ARIS SUMMARY SHEET

District Geologist, Kamloops Off Confidential: 90.11.27

ASSESSMENT REPORT 19835 MINING DIVISION: Similkameen

PROPERTY: Elk North
LOCATION: LAT 49 50 00 LONG 120 19 00
UTM 10 5523335 692965
NTS 092H16W

CAMP: 012 Nicola Belt

CLAIM(S): Elk 1-2,Elk 20-21,Elk 46-53
OPERATOR(S): Fairfield Min.
AUTHOR(S): Jakubowski, W.;Conroy, P.;Cormier, J.
REPORT YEAR: 1990, 364 Pages
COMMODITIES SEARCHED FOR: Gold,Silver
KEYWORDS: Triassic,Jurassic,Nicola Group,Similkameen Group,Andesites,Basalts Agglomerates,Tuffs,Granites,Pyrite,Pyrrhotite,Galena,Chalcopyrite Bornite,Marcasite,Gold

WORK DONE: Geological,Geophysical,Drilling,Physical,Geochemical

DIAD	752.0 m	12 hole(s);HQ ,NQ
	Map(s) - 3; Scale(s) - 1:250	
EMGR	50.0 km	;VLF
	Map(s) - 5; Scale(s) - 1:5000	
GEOL	5.0 ha	
	Map(s) - 3; Scale(s) - 1:200	
LINE	20.7 km	
LSUR	20.0 km	
MAGG	50.0 km	
	Map(s) - 4; Scale(s) - 1:5000	
META	4 sample(s)	
PETR	16 sample(s)	
ROAD	9.5 km	
SAMP	1350 sample(s)	;AU,AG
SOIL	1120 sample(s)	;AU,AG
	Map(s) - 1; Scale(s) - 1:10 000	
TREN	2223.0 m	25 trench(es)
	Map(s) - 5; Scale(s) - 1:1000,1:500	

RELATED REPORTS: 16644,18511,19489
MINFILE: 092HNE137

1989

GEOCHEMICAL, TRENCHING & DRILLING REPORT
On the ELK PROPERTY - NORTH AREA

Similkameen Mining Division, B.C.
Siwash Lake Area, British Columbia
NTS: 92H-16W; Lat. 49°50'N; Long. 120°19'W

MARCH, 1990 (BC Assessment Report)
VOLUME I: TEXT & PLATES

This report consists of two volumes:

Volume I: Text and Plates
Volume II: Appendices

REPORT DISTRIBUTION

Government	2
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Field	1
TSE	2
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Extra copy	1
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Part 1 of 2

1989

GEOCHEMICAL, TRENCHING AND DRILLING REPORT ON THE ELK PROPERTY - NORTH AREA

Similkameen Mining Division, B.C.
Siwash Lake Area, British Columbia
Latitude 49°50'N; Longitude 120°19'W.
NTS: 92H-16W

For

FAIRFIELD MINERALS LTD.
Vancouver, British Columbia

and

PLACER DOME INC.
Vancouver, British Columbia

By

W. Jakubowski, B.Sc.

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

Date Submitted: March, 1990
Field Period: June 1 to November 5, 1989

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1.0 SUMMARY AND CONCLUSIONS

The Elk property consists of 79 contiguous mineral claims comprising 518 units located 40 kilometres west of Peachland, B.C., in the Similkameen Mining Division (NTS: 92H-16W). Initial staking was undertaken in November 1986 (160 units) with additions in 1987 (60 units), 1988 (32 units) and 1989 (194 units). A block comprising 72 units was optioned from Mr. Donald Agur of Summerland, B.C. in October, 1988. Claim acquisition and subsequent work have been conducted by Cordilleran Engineering Ltd. for Fairfield Minerals Ltd. Placer Dome Inc. entered into an option agreement on the property in March, 1988. This report describes work done on the Elk North area which includes Elk 1-18, 20-27, 29-30, 43-54, 62-65 and 71-73 claims during the period June 1 to November 5, 1989.

The Elk claims cover forested gently rolling hills with fair to poor bedrock exposure. The property is accessible by gravel road, 50 kilometres from Peachland, B.C., or 35 kilometres from the Princeton-Merritt highway. A new highway, currently under construction from Merritt to Westbank, passes through the northern claims.

Work conducted on the Elk North area in 1986, 1987 and 1988 consisted of geological mapping, prospecting, linecutting, soil sampling, excavator trenching and road construction. During the 1989 field season, linecutting, soil sampling, geophysical surveys, trenching, trench reclamation, road construction and diamond drilling were undertaken.

The property is underlain by a Triassic Nicola Group volcano-sedimentary assemblage on the west and by granitic rocks of the Jurassic Similkameen Intrusions on the east. Feldspar porphyry stocks of the Upper Cretaceous Otter Intrusions cut both the Nicola and Similkameen rocks. Andesite dykes intrude all of the above units and are interpreted to be of Tertiary Age.

Gold-silver mineralization on the Elk property is hosted by pyritiferous quartz veins and pyritiferous altered granite. The mineralized features generally trend northeasterly and are thought to be Late Cretaceous or Tertiary in age. To date, mineralization has been located in four areas of the Elk North claims: Siwash North, South Showing, North Showing and Siwash Lake.

During the 1989 field season, bedrock was exposed in 11 trenches and three stripped areas in the Siwash North area. A mineralized quartz vein hosted in granite and andesitic volcanics was traced over a strike length of 700m. Panel sampling across the vein at roughly 10m intervals defined two high grade zones which average 10.87 gm/tonne Au over 2m true width along a strike length of 125m and 20.16 gm/tonne Au over 2m true width along a strike length of 116m. Individual panel samples returned values up to 100.4 gm/tonne Au over a true width of 0.94m (2.927 oz/t Au over 3.1 ft).

Twelve diamond drill holes totalling 752m were drilled in four fences to test the Siwash North zone at depth. The mineralized structure was traced to 200m down dip on one fence and results included values up to 189.7 gm/tonne Au over 0.26m (5.533 oz/t Au over 0.85 ft).

In the South Showing area 481 metres of trenching and 240 metres of stripping exposed a northeast trending mineralized structure hosted in brecciated and clay altered granite. Results from chip sampling included values up to 50,032 ppb Au over 0.85m (1.459 oz/t Au over 2.8 ft) from pyritic quartz veins.

Two trenches totalling 195m were dug in the Siwash Lake area exposing locally altered granite. A panel sample of altered pyritic andesite dyke returned a value of 31.1 gm/tonne Au over 0.86m (0.908 oz/t Au over 2.8 ft).

A total of 737 soil samples were collected in the Boulder Lake area of the Elk North claims. Several weak southeast trending gold anomalies were defined.

The results of exploration on the Elk property are extremely encouraging. High grade sections with mineable widths have been defined in the Siwash North area by high density surface panel sampling. Promising gold bearing structures have been outlined in the Siwash North, South Showing, North Showing and Siwash Lake areas. Strong and extensive soil geochemical anomalies have been outlined south of the South Showing area and have yet to be tested by trenching. Excellent access is provided by the Okanagan Connector highway, scheduled for completion by September 1990, which passes 2 km from the Siwash North mineralized structure. Continued aggressive exploration is definitely warranted.

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2.0 RECOMMENDATIONS

The following two phase exploration program is recommended:

PHASE I:

- Grid drilling in the Siwash North area to test the continuity of the gold bearing structure to a down dip depth of 200m. Approximately 5000m in 72 holes would be required to complete a 50m spaced grid over this area.

- A total of 400m in 6 holes to determine the style and continuity of down dip mineralization in the South Showing area, spaced at roughly 100m.

- Testing the North Showing area quartz vein at depth by 200m of drilling in four holes.

- Stripping of the Siwash North quartz vein should be completed to determine continuity of the system and gold grade on surface.

- Testing the Siwash Lake area soil geochemical anomalies by five trenches totalling approximately 600 metres.

- Ten trenches totalling 2500m to test anomalous gold soil geochemical trends in the Agur option area located approximately 800m south of the South Showing. One kilometre of road is required to access the trench locations.

- Geochemical soil sampling at 50m spacing on 200m lines on the Elk 42, 44 and 45 claims. Detailed fill-in sampling on a 50m by 50m grid around anomalous sample locations defined in the above areas and those outlined during the 1989 program. An estimated 1240 coarse grid and 2100 detailed grid samples should be collected.

- A 60 line-kilometre magnetometer and VLF-EM survey over the Agur option area to help define the orientation and location of potentially mineralized structures.

PHASE II:

The second phase of the project is subject to the results of the phase I drilling and entails detailed drilling at 25m centers around holes with either high grade or thick vein intercepts. Step-out drill holes in the North and South Showing areas are recommended subject to results from the preliminary drilling.

Respectfully submitted

CORDILLERAN ENGINEERING LTD.

W. Jakubowski

Wojtek Jakubowski, B.Sc.,
Geologist

WJ/z
March, 1990

3.0 INTRODUCTION

This report describes the results of a soil geochemical, trenching and diamond drilling program conducted on the Elk North area, comprising Elk 1-18, 20-27, 29-30, 43-54, 62-65 and 71-73 mineral claims, during the period June 1 to November 5, 1989. The work was carried out by Cordilleran Engineering Ltd. for Fairfield Minerals Ltd. and Placer Dome Inc.

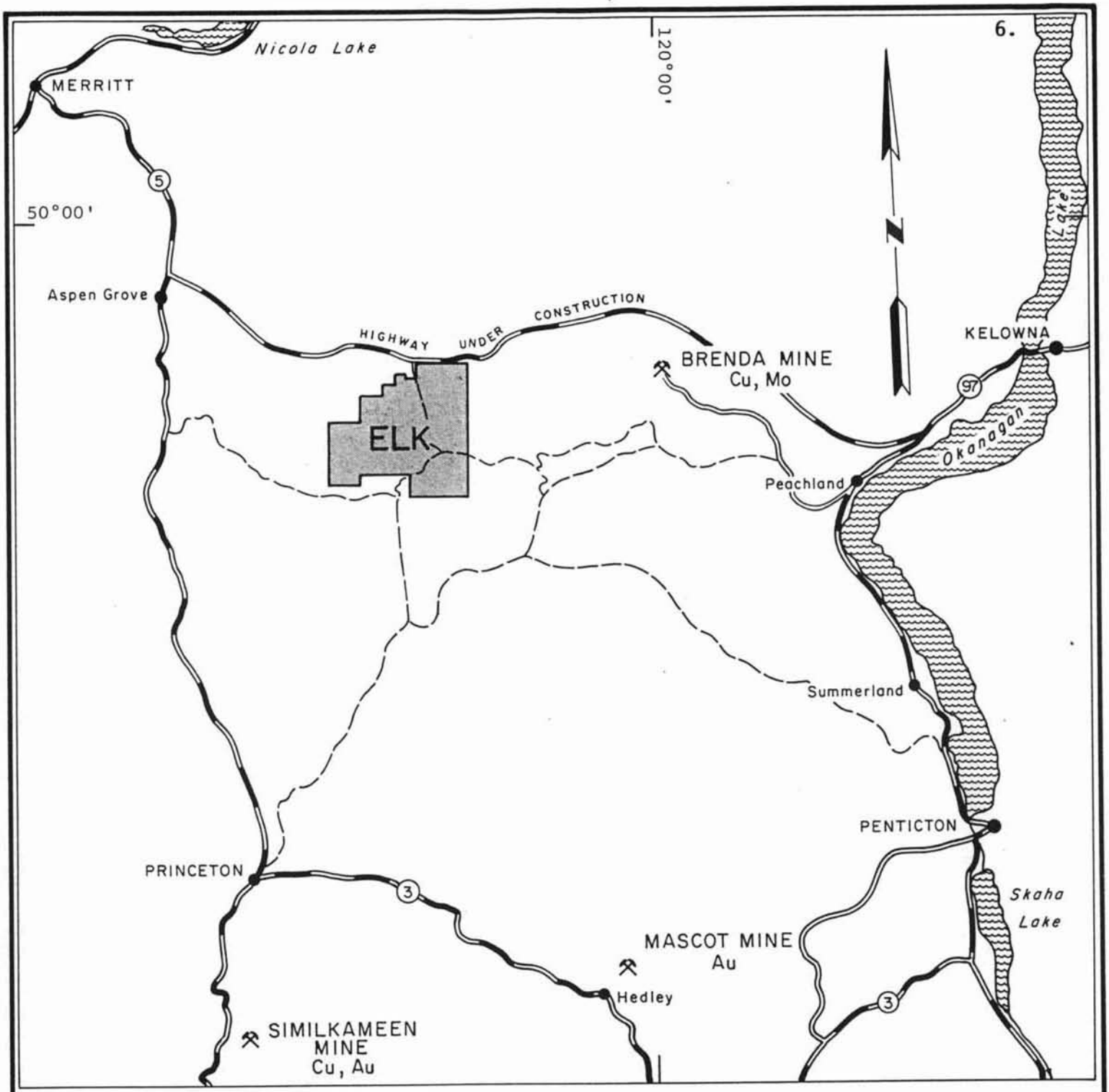
3.1 LOCATION AND ACCESS (Figure 1)

The Elk property is located 40 kilometres west of Okanagan Lake in southern British Columbia approximately midway between Merritt and Summerland, at latitude 49°50'N and longitude 120°19'W (Figure 1). The claims cover heavily forested rolling terrain of the Trepanege Plateau highlands. Elevations range from 1300 to 1750 metres above sea level. Portions of the property have been recently logged, and future operations are planned for the northern and southwestern claims. Access to the property is excellent with good gravel roads connecting to Princeton, Merritt, Peachland and Summerland. All of these centres are within one and one-half hours drive from the property. A new highway, the Okanagan Connector, currently under construction from Merritt to Westbank, passes through the northern claims.

Field operations in 1989 were based out of a tent camp centrally located on the property.

3.2 CLAIM DATA (Figure 2)

The Elk North block consists of 30 two post claims, 13 four post claims and four fractional claims comprising 256 units (Table 1). Work carried out on the remainder of the property, the Elk South area, was reported in Cordilleran Engineering Ltd., 1989.



FAIRFIELD MINERALS LTD.
PLACER DOME INC.

LOCATION MAP

ELK GOLD PROPERTY

SOUTH OKANAGAN AREA, B.C.

0 10 20 30 Kilomtres

0 10 20 Miles

Scale 1 : 500,000

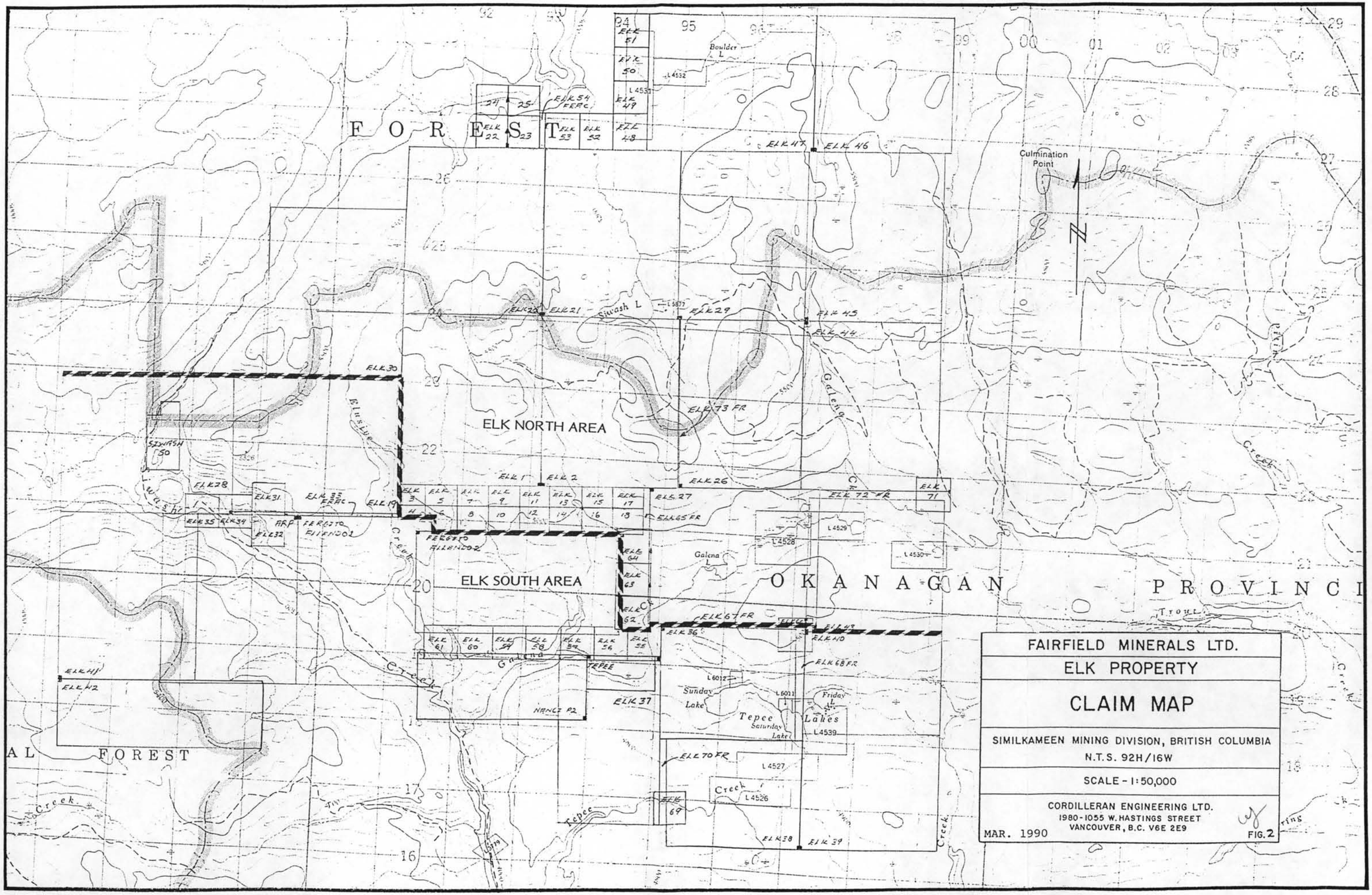
CORDILLERAN ENGINEERING LTD.
1980-1055 W. HASTINGS STREET
VANCOUVER, B.C. V6E 2E9

FEBRUARY 1990

FIGURE 1

Table 1: **CLAIM DATA as at January 31, 1990**

CLAIM	UNITS	RECORD NO.	EXPIRY DATE
ELK 1	20	2737	28 NOV 1998
ELK 2	20	2738	28 NOV 1998
ELK 3	2-post	2744	28 NOV 1996
ELK 4	2-post	2745	28 NOV 1996
ELK 5	2-post	2746	28 NOV 1996
ELK 6	2-post	2747	28 NOV 1996
ELK 7	2-post	2748	28 NOV 1996
ELK 8	2-post	2749	28 NOV 1996
ELK 9	2-post	2750	28 NOV 1996
ELK 10	2-post	2751	28 NOV 1996
ELK 11	2-post	2752	28 NOV 1996
ELK 12	2-post	2753	28 NOV 1996
ELK 13	2-post	2754	28 NOV 1996
ELK 14	2-post	2755	28 NOV 1996
ELK 15	2-post	2756	28 NOV 1996
ELK 16	2-post	2757	28 NOV 1996
ELK 17	2-post	2758	28 NOV 1996
ELK 18	2-post	2759	28 NOV 1996
ELK 20	20	2740	28 NOV 1999
ELK 21	20	2741	28 NOV 1999
ELK 22	2-post	2760	28 NOV 1999
ELK 23	2-post	2761	28 NOV 1999
ELK 24	2-post	2762	28 NOV 1999
ELK 25	2-post	2763	28 NOV 1999
ELK 26	20	2742	28 NOV 1998
ELK 27	20	2743	28 NOV 1996
ELK 29	20	3034	24 SEP 1999
ELK 30	20	3035	24 SEP 1999
ELK 43	16	3336	7 MAY 1998
ELK 44	20	3373	6 JUN 1998
ELK 45	20	3374	6 JUN 1999
ELK 46	16	3375	5 JUN 1999
ELK 47	20	3376	6 JUN 1999
ELK 48	2-post	3377	4 JUN 1999
ELK 49	2-post	3378	4 JUN 1999
ELK 50	2-post	3379	4 JUN 1999
ELK 51	2-post	3380	4 JUN 1999
ELK 52	2-post	3381	6 JUN 1999
ELK 53	2-post	3382	6 JUN 1999
ELK 54FR	1	3383	6 JUN 1999
ELK 62	2-post	3418	6 JUL 1996
ELK 63	2-post	3419	6 JUL 1996
ELK 64	2-post	3420	6 JUL 1996
ELK 65FR	1	3421	6 JUL 1996
ELK 71	2-post	3427	7 JUL 1998
ELK 72FR	1	3428	7 JUL 1998
ELK 73FR	1	3465	19 AUG 1990



FAIRFIELD MINERALS LTD.

ELK PROPERTY

CLAIM MAP

SIMILKAMEEN MINING DIVISION, BRITISH COLUMBIA
N.T.S. 92H/16W

SCALE - 1:50,000

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

MAR. 1990

FIG. 2

3.3 HISTORY:

During the first half of the century the El Paso adit was driven into volcanic rocks in the area currently covered by the Elk 31 claim. Quartz vein-hosted lead-zinc-silver-gold mineralization was encountered. No production of ore was achieved.

