	1	
L3400N 9450E	2	
L3400N 9475E	4	
L3400N 9500E	1	
L2950N 2700E	1	
L2950N 2725E	2	
L2950N 2750E	1	
L2950N 2775E	8	
L2950N 2800E	1	
L2950N 2825E	1	
L2950N 2850E	2	
L2950N 2875E	1	
L2950N 2900E	1	
L2925N 2700E	3	
L2925N 2725E	2	
L2925N 2750E	1	
L2925N 2775E	1	
L2925N 2800E	1	
L2925N 2825E	1	
L2925N 2850E	1	
L2925N 2875E	2	
L2925N 2900E	6	
L2900N 2700E	1	
L2900N 2725E	2	
L2900N 2750E	1	
L2900N 2775E	16	
L2900N 2800E	3	
L2900N 2825E	1	
L2900N 2850E	1	
L2900N 2875E	1	
L2900N 2900E	1	

CORDILLERAN ENGINEERING PROJECT OKA FILE# 87-4408

PAGE# 3

SAMPLE	Au*	ppb
3200N 6475E	3	
3200N 6800E	4	
3200N 6825E	8	
3200N 6850E	6	
3200N 6875E	3	
3200N 6900E	116	
3200N 6925E	4	
3200N 6950E	1	
3200N 6975E	143	
3200N 9225E	20	} GARNET GRID
3200N 9250E	9	
3200N 9275E	10	
3200N 9300E	6	
3175N 5500E	14	
3175N 5525E	9	
3175N 5550E	18	
3175N 5575E	450	
3175N 5600E	230	
3175N 5625E	5	
3175N 5650E	635	
3175N 5675E	94	
3175N 5700E	12	
3175N 5725E	50	
3175N 5750E	5	
3175N 6425E	15	
3175N 6450E	133	
3175N 6475E	255	
3175N 9200E	52	} GARNET GRID
3175N 9225E	5	
3175N 9250E	3	
3175N 9275E	1	
3175N 9300E	7	
3150N 3700E	13	
3150N 3725E	340	
3150N 3750E	5	
3150N 3775E	75	



PEACHLAND CREEK GRID  
See Figure 5

IRON HORSE AREA

GARNET GRID  
See Figure 4

CAP AREA

SOUTH CAP GRID  
See Figure 6

- LITHOLOGY**
- TERTIARY**
- 4 Basalt, olive green dykes and flat-lying flows.
  - 3 Quartz-Feldspar Porphyry, dykes of granite(?) composition, which may be part of the Coryell intrusions.
- CRETACEOUS (?)**
- NELSON PLUTONIC ROCKS**
- 2 Granodiorite to Diorite, massive, medium to coarse grained with more mafic-rich border zones and local moderate to strong sericite alteration.
- UPPER TRIASSIC**
- NICOLA GROUP**
- Ig Skarn, massive, coarse grained, predominantly red-brown garnet with pyroxene and local minor epidote, calcite, magnetite and hematite. Light coloured, fine grained, banded, calc-silicate hornfels is often interbedded. Skarn hosts local disseminated and massive sulphides.
  - IC Marble, light to dark grey, locally fossiliferous, poorly preserved bedding, strongly fractured with abundant white calcite veins.
  - Is Siltstone, block calcareous to siliceous (hornfels) with local chert pebble conglomerate, heterolithic slump breccia and greywacke. Often interbedded with Is and IC.
  - Iv Andesite to Basalt, dark green, massive to weakly flow banded, finely to coarsely crystalline with abundant feldspar and augite phenocrysts. Commonly strongly sheared and chlorite altered.

- GEOCHEMISTRY**
- 1986 detailed (25m X 25m) soil grid.
  - 1987 detailed (25m X 25m) soil grid.

**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

**16,761**  
Part 1 of 2

FAIRFIELD MINERALS LTD.  
OKA PROPERTY  
GEOLOGY AND LOCATION MAP FOR  
GARNET, PEACHLAND CREEK, AND  
SOUTH CAP DETAILED SOIL GRIDS  
EAST SHEET  
OSOYOOS MINING DIVISION, BRITISH COLUMBIA  
N.T.S. 82E/13W

**SYMBOLS**

- Geological Contact, known, inferred
- Bedding with dip angle
- Outcrop, known, approximate
- Massive Sulphide skarn, predominantly pyrite and pyrrhotite with local chalcopyrite, chalcopyrite, sphalerite and gold values
- Rock sample location and sample number
- Soil sample location and sample number
- Cut grid line
- Claim boundaries and LCP location
- Road, 4x4 Trail
- Adit
- Trench
- Pit, shaft

**Note:**  
Complete results for rock and soil samples appear in report appendix.

*B.K. Power*

1:5,000  
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