Don Agur of Summerland, B.C. has prospected and trenched the north and west parts of the present Elk property area as well as a large region to the south along Siwash Creek during the last 40 years.

Phelps Dodge Corporation of Canada Ltd. carried out copper exploration during 1972 which included mapping and soil geochemistry on the present Elk 19, 28, 31, 32, 34, 35, Siwash 50 and Arp claims.

Utah Mines Ltd. conducted mapping, geochemistry, IP geophysics and trenching to evaluate copper mineralization on the Siwash claim group which, in part, covered the present Siwash 50 and Elk 28 claims.

Brenda Mines Ltd. worked on the Siwash claim group and on the southern part of the present Elk property. A rigorous copper exploration program including mapping, soil geochemistry, geophysics, trenching and diamond drilling was undertaken between 1979 and 1981. Work was done on the area currently covered by the Elk 19, 28, 31 to 37, 41, 42, Arp, Fergito Allendo I, II, Nanci P2 and Tepee claims.

Exploration for molybdenum was undertaken by Cominco Ltd. during 1980 on what is now the Elk 26, 27, 29, 43 to 45, 71 and 72 claims. Work included geological mapping and soil geochemistry.

No significant discoveries resulted from the above programs.

The Elk 1 to 27 claims were staked in November 1986 by Cordilleran Engineering Ltd. for Fairfield Minerals Ltd. to cover new showings of gold-silver mineralization hosted in pyritic quartz veins cutting a granite batholith and andesite dykes. Preliminary hand trenching and soil sampling were conducted.

During 1987, wide-spread and detailed grid soil sampling programs were undertaken to define areas anomalous in gold. Nine trenches, totalling 1528m were excavated in two areas to test soil geochemical targets, exposed quartz veins and altered breccias hosted in granite. IP, magnetometer and VLF-EM geophysical surveys were carried out over the trenched areas. The Elk 28 to 30 claims were staked in September 1987 to acquire ground along projections of favourable geochemical trends.

The 1988 program consisted of collecting 2283 soil samples on the claims acquired in 1987 and trenching in Siwash North and Elusive Creek areas. Four kilometres of road was constructed for access and eleven trenches totalling 2784 metres exposing quartz-vein-hosted gold mineralization were mapped and sampled. The Elk 31 to 37 claims were staked to cover favourable areas.

3.4 1989 EXPLORATION PROGRAM

The Elk 38 to 73 claims were staked during 1989 to cover projections of anomalous soil geochemical trends.

The exploration in the Elk North area included soil sampling on the Elk 46 to 54 claims. A total of 20.7 km of baseline was cut and picketed at 25 metre intervals for soil grid and geophysical survey control. 737 soil samples were collected on stations 50m apart at 200m line spacings, and 50km of ground magnetometer and VLF-EM surveys wre conducted on cut or flagged lines 200m apart.

Eight trenches and one stripped area, totalling 515 linear metres of bedrock exposure, were excavated in the South Showing area to test continuity of the mineralization outlined by 1987 trenching. A total of 271 chip or panel samples were collected and sent to Acme Analytical Laboratories for gold analysis. The trenches and stripped area were mapped at 1:100 scale and the results were compiled at 1:500.

Quartz-vein-hosted gold mineralization in the Siwash North area, outlined by wide spaced trenching in 1988, was more clearly defined by 11 fill-in trenches and three stripped areas totalling 1512 linear metres. These were tested by 776 continuous chip or panel samples assayed for gold. The trenches and stripped areas were mapped at 1:100 scale and compiled at 1:500 scale.

Two trenches were excavated in the Siwash Lake area totalling 195 metres to explore for the sources of combined soil geochemical and Mag-VLF EM anomalies. The trenches were mapped as above and 19 continuous chip or panel samples were collected and analyzed for gold.

Twelve HQ and NQ diamond drill holes totalling 752m were drilled in four fences along the Siwash North zone. The gold bearing quartz vein system was traced to 200m down-dip.

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4.0 GEOLOGY

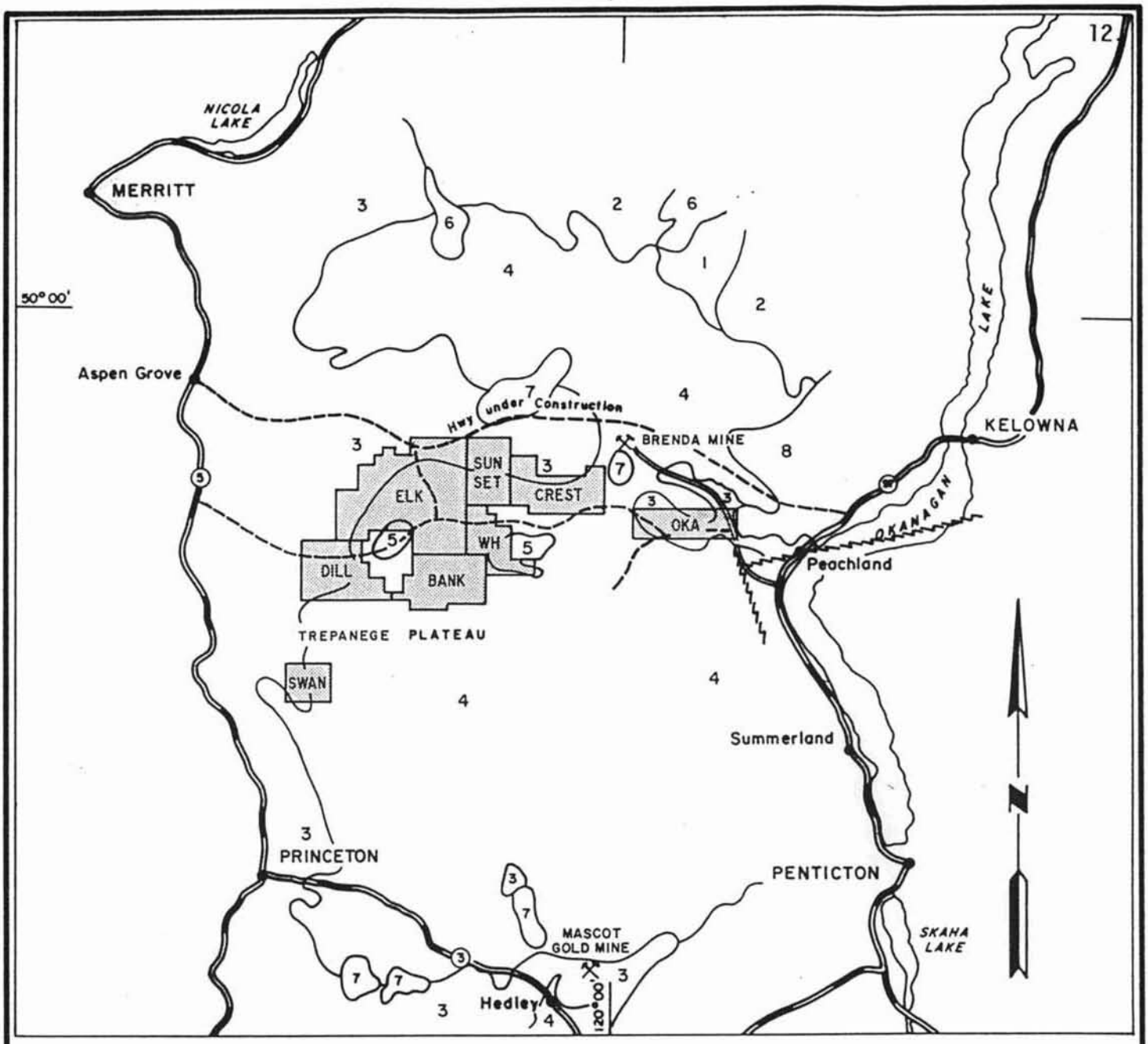
4.1 REGIONAL GEOLOGY (Figure 3)

The Elk property is located in the Intermontane tectonic belt of south central B.C. Princeton Geological Map 888A by H.M.A. Rice (1947) shows the area to be underlain by Upper Triassic volcanics and sediments of the Nicola Group and by Jurassic granites and granodiorites of the Similkameen Intrusions. The contact between these units trends northeasterly across the property. Upper Cretaceous feldspar porphyry stocks and dykes of the Otter Intrusions occur throughout the claims and a large body to the south is spatially associated with many known showings of copper, lead, zinc and silver.

4.2 PROPERTY GEOLOGY

The western claims area is underlain by steeply west-dipping andesitic to basaltic flows, agglomerates, tuffs and minor siltstone and limestone units of the Upper Triassic Nicola Group. The eastern half of the property is underlain by Jurassic granitic rocks of the Similkameen Intrusions. The contact between these two assemblages trends approximately north-northeast. Upper Cretaceous to Tertiary feldspar porphyry and quartz-feldspar porphyry stocks and dykes of the Otter Intrusions cut both of the above. Breccias containing rounded volcanic, dioritic and granitic fragments in a granitic matrix crosscut Nicola Group rocks, Similkameen and Otter Intrusions. Andesite dykes are the youngest units mapped, post dating all of the above. Mineralization appears to be spatially associated with these (Tertiary?) andesite dykes which are locally cut by quartz veins.

The Nicola Group lithologies mapped on the Elk property consist of dark greyish green, massive basaltic andesite; dark greyish-green, massive basaltic andesite porphyry containing pyroxene and/or amphibole phenocrysts; dark greyish-green basaltic andesite containing 0.5 mm laminae of sand-sized black grains; pale grey-green siliceous laminated tuff; and brownish-green to pale green agglomerates containing fragments from 5 to 50 cm in size. Nicola Group rocks are occasionally silicified, carbonatized or epidote altered. Iron oxide staining and finely disseminated pyrite are common.



LEGEND

8	Eocene/Oligocene	Andesite flows
7	Miocene/earlier	Princeton Group – shale, sandstone
6	Miocene/earlier	Kamloops Group – rhyolite, andesite
5	Upper Cretaceous	Otter Intrusions – granite
4	Jurassic/Cretaceous	Coast Intrusions – granite, granodiorite
3	Upper Triassic	Nicola Group – andesite, basalt, sediments
2	Carbonaceous	Cache Creek Group – argillite, quartzite, andesite
1	Pre Permian	Chapperon Group – schist

Compiled from GSC Maps 15-1961, 1059A, 888A, 886A

FAIRFIELD MINERALS LTD.

PROPERTY LOCATION AND REGIONAL GEOLOGY

ELK, DILL, BANK, WH, SUNSET, CREST, OKA & SWAN PROPERTIES

THOMPSON-OKANAGAN AREA, B.C.

Scale : 1: 633,600

0 10 20 30

Scale in Kilometres

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

MARCH 1990

FIGURE 3

Similkameen Intrusions on the Elk property are pinkish grey, medium- to coarse-grained, equigranular, and contain quartz, orthoclase, plagioclase and biotite. Petrographic analyses indicate the composition varies from quartz monzonite to granodiorite. Pink, sugary textured aplite dykes cut the quartz monzonite and were probably a late phase of the Similkameen event. Quartz diorite related to the Similkameen Intrusions is far less common and occurs as stocks. It is pale grey, generally medium to fine grained and contains visible quartz, plagioclase, biotite and amphiboles. Dykes of quartz monzonite and hornblende-biotite quartz monzonite have also been mapped. They are medium greenish-grey, medium grained and contain feldspar and occasionally hornblende phenocrysts. Alteration assemblages include weak to strong propylitic, argillic, phyllic and silicic, noted predominantly in the trenched areas where these recessively weathering features have been exposed.

The Otter Intrusions comprise quartz-feldspar porphyry, feldspar porphyry and quartz-biotite-feldspar porphyry dykes and stocks. Quartz-feldspar porphyry is extensively clay altered and contains feldspar phenocrysts up to five cm, averaging about five mm. The altered groundmass is beige in colour and extremely friable. Feldspar porphyry rocks range from medium grey to red and contain feldspar phenocrysts 2 to 5 mm in size that vary in quantity from 3 to 40 percent. Petrographic examination of the red, medium packed feldspar porphyry indicated that it is syenitic in composition. Quartz-biotite-feldspar porphyry is greyish beige and is typified by small biotite grains with equal quantities of fine quartz and feldspar phenocrysts.

The breccias noted on the property have granitic matrices and contain rounded to sub-rounded granite, diorite and andesite clasts varying in size from 5 to 25 cm. The elongate breccia bodies vary in width from 5 to 30 metres and trend northeasterly. These zones may be portions of major fault structures, but displacement, if any, is not readily apparent.

Andesite dykes are dark greyish-green, fine grained and vary in thickness from 30 cm to 5 metres. They are commonly muscovite altered and brown weathering. Strong orange and blue clay alteration has also been noted in these rocks.

4.3 STRUCTURAL GEOLOGY

Nicola Group rocks on the west side of the property dip approximately 60 degrees to the west forming the east limb of a syncline mapped by Rice. The syncline trends roughly north-south and its axis passes about five km west of the claims.

The Elk property topography reflects several linear structures, the most prominent being the north to northeast trending features occupied by Siwash Creek, Elusive Creek and a parallel creek 2.5 kilometres to the east. Subtle east-northeast trends are evident on aerial photographs and are commonly associated with mineralization.

Structural deformation in the area appears to be minimal.

4.4 MINERALIZATION

Gold mineralization on the Elk property is hosted by quartz veins and stringers in altered granitic and, less frequently, volcanic rocks. Cross-cutting relationships indicate that the veins are Tertiary in age; they may be related to Upper Cretaceous - Tertiary Otter intrusive events.

In the **Siwash North** area, gold occurs in veins measuring 5cm to 30cm thick, hosted by a zone of strongly sericitic- to phyllic-altered granitic and volcanic rocks. The mineralized zone trends ENE with a southerly dip varying from 20° to 80° (from east to west), and appears to be associated with minor shearing. In general, where the trend of the zone is east and/or the dip is steep (at least 30°), gold grades appear to be higher.

At surface, supergene alteration has leached out most of the sulphides with some pyrite and chalcopyrite remaining. Mineralization occurs primarily as native gold in frothy quartz (strong pyrite boxwork) or in fractures in the vein. Occasionally, the gold occurs as spectacular aggregates of coarse flakes. Gold was also noted in boxworks in phyllic alteration.

In drill core, the mineralization has not been affected by supergene processes. Gold is strongly associated with pyrite and with a blue-grey mineral. Photomicrographs show the gold to be closely associated with this mineral, which may be a Au-Bi alloy (maldonite?) or a Cu-Bi sulfosalt. Au-Cu, Au-Bi and Cu-Bi relationships have been statistically determined. Other minerals include chalcopyrite and minor sphalerite, galena and bornite. Pyrrhotite has replaced pyrite, and is extensively replaced by marcasite.

Gangue mineralogy is relatively simple, with quartz and altered host-rock dominant. Some carbonate material was noted, especially ankerite, which is also present as an alteration mineral in the phyllic facies. Minor barite is also present associated with phyllic/silicic alteration. Sericite flakes are locally abundant. Fluorite was noted in one vein, occurring as very small (<1 mm) zoned purple cubes scattered in the quartz.

In the **South Showing** area, mineralization occurs mainly in quartz stringers in altered granitic rocks, in association with a breccia or with intensely argillized andesite dykes. Gold is rarely visible, and is associated with pyrite and base-metal sulphides. The highest grade sample interval came from a zone of quartz stringers paralleling the breccia, with weak sericitic alteration.

In the **Siwash Lake** area, gold occurs in an intensely argillized and sheared granite near, and paralleling, an andesite dyke. Highest gold grades were associated with intense argillic alteration with accompanying pyrite and an unidentified blue-grey mineral.

4.4.1 Alteration (Figure 4)

On the Elk property higher grade alteration generally contains higher grade gold mineralization.

Seven main types of alteration were recognized throughout the Elk property: Propylitic, argillic, sericitic, K-spar stable phyllic, phyllic, advanced argillic and silicic. Locally, potassic alteration, skarnification, and silicification were noted, but were relatively minor and did not appear to be related to mineralization. The following descriptions refer to granitic rocks except as noted.

propylitic:

Generally light green with biotite and hornblende altered to chlorite. Plagioclase saussuritized. In volcanics, colour is generally olive-green, and rock is soft.

argillic:

Rock is bleached, with plagioclase white and clay-altered; K-spar is slightly altered. Volcanics are bleached to light green or grey.

sericitic:

Typically is pale green with a micaceous sheen, with plagioclase altered to sericite; trace disseminated pyrite may be present. Often associated with quartz veins, and appears to be the minimal alteration associated with gold mineralization. Not recognized in volcanics.

K-spar stable phyllic:

Light pink, green, or yellowish with K-spar fresh and pink and blocky. Plagioclase and mafic minerals are altered to fine-grained quartz-sericite-pyrite. Often occurs with veins and associated with gold mineralization. Not recognized in volcanics.

phyllic:

Generally grey, fine-grained quartz-sericite-pyrite alteration. Usually associated with veins and often gradational to quartz. Apparently most important alteration. Often auriferous.

advanced argillic:

Most or all of feldspar is destroyed, quartz is "free-floating"; often sheared, white in colour. Volcanics are white or blue coloured. Often associated with quartz veins.

silicic:

Quartz veining.

There is a strong symmetrical zoning of alteration around the quartz veins (Figure 4):

VEIN - ADVANCED - PHYLLIC - K-SPAR STABLE - ARGILLIC - PROPYLITIC
ARGILLIC PHYLLIC

Secondary bands and zones of alteration may be present, and any of the alterations may be missing.

At surface, the alteration may produce a striking "rainbow" effect with the rock colour grading from white (vein) through grey, yellow, orange, rust, brown, and green (propylitic). In drill core, the effect is less striking and extensive, but the general pattern is still present.

The alteration and patterns produced by alteration are most important in the Siwash North area. In the South Showing area, alteration was found to be less closely associated with gold values. Veining with gold mineralization, for example, was found several times in weakly propylitized granite with only a very narrow sericitic envelope (less than 0.5cm).

Figure 4:

Photograph of the west wall of trench SN89-3, showing symmetrical zoning of alteration around auriferous quartz vein. Sample of vein assayed 233 gm/T (6.795 oz/t) Au over a true width of 49cm (1.61 ft).

4.4.2 Genetic Considerations

Gold mineralization on the Elk property appears to be related to Tertiary tectonic and intrusive events as inferred from crosscutting relationships.

Throughout the property, quartz veins were mapped cutting Tertiary andesite dykes which had intruded Cretaceous-Tertiary Otter intrusions, Jurassic Similkameen intrusions and Triassic Nicola volcanics. In the Siwash North area one quartz vein was noted crosscut by an andesite dyke. Cataclastic textures in the quartz veins mapped in the Siwash North and North Showing areas suggest reactivation of the structures hosting the veins. Late stage Otter intrusive activity may have been the "heat pump" for the mineralizing fluids. Petrographic analysis indicates that the gold mineralization was a late-stage event in the hydrothermal system, with native gold and associated sulphide minerals filling fractures in pyrite.

During the mineralizing events, hydrothermal fluids permeated fractures in the host rock, depositing quartz and sulphides in the fractures and causing alteration of the wall rocks. These fluids probably had temperatures of about 300°C during the initial stages of mineralization as indicated by sulphide and alteration mineralogy (Panteleyev, 1986).

Briefly, the genetic model for the deposits is thought to be as follows:

1) Deposition of the Nicola volcanics.
2) Emplacement of the Similkameen granitic intrusions.
3) Emplacement of the Otter syenitic intrusions.
4) Fracturing possibly during the Similkameen and/or Otter intrusive events.
5) Intrusion of andesite dykes.
6) Precipitation of quartz veins with pyrite, base metal sulphide and gold mineralization, and associated hydrothermal alteration.
7) Erosion to present level.

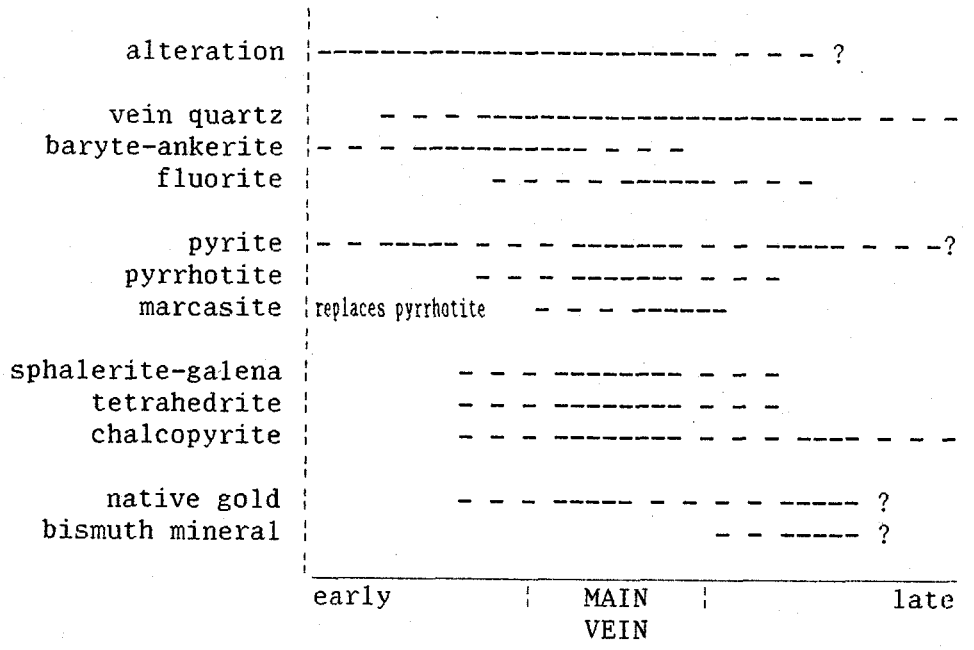


Figure 5:

Paragenetic diagram showing relative timing of alteration, veining, and deposition of sulphide phases. Information is from observations at surface, in drill core, and from photomicrography.

****

5.0 GEOCHEMISTRY

5.1 INTRODUCTION

During 1989, 737 grid soil samples were collected from the Elk North Boulder Lake grid over the Elk 19, 21, and 46-52 claims, 370 trench soil and 1038 trench rock chip samples were collected from the South Showing, Siwash North and Siwash Lake areas on the Elk 1, 2, 20 and 21 claims, and all were analyzed for gold. Twelve diamond drill holes were drilled in the Siwash North area from which 312 core samples were analyzed for gold. A total of 2396 soil samples were collected from 50 by 200m grids and 667 fill-in samples at a 50 by 50m spacing from the Elk South area during 1989. Results from the South area geochemistry are discussed in Cordilleran Engineering Ltd., 1989.

During the period 1986 to 1988, the Elk property was tested with 9092 soil samples collected at 50 metre stations on 200 metre line intervals Fill-in grids at 25m by 50m spacings, established around samples which contained greater than 50 ppb Au, added another 4995 for a total of 14,087 soil samples.

Table 2 SOIL AND ROCK SAMPLE DISTRIBUTION

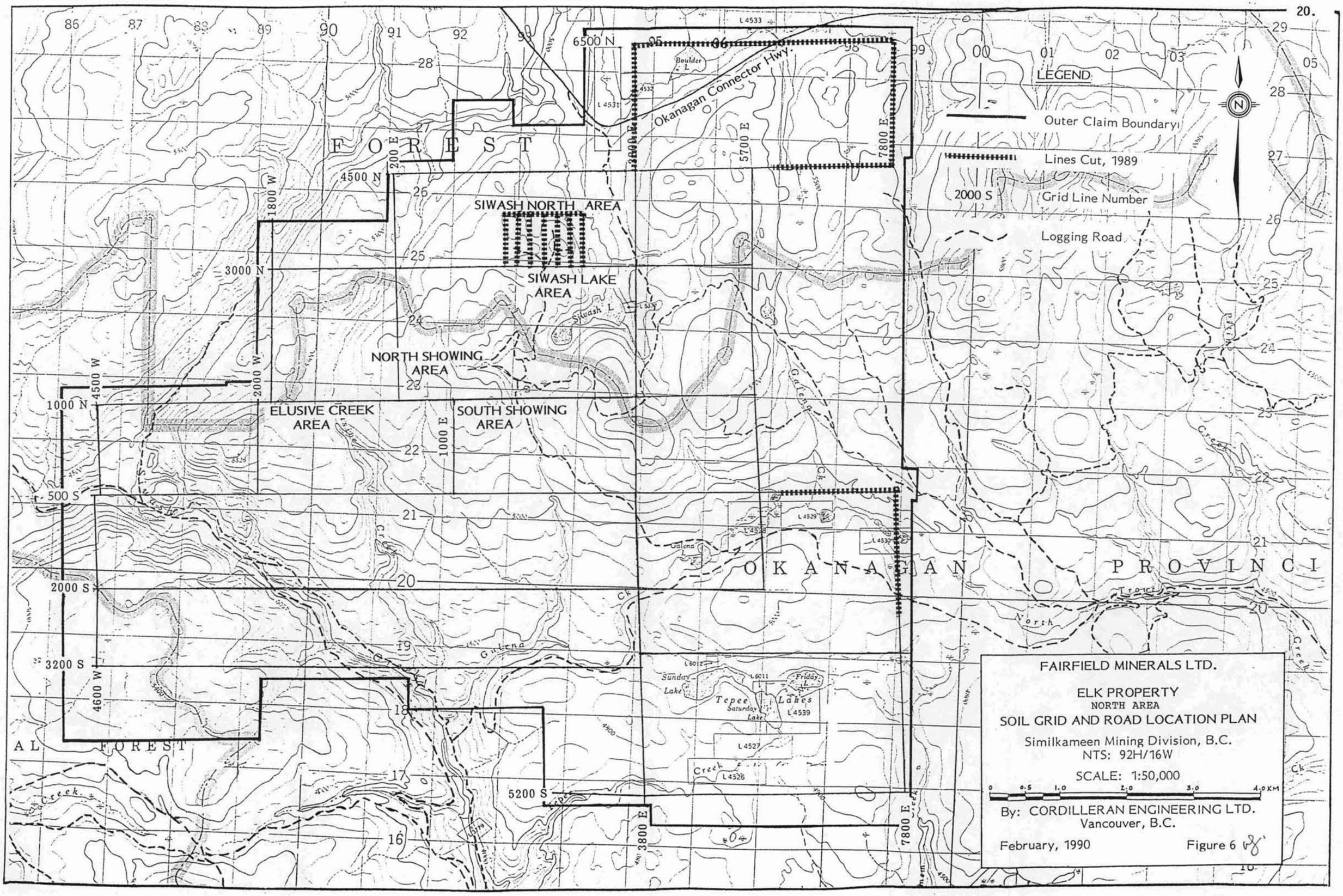
Location	No. of Soil Samples	No. of Rock Samples
Grids	737	
Trenches	370	1038
Drill holes		312

The analytical results from soil, rock and core samples are in Appendix "B".

5.2 SOIL GEOCHEMISTRY

Control for soil sampling was provided by 20.7 km of cut baseline, picketed at 25m intervals (Figure 6). Sample lines were oriented north-south using compass and hip chain, and sample stations at 50m intervals were marked with grid-numbered flagging tape. Samples were collected from the "B" soil horizon and placed in kraft paper bags numbered with grid coordinates.

Trench floor soil samples were collected every five metres at the soil-rock interface along the length of the trenches. Samples were placed in kraft paper bags and labelled with a station number denoting the location in the trench.



FAIRFIELD MINERALS LTD.

ELK PROPERTY
NORTH AREA
SOIL GRID AND ROAD LOCATION PLAN

Similkameen Mining Division, B.C.
NTS: 92H/16W

SCALE: 1:50,000

0 0.5 1.0 2.0 3.0 4.0 KM

By: CORDILLERAN ENGINEERING LTD.
Vancouver, B.C.

February, 1990 Figure 6

Samples were partially dried in camp and shipped to Acme Analytical Laboratories in Vancouver for gold analysis. At the lab, soils were dried and sieved to obtain 10 grams of minus 80 mesh size fraction. This portion was then ignited to 600 degrees Celsius and digested with hot aqua regia. Gold was extracted by MIBK (methyl isobutyl ketone) and the solution analyzed for gold by graphite furnace atomic absorption.

5.2.1 Soil Geochemistry Results

Soil sample gold values from the Boulder Lake grid are plotted on Plate 1. Several weak to moderately anomalous southeast gold trends were defined. The largest anomaly extended from 5000E, 5750N to 5800E, 5350N, a distance of 900m, with values up to 38 ppb Au. Weak northeast trends branched from the southeast trends over a distance of one sample line spacing (200m). The highest value on the grid was 104 ppb located at grid coordinate 6200E, 5050N. No fill-in sampling has been carried out on this grid to date. The density and strength of these anomalies are less than those found in the Siwash North or South Showing areas but they must still be considered as significant, and detailed grid sampling is required.

5.3 ROCK GEOCHEMISTRY

Panel and continuous rock chip samples (1028 total) were collected from trenches in the South Showing, Siwash North and Siwash Lake areas during 1989. The panel samples were 0.5 metre wide and both the panel and continuous chip samples were taken using sledge and cold chisel over intervals averaging one metre in length. Panel samples were obtained by chipping five parallel lines of chips along the length of the outlined area to a depth of two to four centimetres, depending on the hardness of the rock. Chip samples consisted of one pass along the sample interval. Aluminum tags with the sample number inscribed were nailed to the rock at all four corners of the panel samples and at both ends of the continuous chip samples. Panel samples (15 to 20 kg) and continuous rock chip samples (2 to 5 kg) were placed in numbered plastic sample bags and shipped to Acme Analytical Laboratories, Vancouver, for gold analysis.

Sample preparation and analysis varied. For samples that were expected to contain abundant gold, the chips were crushed to -1/4", approximately 2 kg ring pulverized and then screened to separate the -100 mesh material. One assay ton (approximately 29 gm) of the +100 mesh fraction was collected and fire assayed for gold. Two 1 assay ton samples of the -100 mesh fraction were also assayed for gold and the results averaged. The values from the -100 mesh and +100 mesh assays were then combined for the final result. This technique is referred to as the sieve and assay method.

Another method, referred to as pan and assay, was used earlier in the season specifically to avoid loss of coarse native gold during sample grinding. Each sample was crushed to -1/4" and approximately 1.5 to 2 kg was split out and panned for native gold. The pan-recovered native gold was determined by fire assay. The remainder of the panned sample was pulverized and subjected to the sieve and assay method.

Samples of apparent lower grade material were assayed by standard fire assay techniques using 1/2 and/or 1 AT portions, or by Fire Assay/Atomic Absorption analysis using 10 or 20 gm -100 mesh samples. Low-grade samples were ground to -100 mesh and a 20 gm sample was analyzed for gold by methods identical to those used for soil sampling.

A total of 312 drill-core samples were shipped to Acme for gold analysis. Core samples from holes SND89-1 & 2 were photographed and shipped unsplit to maximize sample size. All subsequent samples that appeared to be low grade were split and one half of the core sent for analysis. Main zone quartz vein samples were photographed and all the core shipped. Most core samples were analyzed using the sieve and assay method.

All rock samples with values greater than 2.57 gm/tonne Au (0.075 oz/ton Au) over significant intervals were reassayed using the sieve and assay technique. The result of the reassay was averaged with the existing sieve and assay or pan and assay value to produce a final gold value.

5.4 BULK SAMPLING

Four 205 litre (45 gallon) bulk samples were taken at selected sites along the exposed mineralized zone in the Siwash North area (trenches SN89-12, SN89-13, SN89-7 and SN89-14). This was done to check the accuracy of gold grades determined by panel sampling, to evaluate the various size fractions of gold throughout the structure and to select the most efficient milling technique for effective gold recovery. The samples were obtained using a Caterpillar 215 excavator which scraped a 12.2m by 2.0m area (SN89-12, 7, 14) and 1.2m by 3.15m area (SN89-13) to a depth of 20cm. Individual samples were then shoveled into a 205 litre container and shipped to the Placer Dome Research Centre, 323 Alexander St., Vancouver. Each sample was dried and crushed to -3/8", fed through a ball mill and partitioned into tails, middlings and concentrate products using gravity separation. Spiral middlings and concentrate were then upgraded on a Wilfley table. Spiral tails and Wilfley middlings and tails were tested for gold using a cyanide leach method. Tails, middlings, and concentrate were tested separately for gold by fire assay using a 1 assay ton sample of each and the results combined to give a single gold value for each bulk sample (Appendix "G").

Panel samples were collected in and around the bulk sample areas. These samples were sent to Acme where they were treated by the seive and assay technique as described in Section 5.3.

5.5 STATISTICAL ANALYSIS

Thirty-element ICP analysis was performed on 18 samples of drill-core to test for significant mineralogical and elemental relationships. Single-element and multi-element regression analyses were performed on the data set. Each pair of significant correlations was fitted to three models (linear, quadratic and cubic) to find the most significant correlation. The sample containing the highest gold value and associated values was also edited to see if there was a strong outlier effect.

At a 99% level of confidence, with the high value edited, significant correlation coefficients range from 0.343 to 0.611, with moderate correlations found between Au and Ag, Au and Bi, Ag and Cu, Ag and Bi, and a weaker one between Cu and Bi. Multi-element regression indicates a moderate correlation between Au and (Ag + Cu + Bi). Correlation coefficients were found to approach 1.00 with the high gold value unedited, indicating a strong outlier effect, and were discounted for this reason.

While the results are inconclusive, it appears that gold mineralization is associated with bismuth, silver and copper. More data is required to reduce the outlier effect and establish more definitive conclusions.

5.6 METHODS OF AVERAGE GRADE CALCULATION

A variety of approaches were used to determine the gold contents of trench rock and drill core samples (Table 3). All the analytical data was compiled, and is presented in Appendix "D". True widths were calculated perpendicular to the gold bearing structure. Results from duplicate sample methods were averaged and the values prioritized by analytical method (see "Priority", Table 3). When a sample is treated by two methods of the same priority the values are averaged and the result is promoted to a higher priority. In the cases where different methods of analysis were used, the results from the highest priority technique were chosen for calculating weighted averages of the standard 2.0 metre width. A desired true sample width could be chosen to bring a specific average interval to 2.0 metres. The "From To" column of the data compilation (Appendix "D") was used to indicate the samples to be included in the weighted average calculation. The "1"'s indicate the desired samples and the "2" indicates the last desired sample to be included.

Truncated versions of the relevant data from the main spreadsheet can be found with the Diamond Drill Hole Logs in Appendix "E". These include the "From" and "To" drill hole depths of the samples and only the analytical methods used for drill core analysis. (Priorities 1, 2, 3 and 4, Table 3).

Table 3 METHODS OF SAMPLE ANALYSES

Priority		Method Name	Particle Size (mesh)	Lab Sample Weight (gm)	Extraction Method	Quantitative Method	Reported Units
	2	Pan & Assay					
		(1.0 AT)	-100	29	Fire Assay	Weight/ICP	oz/t
1			+100	29	"	" "	oz/t
Avg	2	Sieve & Assay					
		(1.0 AT)	-100	29	"	" "	oz/t
			+100	29	"	" "	oz/t
3	4	FA (1.0 AT)	-100	29	"	" "	oz/t
Avg	4	FA (0.5 AT)	-100	14.5	"	" "	oz/t
5	6	FA/AA	-100	20	"	AAS	ppb
Avg	6	MIBK/AA	-100	10	Aqua regia + solvent	AAS	ppb

****

6.0 EXCAVATOR TRENCHING

6.1 INTRODUCTION

Trenching was undertaken in the South Showing and Siwash North areas to confirm the continuity and grade of gold bearing structures exposed by trenching in 1987 and 1988. Anomalous gold soil geochemical and VLF-EM targets were tested by trenching in the Siwash Lake area.

In the South Showing area, breccia and alteration zones hosting gold mineralization, exposed by five trenches in 1987, were further defined by eight trenches and one stripped area. Significant gold mineralization was found in quartz veins associated with a northeast trending breccia hosted by Similkameen granite in trench SS89-4 and stripped area SS89-7. Results from sampling include 23.55 gm/tonne Au (0.687 oz/t) over 0.85m (2.8 ft). The breccia has been traced over a strike length of 800 metres although mineralization appears to be erratic within this zone.

Eleven trenches were excavated and three areas stripped in Siwash North to more clearly define the continuity and grade of quartz-vein-hosted mineralization found during 1988. The vein system trends approximately 80 °, dips south, and is hosted by Similkameen granites and Nicola andesitic volcanics. The vein structure has been exposed by 15 trenches over a strike length of 700m. Panel samples were collected at ten metre intervals (locally five metre) along the structure within the three stripped areas, which exposed 368 metres of strike length. Averaging of panel samples across true widths of 2.0 m (6.6 ft) returned 10.80 gm/tonne Au (0.315 oz/t) over a strike length of 143m (470 ft) in one zone and 20.16 gm/tonne Au (0.588 oz/t) over a strike length of 115m (377 ft) in a second.

The Siwash Lake area, 700m south of the Siwash North zone, contains numerous gold soil geochemical anomalies up to 1210 ppb. Two of these anomalies, one of which coincided with a VLF EM conductor, were tested by two trenches totalling 195 metres. The trenches exposed Similkameen granitic rocks cut by alteration zones and quartz stringers. An argillically altered pyritic andesite dyke in trench SL89-1 returned values up to 12.69 gm/tonne Au (0.370 oz/ton) over a true width of 0.86m (2.8 ft).

6.2 TRENCH OPERATIONS

Twenty-one trenches and four stripped areas were excavated in three target areas (South Showing, Siwash North and Siwash Lake) utilizing a Caterpillar 215 LC excavator. A similar machine was used on some occasions on the larger stripped areas. Bedrock was attained in all of the excavated areas although irregular rock surfaces, flooding and deep overburden sometimes slowed progress. Depth of trenches varied from 0.5 to 2.5 metres and averaged 1.5 metres. The rate of trenching averaged 6.3 metres per hour. Trench statistics are summarized in Table 4.

Two types of quick detachable buckets were used on the machine: a thirty-six inch toothed bucket for digging through overburden and a sixty inch smooth edge bucket for cleaning soil from the bedrock surface. A Sullair 180 CFM air compressor and hose were used to clean remaining soil from trench floors and a Honda pump to dewater and wash sections of trenches.

Each trench was mapped in detail at 1:100 scale and the geology was compiled at 1:500 scale (Plates 3, 4, 8, 10). The stripped areas were also mapped at 1:100 and compiled at 1:200 and 1:500. Panel samples, 0.50m wide by generally 1.0m long, and 1.0m continuous rock chip samples were collected across altered or favourable looking sections of trench floors and walls. Four 205 litre bulk samples of the mineralized zone were collected from four Siwash North exposures. Significant gold results are plotted on the trench plan maps (Plates 2-10) and a complete list of samples, true widths and weighted averages are included in Appendix "A". Soil samples were collected from the overburden - rock interface along the trenches at five metre intervals and, where applicable, are graphed on the trench plans.

The trenches were surveyed using a Brunton compass, 50m steel chain and clinometer. The surveys were tied into the 3000N cut line in the Siwash North and Siwash Lake areas and to the 2000E, 625N soil sample station in the South Showing area. Survey control points were established in the Siwash North area by Ferguson and Associates using a Wild transit/EDM and tied into the 3000N, 2350E cut line station.

South Showing trenches SS89-1, 2, 3, 5, 9, Siwash North trenches SN88-1, 2, 3, SN89-8 and Elusive Creek trenches EC88-1, 2, 3, 4, 5 were backfilled and seeded. Trenches SS89-4, 6 and 8 were only partially backfilled and seeded to leave the mineralized zones open for resampling.

Table 4 TRENCH SUMMARY

Trench Number	Length (m)	Width (m) Top	Bottom	Average Depth	Estimated Volume (m^3)	Number of Samples Analysis Soils	Rock	Assay Rock
Siwash South:								
SS89-1	44.1	2.4	1.5	1.5	132	10		19
-2	58	2.5	1.5	1.5	174	13		14
-3	61	3	1.5	1.5	206	13		32
-4	87.3	3	1.5	2.2	432	21		44
-5	54.3	2.5	1.5	1.5	163	12		19
-6	76.6	3	1.5	2.5	431	13		44
-8	50	2.5	1.5	1.8	180	11		25
-9	50	2.0	1.5	1.5	131.3			19
	481.3							
Stripped Area								
SS89-7	34.2	10	7	1.5	436			55
Siwash North:								
SN89-1	43	2.0	1.5	1.5	113	10		24
-2	44.7	2.0	1.5	1.5	117	10		15
-3	54.6	2.2	1.5	1.7	172	12		45
-4	151	3.0	1.5	2.2	748	31		56
-5	110	2.0	1.5	1.5	289	23	32	32
-6	72	2.0	1.5	1.4	176	15	37	
-7	107	2.0	1.5	1.3	218	22	22	13
-8	301	1.8	1.5	1.4	645	61		98
-9	118	2.0	1.5	1.4	289	25		21
-10	69	1.7	1.5	0.7	77	14		21
-11	74	1.7	1.5	0.5	59	15		23
	1144.3							
Stripped Area								
SN89-12	195	9	7	1.5	2340			180
-13	123	10	8	1.0	1107			62
-14	50	23	21	0.7	770			67
	368							
Siwash Lake:								
SL89-1	120	2.0	1.5	1.5	315	24		9
-2	75	2.0	1.5	1.2	158	14		10
	195							

6.3 TRENCH RESULTS

6.3.1 SIWASH NORTH AREA

The relative locations of the Siwash North trenches are shown on Figure 7, of the stripped areas on Plates 3 to 7, and significant analytical results are given in Table 5.

Trench SN89-1 (43.0 m) was excavated 20m west of trench SN88-1 to test the westward extent of quartz-vein-hosted mineralization. The northern 30m of the trench (from 3398N to 3368N) is underlain by Nicola Group andesitic volcanics, and the remainder by Similkameen granitics. The andesites show alteration from weak propylitic to intense argillic, with pods and veins of phyllic alteration. The contact with the granite is sheared, brecciated and trends about 100°. The remainder of the trench is underlain by fresh to moderately propylitized to weakly argillized granitic rock. No significant gold values were returned from sampling.

A 50cm quartz vein, trending 070/65S, was exposed at 3380N. This vein, hosted by intensely argillized and moderately phyllic altered andesite, is white, frothy, vuggy, and contains about 2% pyrite (locally to 30%). A 5cm quartz vein with a 20cm phyllic envelope and about 20% pyrite occurs at 3378N, with trend 070/65S. No significant value was returned from this vein, nor from a second 5cm vein with about 2% pyrite at 3375N.

Trench soils confirm the main vein as the mineralized structure. Anomalous values to 18500 ppb Au (0.540 oz/ton) were returned, showing slight southern displacement.

Trench SN89-2, (44.7m) was dug 30m east of trench SN88-1 to test the continuity of mineralization encountered in trenches SN88-1 and SN88-2. From the north end to 3410N, the trench exposed locally altered Nicola Group volcanics. Some granitic dykes trending about 080° were intersected, with the batholith contact at 075°. The remainder of the trench is underlain primarily by granitic rocks with alteration grading from propylitic to phyllic. A 3.0m breccia body trending 065° was intersected at 3402N, with no significant values returned. The breccia contains about 40% fragments of granitic rock with up to 5% rounded andesitic fragments in a clay-rich matrix. The breccia appears to be related to a nearby reverse fault.

Five pyritic quartz veins, hosted by phyllic altered granitic rock, occur over a 7.0m interval from 3398N to 3391N, with average trend 050/40S. The mean thickness is about 5cm, with one vein at 3393N having a true thickness of 20cm.

Trench floor soil sample results are anomalous, with values to 2120 ppb, over the area of quartz veining and displaced moderately to the south.

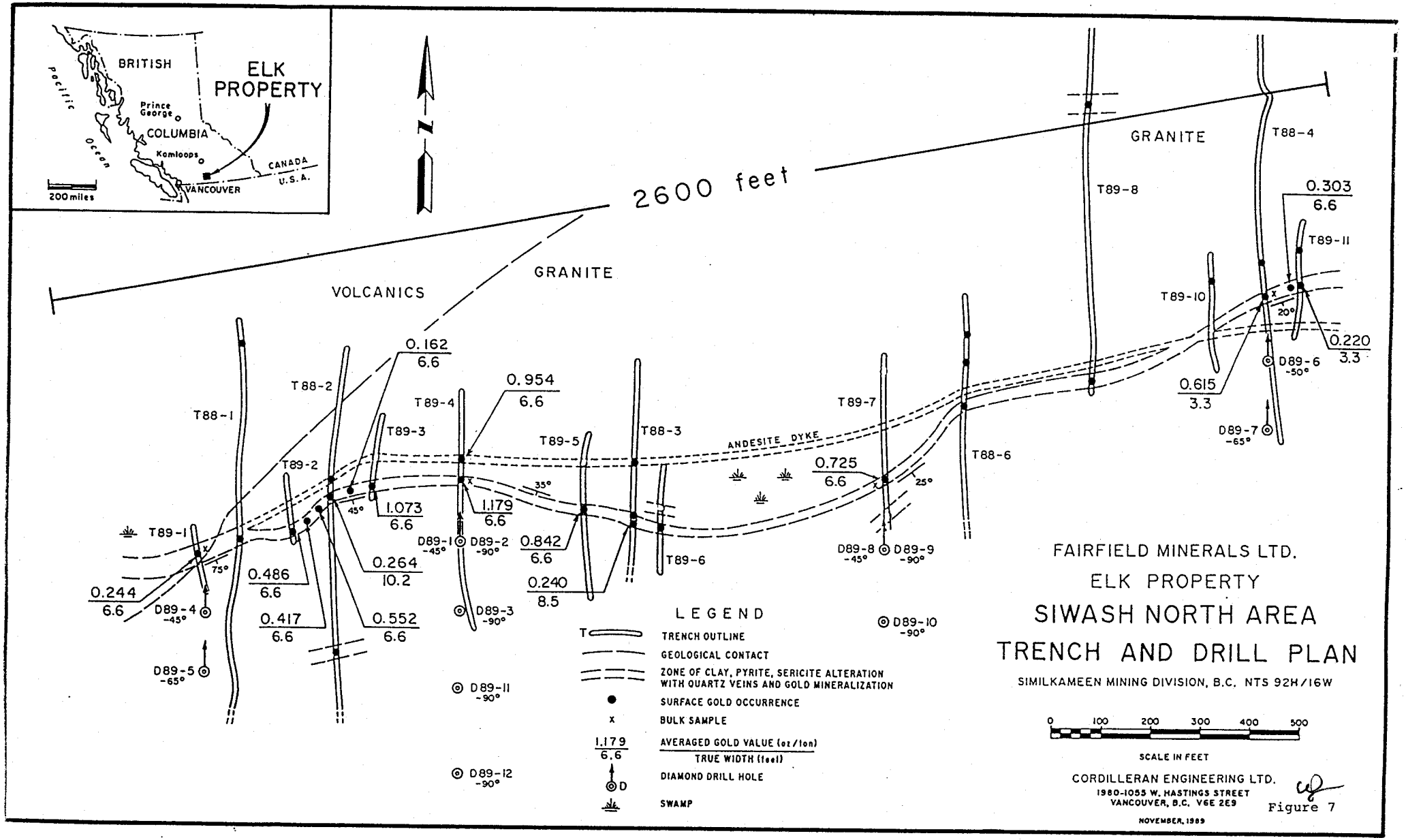

BRITISH COLUMBIA
ELK PROPERTY
Prince George
Kamloops
VANCOUVER
CANADA
U.S.A.
Pacific Ocean
200 miles
N
2600 feet
VOLCANICS
GRANITE
GRANITE
ANDESITE DYKE
T88-1
T88-2
T88-3
T88-4
T88-6
T89-1
T89-2
T89-3
T89-4
T89-5
T89-6
T89-7
T89-8
T89-10
T89-11
0.162 6.6
0.954 6.6
0.303 6.6
0.220 3.3
0.615 3.3
0.725 6.6
1.073 6.6
1.179 6.6
0.842 6.6
0.240 8.5
0.264 10.2
0.244 6.6
0.486 6.6
0.417 6.6
0.552 6.6
D89-1 -45°
D89-2 -90°
D89-3 -90°
D89-4 -45°
D89-5 -65°
D89-6 -50°
D89-7 -65°
D89-8 -45°
D89-9 -90°
D89-10 -90°
D89-11 -90°
D89-12 -90°
LEGEND
TRENCH OUTLINE
GEOLOGICAL CONTACT
ZONE OF CLAY, PYRITE, SERICITE ALTERATION WITH QUARTZ VEINS AND GOLD MINERALIZATION
SURFACE GOLD OCCURRENCE
BULK SAMPLE
AVERAGED GOLD VALUE (oz/ton) / TRUE WIDTH (feet)
DIAMOND DRILL HOLE
SWAMP
FAIRFIELD MINERALS LTD.
ELK PROPERTY
SIWASH NORTH AREA
TRENCH AND DRILL PLAN
SIMILKAMEEN MINING DIVISION, B.C. NTS 92H/16W
0 100 200 300 400 500
SCALE IN FEET
CORDILLERAN ENGINEERING LTD.
1980-1055 W. HASTINGS STREET
VANCOUVER, B.C. V6E 2E9
NOVEMBER, 1989

Figure 7

Table 5 SUMMARY OF SIGNIFICANT TRENCH ANALYTICAL RESULTS

Trench	Sample Location	Sample Type	Material Sampled	Assay Results Au gm/tonne	Assay Results Au oz/ton	True widths m	True widths ft	Weighted results Au gm/tonne	Weighted results Au oz/ton	True width m	True width ft	Mineralization
SN89-1	3380N	Panel	50cm vn	37.52	1.094	0.86	2.8	16.42	0.479	2.0	6.6	2% to
		"	"	5.07	0.148	0.43	1.4					30% pyrite
		"	"	16.46	0.480	0.60	2.0	6.07	0.177	2.0	6.6	
SN89-2	3393N	Panel	20cm vn	79.17	2.309	0.39	1.3	15.77	0.460	2.0	6.6	pyrite
SN89-3	3424N-	"	Altered	0.96	0.028	0.54	1.8					
	3427N	"	granite	1.99	0.058	0.54	1.8					
	3420N	"	30cm vn	114.76	3.347	0.94	3.1					VG
		"	"	194.16	5.633	0.49	1.6					VG
		"	"	76.49	2.231	0.54	1.8	42.65	1.244	2.0	6.6	VG
		"	Alteration	4.73	0.138	0.99	3.3					
	3429N	"	5cm vn	1.30	0.038	0.54	1.8					
		"	"	6.72	0.196	0.68	2.3					
SN89-4	3438N	"	Andesite	57.98	1.691	0.93	3.0					pyrite + VG
		"	2x2cm vn	87.94	2.565	0.93	3.0	34.66	1.011	2.0	6.6	" "
	3428N	"	25cm &	107.69	3.141	0.99	3.2					pyrite + VG
		"	5cm vn	57.63	1.681	0.99	3.2					" "
				125.11	3.649	0.56	1.8	41.97	1.224	2.0	6.6	"
		"	Alteration	11.93	0.348	0.56	1.8					
SN89-5	3404N	"	15cm &	62.30	1.817	0.25	0.8					
		"	20cm vn	99.36	2.898	0.69	2.3	20.37	0.594	2.0	6.6	
		"		28.73	0.838	0.99	3.2					
SN89-6	3387N	"	30cm vn	2.26	0.066	0.34	1.1					
SN89-7	3435N-	"	35cm vn	18.24	0.532	0.99	3.2					10% pyrite +
	3439N	"	"	57.87	1.688	0.57	1.9	21.78	0.635	2.0	6.6	chalcopyrite +
		"	"	156.45	4.563	0.50	1.6					VG
		Bulk						22.29	0.649	2.0	6.6	
SN89-8	3666N	Panel	Qtz vn	26.06	0.760	0.32	1.0	4.39	0.128	2.0	6.6	20% py +(cov,cpy,aspy)
	3656N	"	"	2.71	0.079	0.60	2.0					
	3484N	Chip	Qtz vns	2.88	0.084	0.54	1.8					
	3487N	"	"	1.95	0.057	0.21	0.7					
SN89-10	3550N	"	4cm vn	3.94	0.115	0.32	1.0					weak pyrite
SN89-11	3573N	"	Alteration	4.87	0.142	0.40	1.3					
	3551N	"	Alteration	3.57	0.104	0.15	0.5					Up to 5% pyrite
	3557N	"	w/3x2-5	10.63	0.310	0.25	0.8					
		"	cm vns	5.97	0.174	0.30	1.0					
SS89-2	285N	"	0.5m Alt.	3.09	0.090	0.33	1.1					Fe oxide
SS89-3	327N	"	Alteration	0.79	0.023	0.37	1.2					up to 5% pyrite
	314N	"	2x1cm vns	2.03	0.059	0.36	1.2					1% py,trace cpy,gn
	313N	"	Alt + qtz	1.10	0.032	0.36	1.2					5% py,trace cpy,gn,mo
SS89-4	324N	"	granite	2.91	0.085	0.84	2.8					
		"	"	7.92	0.231	0.84	2.8	4.22	0.123	2.0	6.6	
		"	"	1.20	0.035	0.84	2.8					
		"	Breccia	1.03	0.030	0.84	2.8					
		"	"	1.06	0.031	0.84	2.8					
	308N	"	6x0.5 to	0.72	0.021	0.91	3.0					Up to 5% pyrite
	321N	"	2cm vns	2.09	0.061	0.91	3.0					
SS89-7	1763E	Panel	Qtz vns					5.11	0.149	2.0	6.6	Up to 10% pyrite,minor
	1782E	"	" "					11.01	0.321	2.0	6.6	cpy,sph,gn.

Trench SN89-3 (55.0m) was excavated 20m east of trench SN88-2 to test the continuity of the mineralized quartz vein encountered in trench SN88-3. The northern 11m of the trench, from 3467N to 3456N, exposed an aplitic body with pods of silicified granitic rock. To 3440N, trenching exposed a complex mixture of andesitic volcanics, andesite dykes (?), and aplite dykes, with contact relationships and alteration facies varying widely. The remainder of the trench is underlain by granitic rocks with weak to moderate propylitic alteration and some moderate argillic overprints. At 3427N, a 1.5m andesite dyke was exposed, with a trend of 095/65N. Bands of moderate to strong phyllic alteration and strong argillic alteration are common from 3424N to 3427N.

Two quartz veins trending 080/40S, one of 30cm true width and the other of 5 cm, occur at 3420N and 3429N respectively. The veins are typically white, very frothy, with strong boxworks after pyrite. Coarse grained native gold was observed in these boxworks. From 3419N to the end of the trench, weakly to moderately propylitic altered granite with no significant quartz veining was exposed.

Trench soils are extremely anomalous over the mineralized interval, reaching as high as 92,000 ppb Au (2.683 oz/ton) over the main vein. A slight northward (downslope) displacement of about 3m is apparent.

Trench **SN89-4**, (151m) was excavated 75m east of trench SN88-2 to further test the eastward continuation of gold mineralization. From the north end to 3463N, trenching exposed weakly to moderately propylitized aplite with possible patches of weak potassic alteration. The remainder of the trench is underlain by propylitic altered granite with some argillic and phyllic bands.

At 3438N, a 1.0m andesite dyke trending 080/70S was exposed. The dyke is argillized, and the granite in contact is phyllic and argillic altered with two 2cm quartz veins containing traces of pyrite and rare native gold. At 3428N, the trench intersected a 3.5m wide zone of strong argillic and phyllic alteration, hosting 25cm and 5cm quartz veins. These veins are white, frothy, and strongly boxworked, containing traces of pyrite and coarse grained native gold.

From the mineralized zone to the southern end of the trench, weakly propylitized granitic rock with a few bands of argillic alteration and aplite were exposed. No significant assays were returned.

Trench soil samples returned only moderately anomalous values, with the highest being 490 ppb. The anomaly is broad and centered over the mineralized zone, with no apparent displacement.

Trench **SN89-5**, located 30m west of trench SN88-3 is underlain by granitic rocks.

At 3425N, a 1.0m andesite dyke with trend 100/80S was exposed. Granitic rock surrounding the dyke is phyllic altered with two 2cm quartz veins, as in trench SN89-4, but no significant values were returned from sampling. From 3407N to 3402N, trenching uncovered a zone of quartz veining and phyllic to argillic alteration in granitic rock. Two major veins, 15cm and 20cm thick with trend 095/25S, were exposed at 3404N, with several narrow stringers between the two. The rest of the trench was underlain by weakly propylitized granitic rock, with no other significant assays returned.

Trench soil sampling gave anomalous values over the mineralized zone, including one value of 6930 ppb (0.202 oz/ton).

Trench SN89-6 (71m) was excavated 17m east of trench SN88-3 to test the eastward extent of the quartz vein system. The trench is underlain by weakly to moderately propylitic altered granitic rock with local argillic altered bands. Quartz veining is rare. One 10cm vein was intersected at 3404N, but returned no significant value. A 30cm vein (average true width) at 3387N, hosted by sericitic altered granite (weak phyllic envelope), appears to be the main structure.

Trench soil sampling returned weakly to moderately anomalous values, to 320 ppb, centered on the main structure. No other anomalies were outlined, and only a slight southward displacement is evident.

Trench **SN89-7**, (108m) was excavated to test the westward extension of mineralization encountered in trench SN88-6. Most of the trench is underlain by weakly to moderately propylitized granitic rock with some moderately argillized bands.

A small zone (about 1.5m) of 1cm to 5cm quartz veins trending 115/90 was intersected at 3503N. These veins are hosted by strongly silicified granite, but sampling returned no significant assays. A 1.0m andesite dyke, trending 095/80S, was exposed at 3469N. The dyke is strongly propylitized with argillic envelopes, and returned no significant values. From 3439N to 3435N, a zone of K-spar stable phyllic, intense argillic, and phyllic altered granitic rock was exposed. Included in the section is a 35cm (true width) vuggy, limonitic quartz vein trending 060/35S. The vein contains about 10% pyrite (or boxwork) and traces of chalcopyrite. Coarse grained native gold is present in the vein and rarely in the altered host rock.

A bulk sample was taken over this zone, and shipped to the Placer Dome Inc. laboratory in Vancouver for analysis. The average of the results from the bulk sample and its associated panel samples is 22.25 gm/tonne Au (0.649 oz/ton) over a true width of 2.0m (6.6 ft). The panel samples taken around the bulk sample returned values of 85.27 gm/tonne Au (2.487 oz/ton) and 98.57 gm/tonne (2.875 oz/ton) over true widths of 0.32m (1.0 ft).

A 5 cm quartz vein, trending 035/40E and containing trace pyrite and possible native gold, hosted by phyllic altered granite, was exposed at 3415N. No significant assay was returned.

Trench soils show a small anomaly of 450 ppb at 3497N, associated with the silicified granite near the north end of the trench. A major anomaly displaced about 25m southward from the main mineralization, includes one value of 17,000 ppb (0.496 oz/ton) over the vein at 3425N.

Trench SN89-8 (301m) was dug 80m east of trench SN88-6 to test the extent of mineralization encountered there and in trench SN88-4, and to test the source of a moderate gold soil geochemical anomaly between 3675N and 3625N on line 2550E. The trench is underlain by granitic rocks, with alteration generally weak propylitic.

A zone of strong shearing was exposed between 3668N and 3654N, and is marked by displaced quartz stringers, clay "veins", and local brecciation. The interval trends about 090/85S, with veining and internal shearing trending 110/40S to 160/80W. The quartz stringers are generally less than 2cm thick. One vein, at 3666N, is intensely fragmented in an argillaceous matrix, and contains 20% pyrite with traces of chalcopyrite, covellite and arsenopyrite.

A 4cm quartz vein, trending 035/30E, was exposed at 3521N. The vein and K-spar stable phyllic envelope is weakly pyritic. No significant value was returned.

Between 3497N and 3479N, a zone of potassic, argillic and weak K-spar stable phyllic alteration, with ten 0.5cm to 5cm quartz veins, was intersected. The veins are moderately pyritic, and have an average trend of 045/50S. The main group of seven veins, at about 3494N, returned no significant gold values, while the smaller group returned low values.

A moderate trench soil anomaly, to 450 ppb, was found over the main zone of quartz veining at about 3490N. No other anomalies were noted.

Trench SN89-9 (118m) was excavated as a northward extension of trench SN88-4 to test a 500 ppb soil anomaly. The rock exposed in the trench is primarily weakly propylitized granite with a 50cm andesite dyke trending 100/80S at 3783N.

At 3706N, a 2cm quartz vein with 25% boxwork after pyrite, trending 085/80S, was exposed. A second vein, 5cm thick in a K-spar stable phyllic envelope, was uncovered at 3697N. Neither of these veins returned significant results.

A single-point trench soil anomaly of 410 ppb at 3725N was found, but was not seen to be related to any mineralized structure.

Trench SN89-10 (69m) was dug 35m west of trench SN88-4 to test the westward extent of mineralization. Most of the rock exposed is weakly propylitized granite, with a 0.9m andesite dyke at 3535N, trending 090/80S.

A 4cm quartz vein, trending 040/30E, was uncovered at 3550N. The vein, hosted by moderately sericitized granite, is weakly pyritic. Three intersecting quartz veins, 2cm thick and weakly pyritic, are hosted by weakly sericitized granite at 3522N. The veins trend 010/35E, 020/35E, and 030/35E. No significant results were returned from the latter three.

A moderate trench soil anomaly of 580 ppb is centered over the three veins.

Trench SN89-11 (74m) was excavated about 25m east of trench SN88-4 to test the eastward extent of mineralization. Trenching revealed mainly weakly propylitized granitic rocks, with a 0.60m andesite dyke trending 110/75S at 3534N.

A 2cm quartz vein, with trace very fine grained pyrite and trending 050/20S, was exposed in phyllic altered granite at 3582N. A sample of this material returned no significant value. A second vein in sericitized granite, trending 070° (dip unknown) was exposed at 3573N. From 3557N to 3551N, a zone of phyllic, sericitic, and argillic alteration with three 2 to 5cm quartz veins, trending on average 040/30E, was uncovered. The veins commonly contain up to 5% pyrite or boxworks.

Trench soils returned two moderate anomalies; one centered at 3575N about 5m south of the quartz vein, and the second at 3555N over the main altered zone.

Stripped Area Results

Map Area "A" Trench SN89-12 (Plate 5) was excavated to test the continuity and grade of mineralization encountered in trenches SN88-1 and 2 and SN89-1, 2 and 3, and to trace the zone west of trench SN89-1. The area exposed measures 195m long and averages 9m in width.

The eastern half of the area (from trench SN89-3 to midway between SN88-1 and SN89-1) is underlain by granodiorite and quartz monzonite, with minor aplite dykes. The western half comprises andesitic volcanics, which, in the far west, are intruded by a large aplitic body.

The main mineralized quartz vein, predominantly within strongly phyllic and argillic altered granitic rock, extends for 165m with minor discontinuities and displacements. The vein occupies a shear zone, with gouge (including granulated quartz vein material) occasionally evident on either the footwall or hangingwall. Stretching and narrowing or overlapping and thickening are common, localized features. Several late-stage cross faults cause right-lateral displacements of the vein up to 2m.

The vein material itself consists mainly of white quartz, with traces of sericite. The vein is locally pyritic, with up to 15% pyrite, and is vuggy and locally frothy (possibly a secondary feature). Native gold is occasionally visible.

Between trenches SN89-3 and SN88-2, the vein averages 10cm to 15cm in true thickness and trends an average of 070/45S. Numerous late shears cut the main structure and reduce it locally to 1cm thick. Several subparallel and conjugate (trending 045°) veins, to 5cm thick, also occur. Two strings of panel samples returned weighted averages of 19.47 gm/tonne Au (0.568 oz/ton) at 2083E, and 5.49 gm/tonne Au (0.160 oz/ton) at 2077E, over true widths of 2.0m (6.6 ft).

Between trenches SN88-2 and SN89-2, the vein averages about 15cm in true thickness, locally reaching 30cm. The strike and dip changes from 070/45S in the east to 040/45S in the west. There are a few minor splays off the main vein. A presumed thrust fault, striking 050° with average dip 20° to the north, is marked by a breccia or rubble zone, and has displaced part of the vein 2m to the southeast. Panel sampling returned weighted averages over a 2.0m (6.6 ft) true width ranging from 4.46 gm/tonne Au (0.130 oz/ton) to 17.24 gm/tonne Au (0.503 oz/ton).

From SN89-2 to SN88-1, the main vein splays into numerous 1cm to 5cm veins over a 7m width, running subparallel to each other with an average trend of 055/65S. Several crosscutting shears, with right-lateral slip, trend 115° and displace the structure up to 2m. In general, the alteration in the area is weaker, with phyllic alteration confined to a maximum of 10cm on either side of the veins. Three strings of panel samples gave weighted averages over a 2.0m (6.6 ft) true width of 4.90 gm/tonne Au (0.143 oz/ton), 3.81 gm/tonne Au (0.111 oz/ton), and 4.05 gm/tonne Au (0.118 oz/ton), from east to west.

Between SN88-1 and SN89-1, the vein structure is similar to that described above, but occupies a tighter zone (to 3m wide) with stronger alteration. The veins trend about 075/70S and are on average 5cm thick. Some thickening by repetition along the shear is locally evident. Midway between the two trenches, the granitics are in contact with the volcanics, with the contact oriented at 060° and locally sheared. In the volcanics, a 30cm vein trends 035/85W and is completely shear bounded. Shears trending 115° are common.

Panel sampling returned weighted averages over true widths of 2.0m (6.6 ft) of 11.42 gm/tonne Au (0.333 oz/ton) at 1994E and 16.39 gm/tonne Au (0.478 oz/ton) at 1983E. Two strings of panel samples bounding Bulk Sample SN89-12, at 1982E, 3384N, gave a weighted average of 6.41 gm/tonne Au (0.187 oz/tonne) over a true width of 2.0m (6.6 ft). The bulk sample returned a value of 43.13 gm/tonne Au (1.258 oz/ton) over an interval of 1.2m (3.9 ft), and a weighted average of 11.25 gm/tonne Au (0.328 oz/ton) over a true width of 2m (6.6 ft).

West of trench SN89-1, to about 1943E, the main vein is narrow (maximum 10cm thick) and confined to the shear zone, with trend 070/75S. A few 1cm to 3cm splays occur, subparallel to the main structure. Several cross shears at 130° cut the minor veins and merge into the main structure. Intense argillic alteration along these shears imparts a blue colour to the volcanics. Panel sampling returned weighted averages, over a 2.0m (6.6 ft) true width, of 5.83 gm/tonne Au (0.170 oz/ton) at 1970E and 5.69 gm/tonne Au (0.166 oz/ton) at 1958E.

From 1943E to the western edge of the trench, the rock is mainly aplite, lying in fault contact (at about 000°) with the andesite volcanics. The main shear continues at about 080° to 095°, with minor quartz veining. A block of andesite, moderately phyllic altered, extends to the northwest along a splay of the main shear. No significant values were returned from this area.

In summary, quartz veins, hosted by phyllic and argillic altered granitic and andesitic rocks follow a shear zone for the full trench length of 165m. Medium grade gold mineralization, averaging 10.80 gm/tonne Au (0.315 oz/ton) over a true width of 2.0m (6.6 ft), is present along a strike length of 143m (470 ft), and has strong potential for continuity to the east.

MAP AREA "B" TRENCH SN89-13 (Plate 6) was excavated to test the continuity along strike of the mineralized zone intersected by trenches SN89-4, SN89-5, SN88-3 and SN89-6. The stripped area is approximately 120 metres long, averages 7 metres in width and trends east-west.

The western section of the stripped area (between SN89-4 and SN89-5) revealed a single 10-25cm wide quartz vein trending 110/40S flattening to 20°S to the east. Local shearing along strike is indicated by the presence of sub-angular fragments of quartz in the wall rock. Vein material is greyish white, generally opaque with considerable pyrite boxworks resulting in a "frothy" appearance. Extensive hydrothermal alteration accompanies the vein, dominantly in the footwall. Various assemblages include phyllic and sericitic alteration within the vein, in abrupt contact with strong argillic alteration extending a metre or more into the footwall and about 20cm into the hangingwall. The argillic alteration grades outward into a broad zone of propylitic alteration extending beyond the walls of the trench.

Panel sample strings were collected across the mineralized zone at 10m intervals. Length weighted averages over 2m (6.6 ft) across the vein returned values between 5.45 gm/tonne Au (0.159 oz/ton) and 47.86 gm/tonne Au (1.396 oz/ton). The average of all the panel samples returned a grade of 25.58 gm/tonne Au over 2m (0.746 oz/ton over 6.6 ft) along 70m (230 ft) of strike length.

A second separate quartz vein was exposed at 2205E, 5 metres west of trench SN89-5. This vein is about 5cm thick, returned no significant gold values, and disappears under overburden along the southern edge of the exposure.

The relationship of the two veins was exposed in the eastern portion of the stripped area (between SN89-5 and SN89-6); the "north" vein was contiguous with the main structure west of SN89-5, and the "south" vein appeared just west of SN89-5 and ran more or less continuously in an ESE direction.

The "north" vein decreased in thickness to 1-2cm and its phyllic-argillic alteration halo shrank to 2-3cm. The vein trended 060/20S with minor pyrite boxworks noted. Gold values from panel samples across the zone include 11.21 gm/tonne Au (0.327 oz/ton) across 0.17m (.61 ft). This vein exhibited minor splaying and eventually reduced to two quartz stringers east of trench SN88-3 trending 055/40S with local strike-slip shearing.

The more substantial "south" vein strikes roughly 090° and dips 15°S to 30°S with true thickness varying from 2-20cm. Splaying and extensive strike-sip shearing along both the hangingwall and footwall are common. Several subparallel stringers were noted. Halos of strong phyllic-argillic-propylitic alteration are limited to 10-20cm on either side of the vein. Gold values returned from panel samples across the zone include 18.65 gm/tonne Au (0.544 oz/ton) and 49.82 gm/tonne Au (1.453 oz/ton) over 0.19m (0.6 ft), and 737 gm/tonne Au (0.215 oz/ton) over 0.37m (1.2 ft) with a resulting average of 8.47 gm/tonne Au (0.247 oz/ton) over a true width of 2.0m (6.6 ft) along a strike length of 40m (131 ft). Gold concentrations appear to decrease toward the eastern end of the stripped area.

East and west halves of trench SN89-13 have an average grade of 20.16 gm/tonne Au (0.588 oz/ton) over a true width of 2.0m (6.6 ft) along a strike length of 116m (380 ft).

<u>Map area "D Trench SN89-14</u> (Plate 7) was excavated to expose the mineralized structure encountered in trenches SN88-4, SN89-10 and SN89-11. The area stripped measures about 50m long by 21m wide.

The trench is underlain entirely by granitic rocks, with a 1.0m andesite dyke trending 090/65S along the southern edge. Alteration is less intense than in other areas, varying from weak propylitic to locally strong sericitic, with rare phyllic. A number of later, subparallel shears trending from 020° to 040° displace the structures up to 9m.

In the western half, between trenches SN89-10 and SN88-4, a zone of sericitic alteration varies from 1m to 6m wide. Numerous quartz veins, from 1cm to 5cm thick and striking about 030/40E, occur in the westernmost part in a 4m zone of alteration. At 2610E, the zone pinches to 1m, then swells to 6m. Values returned from the area include 2.50 gm/tonne Au (0.073 oz/ton) over a true width of 0.18m (0.6 ft) and 14.71 gm/tonne Au (0.429 oz/ton) over 0.32m (1.0 ft). The latter string gave a weighted average of 2.57 gm/tonne Au (0.075 oz/ton) over a true width of 2.0m (6.6 ft).

The western end of the stripped area, between trenches SN88-4 and SN89-11, contains two subparallel zones of alteration and veining. The northern zone trends 030/25E to 040/15E, and the southern 040/45E to 020/30E (all readings taken from west to east along the structure). Veining appears to be weak and sparse, with vein thicknesses generally less than 2cm. Pyrite is rare.

The northern zone returned an average of 7.10 gm/tonne Au (0.207 oz/ton) over a true width of 2.0m (6.6 ft), including 0.17m (0.6 ft) of 62.09 gm/tonne Au (1.811 oz/ton), at 2642E.

A bulk sample at 3556N, 2634E was taken to test the grade of gold mineralization encountered in trench SN88-4. Panel samples on either side returned values up to 22.63 gm/tonne Au (0.660 oz/ton), over a true width of 0.13m (0.4 ft), but no significant weighted averages over 2.0m (6.6 ft). The bulk sample returned a value of 15.60 gm/tonne Au (0.455 oz/ton) over an interval of 1.2m (3.9 ft) and averaged 2.06 gm/tonne Au (0.057 oz/ton) over a true width of 2.0m (6.6 ft).

In summary, quartz veining hosted by generally moderately sericitic granitic rocks was present along the strike length in the stripped area. Gold mineralization averages 2.81 gm/tonne Au (0.082 oz/ton) over 2.0m (6.6 ft) along a strike length of 45m (148 ft). There is excellent potential for an eastern continuation.

6.3.2. SOUTH SHOWING TRENCH RESULTS

The relative locations of the Siwash South trenches are shown on Plates 8 and 9, and significant sampling results are given in Table 5.

Trench SS89-1 (44m) was excavated to find the source of moderately anomalous gold soil geochemistry along the westward projection of a mineralized structure.

The main rock type exposed in the trench was weakly to moderately propylitized quartz monzonite with narrow zones of moderate argillic alteration. Weak to moderate iron $\pm$ manganese oxide staining is locally present. A breccia (previously called a diatreme breccia), measuring 3.5m wide and trending 070° (dip unknown), was exposed at 279N. The breccia is moderately argillized, especially in contact with the granitic rock, and contains about 15% each of granitic and volcanic clasts in a granitic-clay matrix. Sampling returned no significant values.

No significant quartz veining was intersected in the trench. Two values of 0.93 gm/tonne Au (0.027 oz/ton) were returned from samples of moderately propylitized granite at 299N and 274N.

Trench soils show an anomalous gold content, to 940 ppb, centered over the breccia, although no mineralization was encountered. The anomaly may be shifted south from the anomalous rock sample at 299N.

Trench SS89-2 (58m) was excavated to test the westward extent of mineralization encountered in trench SS87-4, coincident with a moderately anomalous soil geochemical result. The trench exposed weakly to moderately propylitic altered granite, with common weak iron ± manganese staining.

An 11m interval, from 302N to 291N, did not reach bedrock due to excessive overburden depth. This, however, correlates with the projection of the breccia intersected in trenches SS89-1 and SS89-3. A 0.5m band of strong argillic alteration, with abundant iron oxide staining, was exposed at 285N. No significant quartz veining was uncovered in the trench.

Basal trench soil sampling returned anomalous values to 560 ppb over the southern end of the trench. This anomaly may be displaced from the argillic altered band, or the unexposed interval.

Trench SS89-3 (61m) was excavated 60m west of trench SS87-4 to test the source of moderately anomalous soil geochemistry and the westward projection of the mineralized structure in trench SS87-4. The rock uncovered was granitic, with lesser andesite and breccia. The granites show generally moderate propylitic alteration. Patches and discrete bands up to 20cm wide of weak to strong argillic alteration, containing up to 5% pyrite and occasional quartz stringers, are relatively common, and strike from 060° to 100°.

A small band of phyllic alteration with one quartz stringer containing 5% pyrite and traces of chalcopyrite, galena, and molybdenite was intersected at 313N. An 8m andesite dyke, trending 075/70N (average), was exposed at 325N. The dyke is intensely argillized to a blue clay, with several pods (to 25 cm in diameter) of phlogopitic alteration. Bands of iron oxide staining are also common. No significant gold values were returned. A 2m breccia, consisting of about 20% rounded granitic and 10% rounded andesitic fragments in a granitic-clay matrix, was intersected at 306N. The breccia trends 070/85S. The interval was not sampled. From 300N to the end of the trench, bedrock was not reached due to excessive overburden depth.

Geological features in this trench and in SS87-4 indicate a NW-SE trending fault with a left-lateral slip. There is a coincident gully between the two trenches, extending to the north.

Basal trench soil sampling returned several anomalous values which appear to be displaced 5m south from mineralized features exposed in the trench. A moderate anomaly over the unexposed interval may reflect the breccia.

Trench SS89-4 (87m) was excavated 55m east of trench SS87-4 to test for continuity and grade of mineralization intersected in trenches SS87-4 and SS87-3. The trench is underlain by granitic rocks, cut by a breccia and an andesite dyke. Most of the granitic rocks show moderate propylitic alteration with several bands of argillic alteration. Some phyllic alteration, associated with quartz veining, also occurs. A 2m ferri-manganocrete cap was exposed at 330N.

At 324N a 2.5m breccia, trending 070° (dip unknown), was exposed. The breccia consists of 10% rounded andesite fragments and 10% rounded granitic fragments in a granitic-clay matrix. The breccia and the surrounding granite are moderately propylitized and weakly argillized.

From 321N to 308N, propylitized granitic rock hosts six narrow (0.5cm to 2cm), widely spaced quartz veins with argillic and phyllic envelopes. The veins commonly contain up to 5% pyrite.

Three andesite dykes, ranging from 1m to 5m thick, were intersected between 296N and 284N. The dykes, trending about 090/90, show varied alteration, grading from propylitic to phlogopitic, with rare intense argillic. No veining was noted, and no significant results were returned from sampling.

Anomalous basal trench soil values, to 370 ppb, were returned from the area overlying the andesite dykes, but have probably been displaced from mineralization encountered to the north.

Trench SS89-5 (54.3m) was excavated 55m west of trench SS87-3. Most of the rock exposed was granite with weak to moderate argillic alteration. A breccia, similar in character to that exposed in SS89-4, 4.5m thick and striking 065°, was intersected at 346N. Two 1cm quartz stringers, at 341N and 338N, were noted. A few ferri-manganocrete caps were exposed. No significant gold values were returned from sampling.

Weakly anomalous basal trench soils, to 134 ppb, do not seem to be related to any feature noted in the trench.

Trench SS89-6 (80m) was located 60m east of trench SS87-3. Most of the rock exposed was granite with generally moderate propylitic to argillic alteration, and rare weak silicification. A breccia, as described in trench SS89-4, trending 060° (dip unknown) and about 2m thick, was intersected at 386N. Sampling returned no significant gold values. Bedrock was not reached in an interval from 351N to 347N due to deep overburden. A 1.2m andesite dyke, trending 075°, was intersected at 346N. No quartz veining was noted, and no significant gold values were returned from sampling of this trench.

Basal trench soils are anomalous for the entire length of the trench, including one value of 2710 ppb (0.079 oz/ton). A source for the values was not found in this trench.

Trench SS89-7 was excavated to test the eastward extent of gold mineralization intercepted in trench SS87-2. The area exposed measured 34m long with an average width of 6m.

Granitic rocks cut by altered andesite dykes and a breccia trending about 060° were exposed. The breccia consists of an argillic altered granitic matrix containing rounded fragments of granitics (20%) and andesitic volcanics (5%). Quartz vein hosted mineralization roughly follows the north contact of the breccia. Dips in the area tend to be steep, and vary from north-dipping to south-dipping.

Alteration in the granitic rocks varies from propylitic to phyllic, with local silicification. Intense shearing is evidenced by displacements and bands of blue to white clay trending 040°, 060°, and 090° which have cut and distorted an andesite dyke. A second andesite dyke in the southeast corner is unaffected by shearing.

Numerous quartz veins and stringers, ranging from 0.5cm to 3cm thick, are concentrated on the north side of the breccia, paralleling it at 060° to 065°. Veins locally form the contact between the granite and the breccia. The veins contain up to 10% pyrite, with varying amounts (usually less than 1%) of chalcopyrite, sphalerite, and galena. A small sericitic altered granite block, near the western edge of the area, contains about 10% disseminated sphalerite with minor galena and chalcopyrite. Ten strings of panel samples, spaced an average of 3m apart, tested the entirety of the mineralization encountered. Highest assays were associated with the veining and/or the breccia.

In summary, quartz vein hosted gold mineralization was exposed in the stripped area, paralleling a breccia with trend about 060°. The mineralization grades an average of 3.36 gm/tonne Au (0.098 oz/ton) over a true width of 2.0m (6.6 ft) along a strike length of 34.0m (115 ft).

Trench SS89-8 (52m) was excavated 60m east of trench SS87-2 to trace the eastward extent of the mineralized structure, and to determine the source of anomalous soil samples. The trench exposed mostly granitic rock, fresh to weakly argillized with weak to moderate iron $\pm$ manganese oxide staining.

A single quartz vein, 1cm thick, was mapped at 429N, and returned a value of 1.51 gm/tonne Au (0.044 oz/ton) over a true width of 0.87m (2.8 ft). An andesite dyke, 6m thick, was exposed at 445N, with a trend of 095/75S. The dyke included a 3m thick breccia (20% rounded andesite fragments in a granitic matrix) at 444N. Weakly argillized andesite at 437N returned a value of 1.10 gm/tonne Au (0.032 oz/ton), and the adjacent sample, of weakly argillized granite, a value of 1.03 gm/tonne (0.030 oz/ton), both over true widths of 0.97m (3.2 ft).

Basal trench soils returned moderately anomalous results (to 820 ppb) which appear to be displaced from a source at the andesite-granite contact.

Trench SS89-9 (50m), located 60m east of trench SS89-8 to test for a mineralized structure, was underlain primarily by fresh to weakly argillized granitic rocks.

An andesite dyke, 1.2m thick and trending 065°, was exposed at 459N. A 2.5m breccia, as per trench SS89-8, trending 070°, was intersected at about 447N, and a second andesite dyke, trending 090°, at 443N. The andesites show a weak alteration to phlogopite mica.

No significant gold values were intersected in this trench, and basal soil samples were not collected.

6.3.3 SIWASH LAKE AREA (Plate 10)

Trench SL89-1 (119.3m) tested two anomalous soil geochemical stations (250 and 650 ppb Au) located on either side of the trench. Excavation exposed fresh to weakly propylitized granitic rocks.

A four meter wide, strongly argillized zone occurs centered around a one metre, east-west trending andesite dyke at 2467N. A sample of dyke material (SL89-4P), including a pyrite rich, metallic grey clay, returned an assay of 12.69 gm/tonne Au (0.370 oz/ton) over 0.86m (2.8 ft) true width.

Twenty-four trench soils were taken at the bedrock/overburden interface at 5 metre intervals along the trench wall. Nearly all of these returned anomalous results up to 1440 ppb Au. Strongly anomalous results coincide with the four metre wide alteration zone and two other minor alteration zones that were not sampled.

Trench SL89-2 (74.2m) was dug to test two geochemical anomalies (84 and 82 ppb Au) immediately east of the trench location. The trench exposed weakly fractured, fresh to slightly propylitized granitic rocks. Narrow zones of strong fracturing and/or argillic alteration were sampled returning a single significant result of 3.05 gm/tonne Au (0.089 oz/ton) over 0.5m located at 2618N. A 1cm thick quartz vein trending 065/57S in phyllic altered granite was mapped at the north end of the trench. A 0.5m panel sample across the vein returned a value of 0.617 gm/tonne Au (0.018 oz/ton).

Trench soils taken along the trench wall at 5m intervals produced anomalous values up to 360 ppb Au. The anomalous soil zone is displaced about 10m south of possibly associated mineralized features.

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7.0 DIAMOND DRILLING

7.1 INTRODUCTION

A twelve hole diamond drill program was undertaken on the Elk 20 and 21 claims in the Siwash North area between October 11 and November 1, 1989. A total of 752 metres were drilled in four fences approximately 150m apart to test the mineralized quartz vein structure to 200m down-dip. Leclerc Diamond Drilling Ltd, of Beaverdell, B.C., performed the drilling using a skid-mounted Longyear 38 drill, obtaining an average recovery of 96.4% for HQ core and 97.1% for NQ, at an average drill rate of 3.6 metres per hour.

The objective of the 1989 program was to determine the presence of the mineralized structure at depth, to establish the best core size to maximize recovery, and to determine drilling costs and production rates in preparation for a larger program in 1990. The targeted zone was intersected in all drill holes. It varied in character and thickness from a sulphide bearing quartz vein 30cm thick to a group of two to five cm veins hosted in phyllic-argillic altered granite. Results from assaying included 27.26 gm/tonne Au (0.795 oz/ton) over a true thickness of 2.0m (6.6 ft).

7.2 DRILLING OPERATIONS

Drill sites were located south of the mineralized exposures in four fences to test the down-dip continuity and character of the quartz-vein-hosted mineralization located on surface. Drill sites were cleared by K-Way Contracting and the logs were transported to the Weyerhaeuser Mill in Merritt. The sites were levelled using a Caterpillar D8 bulldozer and 215 LC excavator. Water was pumped to the drill site from an east flowing creek located at approximately 3000N and all used drill fluids were contained in sumps dug at each site. The drill was moved between sites by a Caterpillar D5 bulldozer. A total of 526 metres were drilled in nine HQ size holes and 226 metres of NQ size in the last three holes. The core was washed, footage blocks were converted to metres and recoveries were calculated. The geology and sample intervals were recorded on drill logs and the quartz vein zones were photographed. Samples consisting of the entire core were taken from quartz veins and all other samples were split in half using a Longyear core splitter.

Samples were shipped to Acme Analytical Laboratories in Vancouver and assayed for gold. All samples with values greater than 2.57 gm/tonne Au (0.075 oz/t) were reassayed from a new cut of reject and the results averaged. Acid tests were taken to measure the variation in dip of the angled holes. The hole dips flattened an average of 0.062 degrees per metre. Greater deviation was noted in the holes which intersected numerous geological contacts. On completion of a hole, casing was removed (except hole SND89-7) and a labelled squared log was inserted to mark the location. Survey control points were established across the drill grid by T. Ferguson and Associates Ltd. and the locations of all the drill hole collars were surveyed relative to these points by compass and steel chain. Drill hole locations, dips, depths, etc., are summarized in Table 6.

7.3 DIAMOND DRILLING RESULTS

Summary logs of the drill holes are in Appendix "E", drill hole locations are shown on Figure 7, the geology and sample locations are plotted on Plates 11 to 14, and significant assay results are shown in Table 7.

DDH SND89-1 was located in trench SN89-4 to test the grade and continuity of gold mineralization encountered at surface. The hole intersected granodiorite and quartz monzonite, with 4.16m (13.6 ft) of andesitic volcanic at the bottom. Alteration graded from weak propylitic to strong phyllic. Two zones of mineralization were intersected.

A 1.76m (5.81 ft) zone of moderate to strong phyllic alteration was encountered at 29.12m (95.5 ft) down-hole containing two quartz veins, one 25cm thick and the other 5cm, at 70 degrees to the core axis. The thicker vein contained mainly pyrite, with lesser amounts of chalcopyrite and tetrahedrite. Some visible gold was also noted.

A second zone of moderate to strong phyllic alteration, measuring about 0.95m (3.1 ft) thick, was intersected at 58.44m (191.7 ft) down-hole. Two quartz veins, containing pyrite and traces of chalcopyrite and tetrahedrite, were noted. Both zones correlate well with projections from surface.

Below the phyllic altered zone, at 64.90m (212.9 ft), andesites, presumably of the Nicola group, were intersected.

DDH SND89-2 was drilled at the same collar as hole SND89-1, with dip -90°, to further test the down-dip extension of mineralization in trench SN89-4 and hole SND89-1. The hole intersected granitic rocks, primarily quartz monzonite and granodiorite. Alteration was mainly weak to moderate propylitic, with local phyllic or argillic bands.

A 0.73m (2.4 ft) thick zone of phyllic alteration was intersected at 27.54m (90.4 ft),and included a 5cm quartz vein. The vein contained pyrite, with traces of chalcopyrite, bornite, and tetrahedrite. This zone correlates with the upper zone in hole SND89-1.

Numerous narrow zones of weak to moderate phyllic alteration, including thin quartz stringers, were also intersected but returned no significant assays.

CORDILLERAN ENGINEERING LTD.

TABLE 6

DRILL SUMMARY RECORD

PROPERTY: ELK - 1989

HOLE No.	NORTHING	EASTING	ELEV'N	SECTION	INCLINATION	AZIMUTH	O'BURDEN	CLAIM	% REC'Y	DATE START	DATE FINISH	REMARKS	HOLE DEPTH	TOTAL
SND89-1	3379.13	2140.63	1658.17	2150E	- 45	0	1.22m	ELK 21	95.7	OCT 11	OCT 13	HQ	70.41m	70.41m
SND89-2	3378.13	2140.63	1658.17	2150E	- 90	0	1.22	ELK 21	95.2	OCT 13	OCT 14	HQ	34.90	105.31
SND89-3	3330.85	2139.18	1658.23	2150E	- 90	0	1.22	ELK 21	98.9	OCT 14	OCT 15	HQ	61.57	166.88
SND89-4	3346.25	1982.45	1653.70	1990E	- 45	0	3.66	ELK 20	98.2	OCT 15	OCT 17	HQ	44.50	211.38
SND89-5	3310.06	1981.18	1655.47	1990E	- 67	0	3.05	ELK 20	96.1	OCT 17	OCT 20	HQ	80.77	292.15
SND89-6	3506.83	2640.79	1644.16	2650E	- 51	0	2.44	ELK 21	93.2	OCT 20	OCT 21	HQ	62.79	354.94
SND89-7	3450.97	2644.20	1649.07	2650E	- 67	0	0.30	ELK 21	97.5	OCT 21	OCT 24	HQ	87.17	442.11
SND89-8	3393.10	2403.24	1629.72	2400E	- 45	0	0.30	ELK 21	94.9	OCT 24	OCT 25	HQ	38.40	480.51
SND89-9	3391.44	2403.27	1629.79	2400E	- 90	0	3.35	ELK 21	96.8	OCT 25	OCT 26	HQ	46.02	526.53
SND89-10	3348.47	2405.86	1630.60	2400E	- 90	0	3.35	ELK 21	91.9	OCT 26	OCT 28	NQ	50.60	577.13
SND89-11	3278.69	2137.27	1665,19	2150E	- 90	0	3.05	ELK 21	98.2	OCT 29	OCT 30	NQ	74.98	652.11
SND89-12	3223.11	2137.28	1660.17	2150E	- 90	0	2.75	ELK 21	98.0	OCT 30	NOV 1	NQ	100.28	752.39
										ALL INFORMATION METRIC				

Table 7: SIGNIFICANT DRILL CORE ANALYTICAL RESULTS

DDH No.	Sample #	Depth m	Depth ft	Assay results, Au gm/tonne	Assay results, Au oz/ton	True width m	True width ft	Weighted results, Au gm/tonne	Weighted results, Au oz/ton	True width m	True width ft	Material Sampled
SND89-1	3	30.09	98.7	189.70	5.533	0.26	0.8	) 26.02	0.759	2.0	6.6	25cm vn, py, minor cpy, tt
	4	30.38	99.7	6.72	0.196	0.44	1.4	)				5cm vn
	9	58.44	191.7	18.31	0.534	0.82	2.7	7.54	0.220	2.0	6.6	2 qtz vns, py, minor cpy, tt
SND89-2	3	27.54	90.4	27.67	0.807	0.73	2.4	10.18	0.297	2.0	6.6	5cm vn, py, trace cpy, bn, tt
SND89-3	2	38.46	126.2	2.09	0.061	0.61	2.0					15cm vn, 25% py, trace cpy
	9	44.65	146.5	2.47	0.072	0.75	2.5					Qtz vns to 1cm
SND89-4	3	35.16	115.4	9.19	0.268	0.92	3.0	5.38	0.157	2.0	6.6	2x5cm vns, 10 py, minor cpy, tt
SND89-6	4	24.51	80.4	9.15	0.267	0.39	1.3					Qtz vns
	13	30.30	99.4	15.50	0.452	0.34	1.1					" "
	23	35.33	115.9	15.60	0.455	0.26	0.8					5cm vn with VG, py, cpy
	28	39.93	131.0	21.29	0.621	0.26	0.8					Qtz vns
SND89-7	23	56.35	184.9	77.35	2.256	0.41	1.3	16.04	0.468	2.0	6.6	Sericite alteration
	38	72.98	239.4	5.90	0.172	0.50	1.6					" "
	43	76.50	251.0	7.30	0.213	0.37	1.2					" "
SND89-8	16	22.60	74.1	40.25	1.174	0.53	1.7	10.63	0.310	2.0	6.6	Sheared vn, 10% py, trace cpy, tt
SND89-9	12	16.20	53.1	7.34	0.214	0.39	1.3					Qtz vn
	21	23.30	76.4	11.90	0.347	0.31	1.0	) 3.22	0.094	2.0	6.6	Phyllic alteration
	23	24.50	80.4	6.17	0.180	0.44	1.4	)				" "
SND89-10	11	33.77	110.8	2.54	0.074	0.26	0.8					Qtz vn, 2% py, trace gn
SND89-11		40.71	133.6	2.43	0.071	0.28	0.9					2cm vn
SND89-12	8	83.88	275.2	7.44	0.217	0.39	1.3					Qtz vn, 20% py, 5% sph, 1%tt

Abbreviation codes:

vn - vein
py - pyrite
cpy - chalcopyrite
tt - tetrahedrite
bn - bornite
Qtz - quartz
gn - galena
sph - sphalerite
VG - visible gold

DDH SND89-3 was collared 47m (154 ft) south of DDH's SND89-1 and 2. This hole also intersected only granitic rock, primarily quartz monzonite. Alteration was mainly moderate propylitic with bands of moderate sericitic or phyllic.

A 0.99m (3.2 ft) band of moderate phyllic alteration was intersected at 38.46m (126.2 ft). This included a 15cm quartz vein containing 15% pyrite and traces of chalcopyrite. This zone correlates with the zone in hole SND89-2, with slight flattening of dip. A second zone of moderate phyllic alteration, 2.58m (8.46 ft) thick, was encountered at 44.65m (146.5 ft). Quartz veining was very minor, with maximum thicknesses of 1cm.

While no highly significant values were returned, drilling showed that the structure, and thus the potential for deeper mineralization, exists at depth.

DDH SND89-4 was drilled to test the extension at depth of mineralization encountered in trench SN89-1. The hole intersected a complex mixture of granitic rocks (mainly granite and quartz monzonite) and andesitic volcanics (about 50% of the hole). Alteration included weak to moderate propylitic, with bands of moderate sericitic.

At 35.16m (115.4 ft), a 2.52m (8.3 ft) band of moderate sericitic alteration was encountered, including several 2cm to 5cm quartz veins and an interval of silicified andesite. The veins contained up to 10% pyrite, with minor chalcopyrite and tetrahedrite, and were predominantly hosted by granitic rock. This zone correlates well with the projection of mineralization encountered at surface.

DDH SND89-5 was drilled 36m (118 ft) south of DDH SND89-4. A highly complicated suite of intrusive rocks (granite, granodiorite, quartz monzonite, and aplite) and volcanic rocks, with complex contact relations, was seen in core. Alteration in the hole tended to be weak to moderate propylitic, with one band of moderate phyllic alteration in the andesite. Quartz veining was very minor, with no significant assays returned. The main alteration zone in the hole correlates with that intersected in hole SND89-4.

The structure is continuous, and may be mineralized down-dip where it intersects the batholith.

DDH SND89-6 was drilled to test grade and continuity of gold mineralization encountered in trenches SN88-4 and SN89-14 (stripped area "D"). The hole returned granitic rocks (granite and quartz monzonite) with a narrow shear-bounded wedge of andesite dyke(?). Alteration was mainly moderately propylitic, with some moderate sericitic and K-spar stable phyllic bands.

A section of sericitic alteration, with some K-spar stable phyllic bands, occurred in a broad, diffuse zone with propylitic alteration over 10.14m (33.3 ft) beginning at 22.44m (73.6 ft). It contained numerous narrow quartz veins. One vein, about 5cm thick at 35.33m (115.9 ft), contained some visible gold in addition to pyrite and chalcopyrite. Averages over 2.0m (6.6 ft) true width are all less than 3.25 gm/tonne Au (0.100 oz/ton), but include 2.85 gm/tonne Au (0.083 oz/ton) at 38.37m (125.9 ft). The zone correlates well with the projection from surface.

DDH SND89-7 was drilled 56m (184 ft) south of hole SND89-6. The hole intersected granitic rocks as per DDH SND89-6, with a 1.0m (3.3 ft) andesite dyke at 76.30m (250.3 ft). Alteration was mainly moderate to strong propylitic with lesser moderate sericitic alteration bands.

One zone of sericitic alteration at 54.50m (178.8 ft) continued for 7.0m (23.0 ft). It appeared very diffuse, constituting 25% of a strongly propylitized zone. A second zone, 7.3m (24.0 ft) thick, was intersected at 72.15m (236.7 ft), and included the andesite dyke. The zone consisted of numerous bands of moderate sericitic alteration with some quartz veining, and about 30% strong to intense propylitic alteration bands. Both zones correlated well with the one intersected in hole SND89-6, with slight flattening of dip.

DDH SND89-8 was located at the southern end of trench SN89-7 to test the down-dip grade and continuity of gold mineralization exposed at surface. Granodiorite and quartz monzonite were intersected. Alteration was diffuse, including moderate K-spar stable phyllic, sericitic, and propylitic.

No single, discrete zone was identified. One interval, from 14.42m (47.3 ft) to 28.15m (92.4 ft), consisted of moderate propylitic alteration with about 20% bands of moderate K-spar stable phyllic alteration. A few narrow quartz veins were included. One sheared vein, at 22.60m (74.1 ft), contained 10% pyrite and traces of chalcopyrite and tetrahedrite.

DDH SND89-9 was drilled vertically at the same collar as DDH SND89-8. The core was composed of granodiorite and quartz monzonite, with alteration varying from moderate minor propylitic to moderate or strong phyllic.

One quartz vein, at 16.20m (53.1 ft), was hosted by moderately sericitized granite. A zone of strong phyllic and moderate argillic alteration from 22.90m to 25.00m (75.1 ft to 82.0 ft), hosted a few quartz veins. The lower mineralized zone is correlated with the mineralization in hole SND89-8, with a minor flattening of dip.

DDH SND89-10 was drilled 43m (141 ft) south of hole SND89-9. The hole intersected granodiorite and quartz monzonite, with a 8.50m (27.9 ft) andesite dyke(?) at 15.07m (49.4 ft). Alteration was primarily moderate to strong propylitic with some potassic(?) and sericitic.

A zone of moderate sericitic alteration, with rare phyllic bands, was encountered from 26.45m (86.8 ft) to 34.36m (112.7 ft). Quartz veining was rare.

The alteration intersected in this hole correlates with that intersected in holes SND89-8 and 9.

DDH SND89-11 was drilled at -90°, 52m (171 ft) south of hole SND89-3, to test the grade and continuity of gold mineralization encountered in holes SND89-1, 2 and 3. Quartz monzonite and granodiorite were returned. Alteration was mostly weak to moderate propylitic, with a few bands of moderate sericitic to phyllic.

No discrete zone of alteration was defined. Broadly, an interval from about 40m to 50m (131.2 ft to 164.0 ft) hosted the strongest alteration and the most quartz veining. This broad interval can be correlated with the zone in hole SND89-3, with the dip almost flat.

DDH SND89-12 was drilled 55.5m (182 ft) south of hole SND89-11. The hole contained quartz monzonite and granodiorite, with moderate to locally strong propylitic and some moderate sericitic alteration.

A zone of sericitic alteration, with occasional moderate phyllic bands and several quartz veins, was intersected from 80.15m (263.0 ft) to 88.65m (290.8 ft). One vein, at 83.88m, contained 20% pyrite, 5% sphalerite and up to 1% tetrahedrite. A second vein, with 5% pyrite, 10% pyrrhotite and traces of sphalerite and tetrahedrite, returned no significant assay. This zone is correlated with that in hole SND89-11, with an indication of increasing dip. It remains open at depth.

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8.0 GEOPHYSICS

Ground magnetometer and VLF-EM surveys were carried out on the Elk 1, 2 20, and 21 claims between the 14th and 29th of June, 1989 by SJV Consultants Ltd. Readings were taken at 12.5 metre intervals on cut or flagged lines 100 metres apart for a total of 50 km. The survey covered the Siwash North and Siwash Lake areas between grid coordinates 1000N and 3850N, 1400E and 3000E. The purpose was to define conductors coincident with anomalous gold soil geochemical stations.

Numerous east and northeast trending VLF-EM conductor axes were defined, some coincident with magnetic contacts. A weak VLF-EM conductor closely parallels a magnetic contact and the main mineralized structure in the Siwash North area. The mineralized alteration feature exposed in Siwash Lake area trench SL89-1 coincides with a weak east-west trending VLF-EM anomaly at approximately 2600N, 2500E. A strong VLF-EM conductor trending northeast between 1600N and 2000N follows a recessive feature visible on air photos which originates at the North Showing quartz vein. Coincident gold soil geochemical anomalies occur with the above geophysical features.

The VLF-EM conductors appear to reflect argillic alteration zones located along shears, geological contacts and dykes. Gold mineralization has been found associated with shears and andesite dykes. The magnetic conductors may be responses to sulphides associated with shears or alteration features. In light of the above, coincident VLF-EM, magnetometer and geochemical anomalies provide interesting trench targets.

The geophysical report by SJV Consultants Ltd. can be found in Appendix "F".

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9.0 ROAD CONSTRUCTION

The road system connecting the Siwash North area, South Showing area and the Okanagan Connector highway was upgraded between September 11 and October 11, 1989. A total of 9.5km of road was improved on the Elk 2 and 21 claims by Wiltech Developments of Kelowna, B.C. The work included widening the road surface to 6 metres, ditching, filling muddy or low lying sections, rerouting around steep hills or sharp corners and grading. Culverts were installed at drainage crossings and a gate was constructed at the entry to the Siwash North area to prevent access by unauthorized personnel. Equipment used included Caterpillar D8K bulldozer, 215 LC excavator, 980A loader, 627 scraper, 14G grader and a five ton dump truck.

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10.0 LOGGING

(Plate 2)

Logging was carried out in the Siwash North and Siwash Lake areas on the Elk 2, 20 and 21 claims in preparation for trenching, stripping, drilling and road construction. The work was done in two phases by Kelby Contracting and K-Way Contracting, both from Merritt, B.C.

The first phase, done by Kelby Contracting, removed trees from Siwash North trench sites SN89-1 to SN89-12 and from Siwash Lake trench sites SL89-1 to SL89-6. This work was carried out under a licence to cut granted to Kelby Contracting. Logging commenced on July 5, 1989 and was completed on July 14, with 902 cubic metres of wood being removed.

K-Way Contracting performed the second phase of the work which included clearing for road and trench widening in the Siwash Lake area and, in the Siwash North area, a strip approximately 110m wide and 900m long was cleared in preparation for diamond drilling and trenching of the mineralized structure. This work was carried out, under a licence to cut issued to Fairfield Minerals Ltd., between September 2 and December 6, 1989. A total of 2244 tonnes of wood in 57 truck loads was shipped to the Weyerhaeuser mill in Merritt.

Logs were felled, decked, trimmed of all branches and cut to lengths specified by the mill. The logs were then sorted and transported to Merritt via the Phase III right of way of the Okanagan connector. Slash piles made during the first phase of logging were burned on October 29 and 30, 1989.

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11.0 REFERENCES

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12.0 STATEMENT OF COSTS

SALARIES (Field)			
K.Bacon, Fld Assist.	36 days x $80/d x 1.12*	$ 3,225	
L.Bradbury, Fld. Assist.	41 days x 80/d x 1.12	3,674	
M.Brinkerink, Cook	35 days x 108/d x 1.12	4,234	
B.Brown, Cook	60 days x 108/d x 1.12	7,258	
P.Conroy, Geologist	110 days x 108/d x 1.12	13,306	
J.Cormier, Geologist	65 days x 100/d x 1.12	7,280	
S.Crawford, Fld. Assist.	58 days x 72/d x 1.12	4,677	
C.Knight, Cook	29 days x 130/d x 1.12	4,222	
A.Mitchell, Fld. Assist.	19 days x 72/d x 1.12	1,532	
D.Morrison, Fld. Assist.	43 days x 72/d x 1.12	3,468	
S.Riley, Jr. Geologist	52 days x 84/d x 1.12	4,892	
K.Smedley, Bullcook	29 days x 80/d x 1.12	2,598	
C.Snellgrove, Fld Assist.	23 days x 80/d x 1.12	2,061	
M.Steiner, Fld. Assist.	78 days x 84/d x 1.12	7,338	
J.Tindle, Cook	12 days x 130/d x 1.12	1,747	
C.Warburton, Cook	16 days x 130/d x 1.12	2,330	
C.Young, Fld. Assist,	49 days x 72/d x 1.12	3,951	$ 77,793
*Benefits factor			
TRANSPORTATION	Truck Rental	12,930	
	Fuel	2,938	15,868
CAMP SUPPORT	Groceries	22,356	
	Camp equipment rental	19,040	
	Radio telephone	2,726	
	Personnel travel	4,004	
	Hardware, field gear	13,312	61,438
LINECUTTING	20.7 Km		11,795
TRENCHING			
Caterpillar 215 LC Excavator and operator	488 hrs x $82.50/hr	40,260	
Caterpillar D8K Bulldozer and Operator	49 hrs x 120.00/hr	5,880	46,140

DIAMOND DRILLING

Drilling: 526.5 m HQ, 225.9 m NQ @ hourly rates		39,147	
Drill Site Construction:			
Caterpillar D8H	17 hrs @ $120/hr	2,040	
Caterpillar 215LC	20 hrs x 82.50/hr	1,650	
Coreshack, Corerack Construction		10,332	53,169

GEOCHEMICAL ANALYSIS

383 Trench Soil Samples	MIBK Au	@ $5.35	2,049	
453 Trench Rock Samples	FA/AA Au	@ 9.50	4,303	
392 Trench Rock Samples	FA 1AT Au	@ 12.00	4,704	
90 Trench Rock Samples	FA Native Gold Sep..	@ 36.00	3,240	
737 Grid Soil Samples	MIBK Au	@ 5.35	3,943	
15 Drill Core Samples	30 element ICP	@ 9.25	139	
165 Drill Core Samples	FA 1AT Au	@ 12.00	1,980	
148 Drill Core Samples	FA Native Gold Sep..	@ 36.00	5,328	25,686

ROAD CONSTRUCTION:

Caterpillar 215LC Excavator	223 hrs x $82.50/hr	$18,398	
Caterpillar D8K Bulldozer	67.5 hr x 120.00/hr	8,100	
Caterpillar 980A Loader	47 hrs x 100.00/hr	4,700	
Caterpillar 627 Scraper	66 hrs x 127.50/hr	8,415	
Caterpillar 14G Grader	49.5 hr x 90.00/hr	4,455	
Mobilization/Demobilization		1,800	
Gate Construction		930	46,798

GEOPHYSICS

Magnetometer VLF-EM Survey	17 man days	10,810

LIABILITY AND ACCIDENT INSURANCE	1,232
FREIGHT, EXPRESS, DELIVERY	4,719
OFFICE SUPPLIES, PRINTING, PHOTOGRAPHY	4,476
DRAFTING, COMPUTER PLOTTING	6,822
MAPS, PUBLICATIONS, AIRPHOTOS	1,162
TELEPHONE, POSTAGE	5,150
TOTAL EXPENDITURES	**$373,058**

W. Johnson

****

13.0 LIST OF PERSONNEL AND CONTRACTORS

PERSONNEL:

Name/address	Position	Field Dates Worked
B. Bacon Kamloops, BC	Field Assistant	Sep 12 - Oct 16, 1989
L. Bradbury Westbank, BC	Field Assistant	Sep 6 - Oct 16, 1989
B. Brown Vancouver, BC	Cook	May 25 - Aug 10, 1989
M. Brinkerink Vancouver, BC	Cook	Aug 2 - Sep 27, 1989
P. Conroy Burnaby, BC	Geologist	Jun 7 - Nov 4, 1989
J.Cormier Vancouver, BC	Geologist	Aug 25 - Nov 5, 1989
S. Crawford N. Vancouver, BC	Field Assistant	Aug 25 - Nov 5, 1989
W. Jakubowski Vancouver, BC	Geologist/Supervisor	Jun 20 - Nov 5, 1989
C. Knight Summerland, BC	Cook	Sep 27 - Oct 24, 1989
A. Mitchell Vancouver, BC	Field Assistant	May 25 - Jul 14, 1989
D. Morrison Vancouver, BC	Field Assistant	May 26 - Aug 24, 1989
S. Riley Vancouver, BC	Jr. Geologist	May 26 - Sept 1, 1989
J. Rowe N. Vancouver, BC	Geologist/Supvervisor	Jun 3 - Jun 25, 1989
K. Smedley Armstrong, BC	Bullcook	Sep 27 - Oct 24, 1989

Personnel Continued

Name/address	Position	Field Dates Worked
C. Snellgrove N. Vancouver, BC	Field Assistant	Oct 5 - Oct 30, 1989
M. Stammers N. Vancouver, BC	Geologist/Supervisor	May 25 - Jun 13, 1989
M. Steiner Coquitlam, BC	Field Assistant	Jun 3 - Nov 5, 1989
J. Tindle Whister, BC	Cook	Oct 24 - Nov 4, 1989
C. Warburton Vancouver, BC	Cook	Aug 9 - Aug 24, 1989
C. Young Vancouver, BC	Field Assistant	Jun 20 - Sep 1, 1989

CONTRACTORS:

Jerry Bradbury Westbank, BC	Carpenter/Welder	1 man: May 27-May 29, 1989
Gordon Clark & Associates Ltd. Whitehorse, YT	Linecutting	5 men: May 28-Jul 1, 1989
SJV Consultants Delta, BC	Geophysics	1 man: Jun 13-Jun 30, 1989
W. Dobbin Construction Ltd. Kelowna, BC	Excavator Trenching Road Construction	5 men: Jul 24-Oct 26, 1989
G.Patterson Peachland, BC	Carpenter	1 man: Oct 1-Oct 25, 1989
T.Ferguson & Associates Ltd. Kelowna, BC	Surveying	2 men: Oct 18-Oct 19, 1989
Kelby Contracting Merritt, BC	Logging	6 men: Jul 6-Jul 11, 1989
K-Way Contracting Merritt, BC	Logging	4 men: Sep 1-Dec 6, 1989
Leclerc Drilling Ltd. Beaverdell, BC	Diamond Drilling	2 men: Oct 10-Nov 1, 1989

****

14.0 WRITER'S CERTIFICATE

I, Wojtek Jakubowski of Vancouver, British Columbia, hereby certify that:

1. I am a geologist residing at #17 1435 West 10th Avenue and employed by Cordilleran Engineering Ltd. of 1980 - 1055 West Hastings Street, Vancouver, B.C.

2. I received a B.Sc. degree in Geological Sciences from McGill University, Montreal, Quebec in 1979.

3. I have practiced my profession for 10 years in Quebec, Northwest Territories, Yukon Territory and British Columbia.

4. I am the author of this report and the supervisor of the field work conducted on the Elk North area claim group by Cordilleran Engineering Ltd. during the period June 1 to November 5, 1989.

CORDILLERAN ENGINEERING LTD.

Wojtek Jakubowski, B.Sc.
Geologist

WJ/z
March, 1990
Vancouver, B.C.

W R I T E R ' S C E R T I F I C A T E

I, John Cormier of Vancouver, British Columbia, hereby certify that:

1. I am a geologist residing at 5685 Ontario Street and employed by Cordilleran Engineering Ltd. of 1980 - 1055 West Hastings Street, Vancouver, B.C.

2. I received a B.Sc. degree in Geological Sciences from St. Francis Xavier University, Antigonish, Nova Scotia in 1985.

3. I have practiced my profession for 6 years in Ontario, New Brunswick, Nova Scotia and British Columbia.

4. I am a co-author of this report and was a member of the field crew on the Elk property during the period August 21 to October 30, 1989.

CORDILLERAN ENGINEERING LTD.

W. Johnson for JC

John Cormier, B.Sc.
Geologist

W R I T E R ' S C E R T I F I C A T E

I, Paul Conroy of Vancouver, British Columbia, hereby certify that:

1. I am a geologist residing at 3587 East 45th Avenue and employed by Cordilleran Engineering Ltd. of 1980 - 1055 West Hastings Street, Vancouver, B.C.

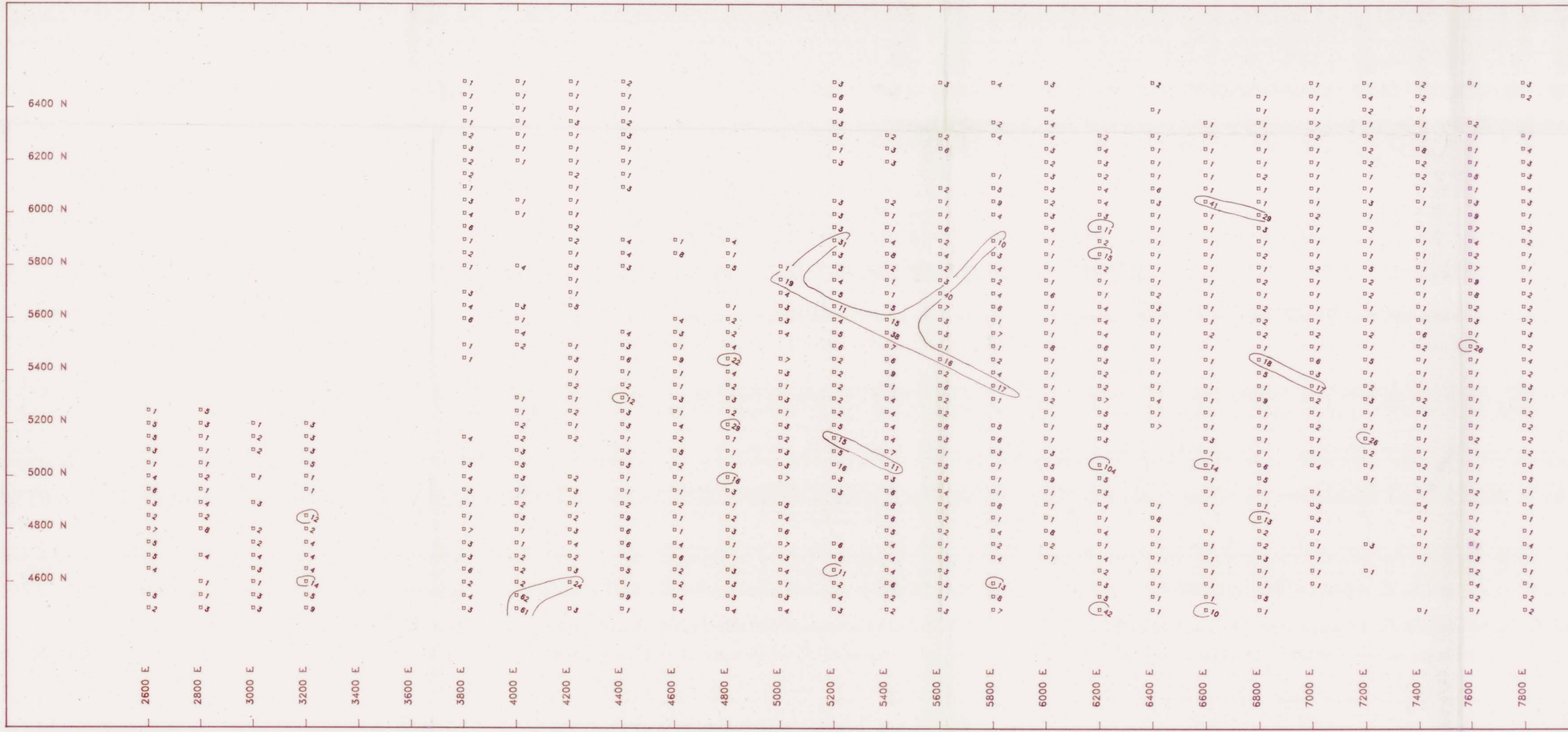
2. I received a B.Sc. degree in Geological Sciences from the University of British Columbia, Vancouver in 1982.

3. I have practiced my profession for 9 years in Northwest Territories, Yukon Territory and British Columbia.

4. I am a co-author of this report and was a member of the field crew on the Elk property during the period June 7 to November 4, 1989.

CORDILLERAN ENGINEERING LTD.

Paul Conroy, B.Sc.
Geologist



GEOLOGICAL BRANCH
ASSESSMENT REPORT

19,835

AU PPB

Contoured at 10 ppb

FAIRFIELD MINERALS LTD.

ELK PROPERTY

BOULDER LAKE AREA

AU SOIL GEOCHEM

SIMILKAMEEN MINING DIVISION
NTS 92H16W

1: 10000

CORDILLERAN ENGINEERING LTD.
1980 1055 WEST HASTINGS ST.
VANCOUVER, B.C.
V6E 2E9

MAR. 1990

PLATE 1

1900 E 2000 E 2100 E 2200 E 2300 E 2400 E 2500 E 2600 E 2700 E 2800 E

3800 N 3700 N 3600 N 3500 N 3400 N 3300 N 3200 N 3100 N 3000 N

SN89-9 SN89-8 SN88-4 SN89-11 SN89-10 SN88-6 SN89-7 SN88-1 SN88-2 SN89-4 SN88-3 SN89-5 SN89-6 SN89-3 SN89-2 SN89-1 SN88-5

MAP AREA "A"

MAP AREA "B"

MAP AREA "C"

MAP AREA "D"

VOLCANICS

GRANITICS

CORE RACK

CORE SHACK

LEGEND

OVERBURDEN

TERTIARY

QUARTZ VEINS

ANDESITE DYKE: dark greyish green to olive green, fine grained to weakly porphyritic

JURASSIC

SIMILKAMEEN INTRUSIONS

GRANITIC ROCKS: QUARTZ MONZONITE: light to medium pinkish grey, coarse grained equigranular, to 15% biotite
GRANODIORITE: medium grey, fine to medium grained, to 25% biotite or hornblende

APLITE: fine grained with occasional pegmatitic veins; pink to light grey

TRIASSIC

NICOLA GROUP VOLCANICS: andesitic; dark greyish green, fine grained to porphyritic with 25% amphibole, pyroxene and/or plagioclase phenocrysts

SYMBOLS

- trench / stripped area outline
- lithological contact
- surface trace of mineralized structure
- VLF-EM anomaly
- magnetic contact
- survey control point, number
- diamond drill hole collar, - dip
- surveyed geophysics station
- surveyed soil sample station - coordinate
- road
- edge of clearcut
- trace of mineralized zone
- significant sample location
- bulk sample location

GEOLOGICAL BRANCH
ASSESSMENT REPORT

19,835

FAIRFIELD MINERALS LTD.

ELK PROPERTY

SIMILKAMEEN MINING DIVISION, BRITISH COLUMBIA
NTS 92H 16W

SIWASH NORTH AREA

COMPILATION MAP

SCALE-1:1000

10 0 10 20 30 40 50 metres

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

FEBRUARY 1990

PLATE 2

SAMPLE NUMBER	LENGTH m	(ft)	Au gm/T	(oz/t)
(SN88-2)				
SN231	0.6	(1.97)	3.98	(0.116)
SN272	1.0	(3.28)	3.02	(0.088)
SN273	1.2	(3.94)	115.48	(3.368)
SN893-2P	1.0	(3.28)	114.76	(3.347)
-6P	0.7	(2.3)	6.72	(0.196)
-7P	0.5	(1.64)	194.16	(5.663)
-8P	1.0	(3.28)	4.73	(0.138)
-11P	1.0	(3.28)	76.49	(2.231)
-12P	1.0	(3.28)	2.78	(0.081)
SN894-2P	1.0	(3.28)	107.69	(3.141)
-3P	1.0	(3.28)	4.97	(0.145)
-6P	1.0	(3.28)	125.11	(3.649)
-7P	1.0	(3.28)	11.93	(0.348)
-10P	1.0	(3.28)	57.63	(1.681)
-11P	1.0	(3.28)	6.17	(0.180)
-22P	1.0	(3.28)	7.65	(0.223)
-24P	1.0	(3.28)	89.94	(2.565)
-26P	1.0	(3.28)	57.98	(1.691)

SAMPLE NUMBER	LENGTH m	(ft)	Au gm/T	(oz/t)
SN895-40P	1.0	(3.28)	12.79	(0.373)
-41P	0.6	(1.97)	62.30	(1.817)
-45P	0.7	(2.30)	99.36	(2.898)
-48P	1.0	(3.28)	28.73	(6.838)
(SN88-3)				
SN258	1.0	(3.28)	17.83	(0.520)
SN260	0.3	(0.98)	3.74	(0.109)
SN261	0.3	(0.98)	12.82	(0.374)
SN262	1.0	(3.28)	5.97	(0.174)
SN264	0.3	(0.98)	11.21	(0.327)

SAMPLE NUMBER	LENGTH m	(ft)	Au gm/T	(oz/t)
SN891-15P	1.0	(3.28)	37.51	(1.094)
-22P	0.5	(1.64)	5.07	(0.148)
-23P	0.7	(2.30)	16.46	(0.480)
(SN88-1)				
SN002	0.3	(0.98)	2.57	(0.075)
SN121	0.3	(0.98)	3.21	(0.094)
SN892-8P	0.8	(2.62)	79.17	(2.309)

A1-A1' 7.56 gm/T Au / 2.0 m (48 m) = 0.220 oz/t / 6.6 ft (155 ft)

A2-A2' 11.69 gm/T Au / 2.0 m (91 m) = 0.341 oz/t / 6.6 ft (299 ft)

B-B' 21.68 gm/T Au / 2.0 m (111 m) = 0.632 oz/t / 6.6 ft (364 ft)

LEGEND

- OVERBURDEN

TERTIARY

- QUARTZ VEINS
- ANDESITE DYKE: dark greyish green to olive green, fine grained to weakly porphyritic
- BRECCIA: brownish grey granitic(?) matrix, subrounded fragments granitic rocks and volcanics, clasts to 30cm and 40%

JURASSIC
SIMILKAMEEN INTRUSIONS

- GRANITIC ROCKS: QUARTZ MONZONITE: light to medium pinkish grey, coarse grained equigranular, to 15% biotite
  GRANODIORITE medium grey, fine to medium grained, to 25% biotite or hornblende
- APLITE: fine grained with occasional pegmatitic veins, pink to light grey

TRIASSIC

- NICOLA GROUP VOLCANICS: andesitic, dark greyish green, fine grained to porphyritic with 25% amphibole, pyroxene and/or plagioclase phenocrysts

ALTERATION CODES

a	argillic	pp	propylitic
kp	k-spar stable phyllic	se	sericitic
m	muscovite	si	silicification
ph	phyllic	sk	skarnification

SYMBOLS

- trench / stripped area outline
- lithological contact exposed, projected
- alteration contact
- fault
- surface trace of mineralized structure
- VLF-EM anomaly
- magnetic contact
- 100/30 strike and dip of quartz vein
- survey control point
- -45 SND89-4 diamond drill hole collar - dip
- 2000E 3300N ▼ 26 surveyed soil sample station - coordinate, result (>20 ppb)
- 2050E 3300N • 26 soil sample station - coordinate, result (>20 ppb)
- rock sample string, sample numbers
- bulk sample
- 2N ELK 20 | ELK 21 claim post, 2N: claim post location, claim numbers
- road
- Forest edge of clearcut
- FL flooded

GEOLOGICAL BRANCH
ASSESSMENT REPORT

19,835

FAIRFIELD MINERALS LTD.

ELK PROPERTY
SIMILKAMEEN MINING DIVISION, BRITISH COLUMBIA
NTS 92H 16W

SIWASH NORTH AREA
WEST HALF
TRENCH PLAN

SCALE-1:500
10 0 10 20 30 40 50 metres

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

FEBRUARY 1990 PLATE 3

SAMPLE NUMBER	LENGTH m	(ft)	Au gm/T	(oz/t)
SN897-19P	1.0	(3.28)	18.47	(0.532)
-21P	0.6	(1.97)	57.87	(1.688)
-22P	1.0	(3.28)	156.45	(4.563)
-102P	1.2	(3.94)	85.27	(2.487)
-105P	1.2	(3.94)	98.57	(2.875)
-106P	0.7	(2.30)	8.60	(0.105)
(SN88-6) SN400	0.5	(1.64)	4.05	(0.118)
SN403	1.2	(3.94)	8.43	(0.246)
SN898-56P	1.0	(3.28)	2.72	(0.079)
-69P	1.0	(3.28)	26.06	(0.760)
-120P	1.0	(3.28)	2.89	(0.084

SAMPLE NUMBER	LENGTH m	(ft)	Au gm/T	(oz/t)
SN8910-2	1.0	(3.28)	3.93	(0.115)
(SN88-4) SN327	0.8	(2.62)	10.80	(0.315)
SN328	0.5	(1.64)	43.72	(1.275)
SN329	0.3	(0.98)	12.75	(0.372)
SN335	0.4	(1.31)	6.48	(0.189)
SN8911-6	1.0	(3.28)	4.87	(0.142)
-11	0.6	(1.97)	3.57	(0.104)
-12	1.0	(3.28)	10.63	(0.310)
-17	1.0	(3.28)	5.97	(0.174)

D-D' 2.80 gm/T Au (0.082 oz/t) over 2.0 m. (6.6 ft) / 45m. (148ft)

LEGEND

- OVERBURDEN

TERTIARY

- QUARTZ VEINS
- ANDESITE DYKE: dark greyish green to olive green, fine grained to weakly porphyritic
- BRECCIA: brownish grey granitic(?) matrix, subrounded fragments granitic rocks and volcanics, clasts to 30cm and 40%

JURASSIC

SIMILKAMEEN INTRUSIONS

- QUARTZ MONZONITE: light to medium pinkish grey, coarse grained equigranular, to 15% biotite
- GRANITIC ROCKS: QUARTZ MONZONITE: light to medium pinkish grey, coarse grained equigranular, to 15% biotite; GRANODIORITE: medium grey, fine to medium grained, to 25% biotite or hornblende
- APLITE: fine grained with occasional pegmatitic veins; pink to light grey

TRIASSIC

- NICOLA GROUP VOLCANICS: andesitic; dark greyish green, fine grained to porphyritic with 25% amphibole, pyroxene and/or plagioclase phenocrysts

ALTERATION CODES

a	argillic	pp	propylitic
kp	k-spar stable phyllic	se	sericitic
m	muscovite	si	silicification
ph	phyllic	sk	skarnification

SYMBOLS

- trench / stripped area outline
- lithological contact exposed, projected
- alteration contact
- fault
- surface trace of mineralized structure
- VLF-EM anomaly
- magnetic contact
- 40/90 strike and dip of quartz vein
- survey control point
- 2900E 3300N ▼ 26 surveyed soil sample station - coordinate, result (>20 ppb)
- 2050E 3300N • 26 soil sample station - coordinate, result (>20 ppb)
- rock sample, sample numbers
- bulk sample
- road
- -45 SND89-4 diamond drill hole collar - dip

GEOLOGICAL BRANCH ASSESSMENT REPORT

19,835

FAIRFIELD MINERALS LTD.

ELK PROPERTY

SIMILKAMEEN MINING DIVISION, BRITISH COLUMBIA
NTS 92H 16W

SIWASH NORTH AREA
EAST HALF
TRENCH PLAN

SCALE-1:500

10 0 10 20 30 40 50 metres

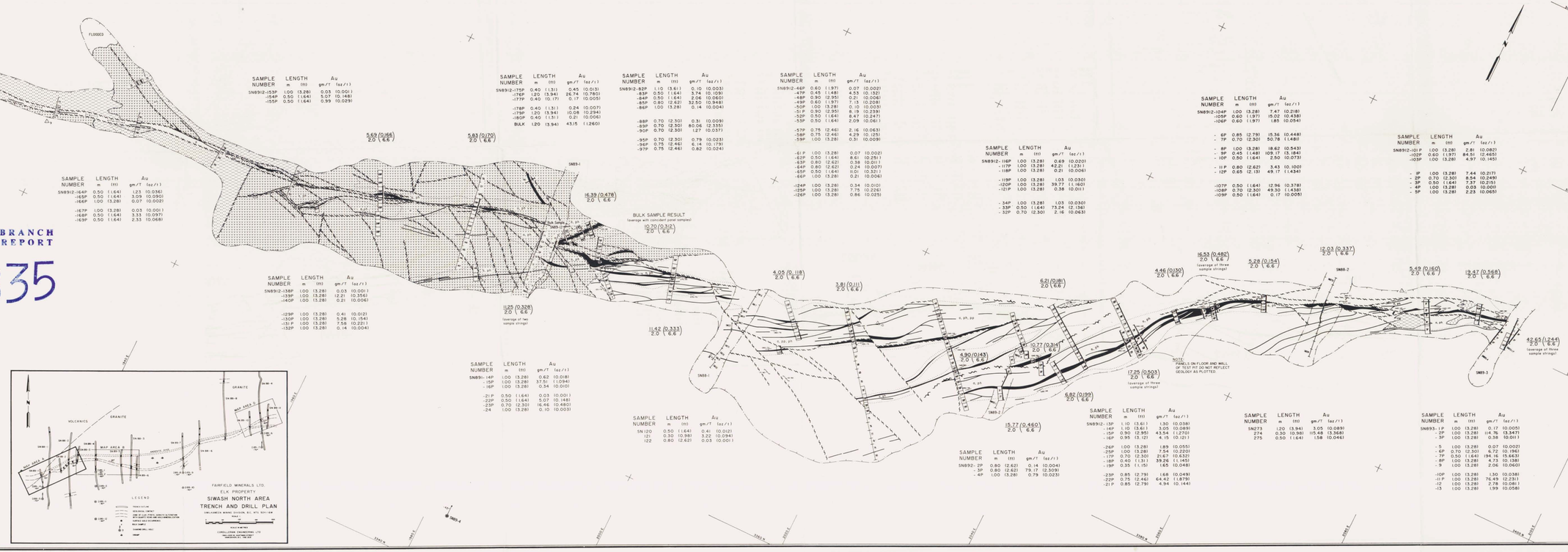
CORDILLERAN ENGINEERING LTD.
1980 - 1055 W. HASTINGS STREET
VANCOUVER, B.C. V6E 2E9

FEBRUARY 1990

PLATE 4

GEOLOGICAL BRANCH
ASSESSMENT REPORT

19,835



LEGEND

TERTIARY

- QUARTZ VEINS: STRIKE AND DIP
- ANDESITE DYKE: STRIKE AND DIP; dark grey-ish green to olive green, fine grained to weakly porphyritic
- BRECCIA: brownish grey granitic (?) matrix, with angular to subrounded clasts and volcanics, clasts to 50 cm and 40%

JURASSIC
SIMILKAMEEN INTRUSIONS

- GRANITIC ROCKS: QUARTZ MONZONITE; light to medium pinkish grey, medium grained, equigranular, to about 25% biotite
  GRANODIORITE; light to medium grey to medium grained, to 25% biotite or hornblende
- APLITE: fine grained with occasional pegmatitic veins, pink to light grey

TRIASSIC
NICOLA GROUP VOLCANICS

- ANDESITE: dark grey-ish green, fine grained to porphyritic with to 25% plagioclase, pyroxene and/or plagioclase phenocrysts.

ALTERATION CODES

- a argillic
- ph phyllic
- pp propylitic
- se sericitic

SYMBOLS

- LIMIT OF STRONGEST ALTERATION
- LITHOLOGICAL CONTACT
- SHEAR, FAULT: STRIKE AND DIP
- REVERSE FAULT: STRIKE AND DIP (TEETH ON UPPER PLATE)
- FRACTURE: STRIKE AND DIP
- EDGE OF TRENCH/STRIPPED AREA
- FLOOR PANEL, WALL PANEL, CHIP SAMPLE (PANELS ARE 0.6 m WIDE)
- BULK SAMPLE
- 5.69 (0.166) AVERAGED GOLD VALUE gm/T (oz/t) 2.0 \ 6.6 SAMPLE LENGTH m \ (ft) TRUE WIDTH
- SURVEY CONTROL POINT
- DIAMOND DRILL HOLE COLLAR DIP

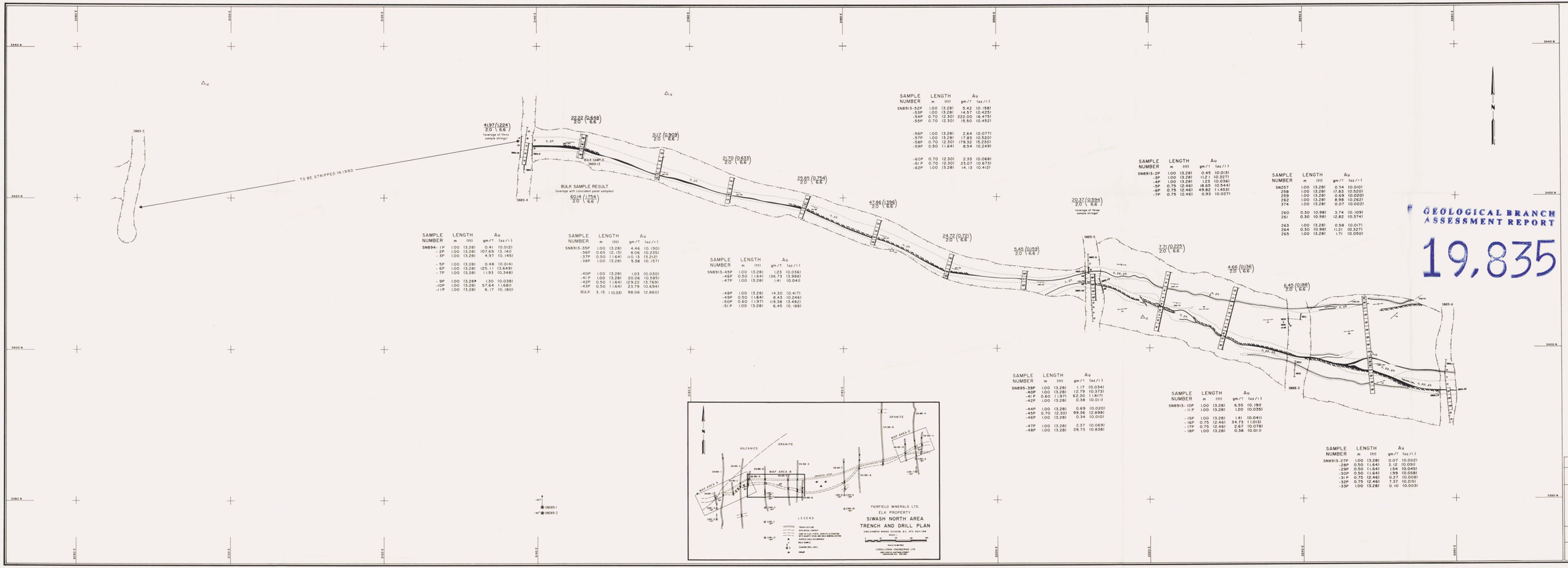
FAIRFIELD MINERALS LTD.
ELK PROPERTY
SIMILKAMEEN MINING DIVISION, BRITISH COLUMBIA
NTS 92 H 16 W

SIWASH NORTH AREA
MAP AREA "A"
STRIPPED AREA GEOLOGY

SCALE 1:200 (1 cm = 2 metres)

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

FEBRUARY 1990 PLATE 5



SAMPLE NUMBER	LENGTH m	(ft)	Au gm/T	(oz/t)
SN894- 1P	1.00	(3.28)	0.41	(0.012)
- 2P	1.00	(3.28)	107.69	(3.140)
- 3P	1.00	(3.28)	4.97	(0.145)
- 5P	1.00	(3.28)	0.48	(0.014)
- 6P	1.00	(3.28)	125.11	(3.649)
- 7P	1.00	(3.28)	11.93	(0.348)
- 9P	1.00	(3.28)	1.30	(0.038)
-10P	1.00	(3.28)	57.64	(1.680)
-11P	1.00	(3.28)	6.17	(0.180)

SAMPLE NUMBER	LENGTH m	(ft)	Au gm/T	(oz/t)
SN8913-35P	1.00	(3.28)	4.46	(0.130)
-36P	0.65	(2.13)	8.06	(0.235)
-37P	0.50	(1.64)	110.15	(3.212)
-38P	1.00	(3.28)	5.38	(0.157)
-40P	1.00	(3.28)	1.03	(0.030)
-41P	1.00	(3.28)	20.06	(0.585)
-42P	0.50	(1.64)	129.22	(3.769)
-43P	0.50	(1.64)	23.79	(0.694)
BULK	3.15	(10.33)	98.06	(2.860)

SAMPLE NUMBER	LENGTH m	(ft)	Au gm/T	(oz/t)
SN8913-45P	1.00	(3.28)	1.23	(0.036)
-46P	0.50	(1.64)	136.73	(3.988)
-47P	1.00	(3.28)	1.41	(0.041)
-48P	1.00	(3.28)	14.30	(0.417)
-49P	0.50	(1.64)	8.43	(0.246)
-50P	0.60	(1.97)	119.38	(3.482)
-51P	1.00	(3.28)	6.45	(0.188)

SAMPLE NUMBER	LENGTH m	(ft)	Au gm/T	(oz/t)
SN8913-52P	1.00	(3.28)	5.42	(0.158)
-53P	1.00	(3.28)	3.57	(0.425)
-54P	0.70	(2.30)	222.00	(6.475)
-55P	0.70	(2.30)	15.50	(0.452)
-56P	1.00	(3.28)	2.64	(0.077)
-57P	1.00	(3.28)	17.83	(0.520)
-58P	0.70	(2.30)	179.32	(5.230)
-59P	0.50	(1.64)	8.54	(0.249)
-60P	0.70	(2.30)	2.33	(0.068)
-61P	0.70	(2.30)	23.07	(0.673)
-62P	1.00	(3.28)	14.13	(0.412)

SAMPLE NUMBER	LENGTH m	(ft)	Au gm/T	(oz/t)
SN8913-2P	1.00	(3.28)	0.45	(0.013)
-3P	1.00	(3.28)	11.21	(0.327)
-4P	1.00	(3.28)	1.23	(0.036)
-5P	0.75	(2.46)	18.65	(0.544)
-6P	0.75	(2.46)	49.82	(1.453)
-7P	0.75	(2.46)	0.93	(0.027)

SAMPLE NUMBER	LENGTH m	(ft)	Au gm/T	(oz/t)
SN257	1.00	(3.28)	0.14	(0.010)
258	1.00	(3.28)	17.83	(0.5201)
259	1.00	(3.28)	0.69	(0.0201)
262	1.00	(3.28)	8.98	(0.2621)
374	1.00	(3.28)	0.07	(0.0002)
260	0.30	(0.98)	3.74	(0.109)
261	0.30	(0.98)	12.82	(0.374)
263	1.00	(3.28)	0.58	(0.017)
264	0.30	(0.98)	11.21	(0.327)
265	1.00	(3.28)	1.71	(0.050)

SAMPLE NUMBER	LENGTH m	(ft)	Au gm/T	(oz/t)
SN8913-10P	1.00	(3.28)	6.55	(0.190)
-11P	1.00	(3.28)	1.20	(0.035)
-15P	1.00	(3.28)	1.41	(0.041)
-16P	0.75	(2.46)	34.73	(1.013)
-17P	0.75	(2.46)	2.67	(0.078)
-18P	1.00	(3.28)	0.38	(0.011)

SAMPLE NUMBER	LENGTH m	(ft)	Au gm/T	(oz/t)
SN895-39P	1.00	(3.28)	1.17	(0.034)
-40P	1.00	(3.28)	12.79	(0.373)
-41P	0.60	(1.97)	62.30	(1.817)
-42P	1.00	(3.28)	0.38	(0.011)
-44P	1.00	(3.28)	0.69	(0.020)
-45P	0.70	(2.30)	99.36	(2.898)
-46P	1.00	(3.28)	0.34	(0.010)
-47P	1.00	(3.28)	2.37	(0.069)
-48P	1.00	(3.28)	28.73	(0.838)

SAMPLE NUMBER	LENGTH m	(ft)	Au gm/T	(oz/t)
SN8913-27P	1.00	(3.28)	0.07	(0.002)
-28P	0.50	(1.64)	3.12	(0.091)
-29P	0.50	(1.64)	1.54	(0.045)
-30P	0.75	(2.46)	0.34	(0.010)
-31P	0.75	(2.46)	1.37	(0.008)
-32P	0.75	(2.46)	7.37	(0.215)
-33P	1.00	(3.28)	0.10	(0.003)

LEGEND

TERTIARY

- QUARTZ VEINS: STRIKE AND DIP
- ANDESITE DYKE: STRIKE AND DIP; dark grey-green green to olive green, altered to weakly propylitic
- BRECCIA: brownish grey granitic (?) matrix, subrounded fragments granitic rocks and volcanics, clasts to 30 cm and 40%

JURASSIC
SIMILKAMEEN INTRUSIONS

- GRANITIC ROCKS: QUARTZ MONZONITE; medium grey to medium grey-green, coarse grained equigranular, to about 15% biotite
- GRANODIORITE; medium grey, fine to medium grained, to 25% biotite or hornblende
- APLITE: fine grained with accessorial pegmatitic veins, pink to light grey

TRIASSIC
NICOLA GROUP VOLCANICS

- ANDESITE: dark green-grey, fine grained to porphyritic with to 25% amphibole, pyroxene and /or plagioclase phenocrysts

ALTERATION CODES

- a argillic
- ph phyllic
- pp propylitic
- sk sericitic

SYMBOLS

- LIMIT OF STRONGEST ALTERATION
- LITHOLOGICAL CONTACT
- SHEAR, FAULT: STRIKE AND DIP
- REVERSE FAULT: STRIKE AND DIP (TEETH ON UPPER PLATE)
- FRACTURE: STRIKE AND DIP
- EDGE OF TRENCH/STRIPPED AREA
- FLOOR PANEL, WALL PANEL, CHIP SAMPLE (HANDLE ARE 0.5m WIDE)
- BULK SAMPLE
- 4.97 (1.224) AVERAGED GOLD VALUE gm/Ton (oz/t) over 2.0 (6.6) metres (feet) TRUE WIDTH
- SURVEY CONTROL POINT
- DIAMOND DRILL HOLE COLLAR DIP

GEOLOGICAL BRANCH
ASSESSMENT REPORT
19,835

FAIRFIELD MINERALS LTD.
ELK PROPERTY
SIMILKAMEEN MINING DIVISION, BRITISH COLUMBIA
NTS 92 H 12 W

SIWASH NORTH AREA
MAP AREA "B"
STRIPPED AREA GEOLOGY

SCALE 1:200
0 5 10 metres

CORDILLERAN ENGINEERING LTD.
3451-255 W. HASTINGS STREET
VANCOUVER, B.C. V6B 1K9

FEBRUARY 1990

PLATE 6

SAMPLE NUMBER	LENGTH m	(ft)	Au gm/T	(oz/t)
SN8914-12P	1.00	(3.28)	0.86	(0.025)
-13P	1.00	(3.28)	14.71	(0.429)
-14P	0.85	(2.79)	0.10	(0.003)

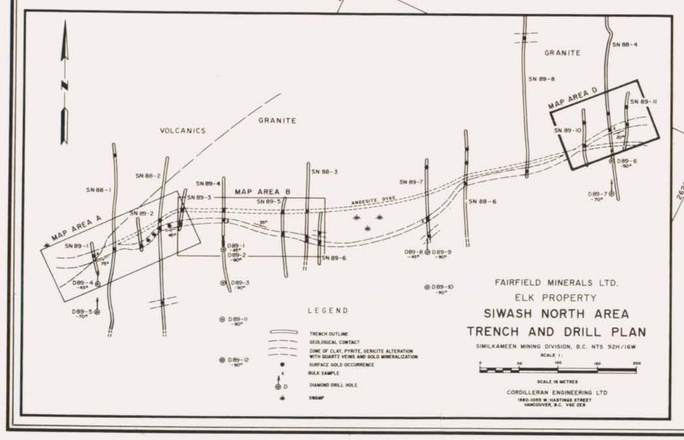
SAMPLE NUMBER	LENGTH m	(ft)	Au gm/T	(oz/t)
SN8914-60P	1.40	(4.59)	2.26	(0.066)
-61P	0.60	(1.97)	3.46	(0.101)
-62P	0.60	(1.97)	6.96	(0.203)
-63P	1.40	(4.59)	0.38	(0.011)
SN8914-64P	1.40	(4.59)	2.54	(0.074)
-65P	0.60	(1.97)	22.63	(0.660)
-66P	0.60	(1.97)	0.79	(0.023)
-67P	1.40	(4.59)	0.48	(0.014)
BULK	1.20	(3.94)	15.60	(0.455)

SAMPLE NUMBER	LENGTH m	(ft)	Au gm/T	(oz/t)
SN8914-31P	1.00	(3.28)	0.34	(0.010)
-32P	1.00	(3.28)	4.32	(0.126)
-33P	1.00	(3.28)	0.21	(0.006)
-51P	1.00	(3.28)	0.03	(0.001)
-52P	1.00	(3.28)	62.09	(1.811)
-53P	1.00	(3.28)	18.96	(0.553)
-54P	1.00	(3.28)	0.79	(0.023)

SAMPLE NUMBER	LENGTH m	(ft)	Au gm/T	(oz/t)
SN8911-5	1.00	(3.28)	0.27	(0.008)
-6	1.00	(3.28)	4.87	(0.142)
-11	0.60	(1.97)	3.57	(0.104)
-12	1.00	(3.28)	10.63	(0.310)
-13	0.70	(2.30)	0.08	(0.002)
-14	0.70	(2.30)	0.04	(0.001)
-15	1.00	(3.28)	0.06	(0.002)
-16	1.00	(3.28)	5.97	(0.174)
-17	1.00	(3.28)	0.05	(0.001)

SAMPLE NUMBER	LENGTH m	(ft)	Au gm/T	(oz/t)
SN330	1.00	(3.28)	0.65	(0.019)
329	0.30	(0.98)	12.79	(0.373)
328	0.50	(1.64)	43.71	(1.275)
327	0.80	(2.62)	10.80	(0.315)
384	1.00	(3.28)	0.27	(0.008)

SAMPLE NUMBER	LENGTH m	(ft)	Au gm/T	(oz/t)
SN8914-2P	1.00	(3.28)	0.03	(0.001)
-3P	0.50	(1.65)	2.50	(0.073)
-4P	0.50	(1.50)	0.65	(0.019)



Bulk Sample SN89-14

7.10 (0.207) / 2.0 (6.6)

2.64 (0.077) / 2.0 (6.6)

4.16 (0.121) / 2.0 (6.6)

2.50 (0.073) / 2.0 (6.6)

LEGEND

TERTIARY

- QUARTZ VEINS: STRIKE AND DIP
- ANDESITE DYKE: STRIKE AND DIP. dark greyish green to olive green, fine grained to weakly porphyritic
- BRECCIA: brownish grey granitic (?) matrix, subrounded fragments granitic rocks and volcanics, clasts to 30 cm and 40%

JURASSIC
SIMILKAMEEN INTRUSIONS

- GRANITIC ROCKS: QUARTZ MONZONITE: light to medium pinkish grey, coarse grained equigranular, to about 15% biotite; GRANODIORITE: medium grey, fine to medium grained, to 25% biotite or hornblende
- APLITE: fine grained with occasional pegmatitic veins; pink to light grey

TRIASSIC
NICOLA GROUP VOLCANICS

- ANDESITE: dark greyish green, fine grained to porphyritic with to 25% amphibole, pyroxene and/or plagioclase phenocrysts

ALTERATION CODES

- o argillic
- ph phyllic
- pp propylitic
- se sericitic

SYMBOLS

- LIMIT OF STRONGEST ALTERATION
- LITHOLOGICAL CONTACT
- SHEAR, FAULT STRIKE AND DIP
- REVERSE FAULT STRIKE AND DIP (TEETH ON UPPER PLATE)
- FRACTURE STRIKE AND DIP
- EDGE OF TRENCH / STRIPPED AREA
- FLOOR PANEL, WALL PANEL, CHIP SAMPLE (PANELS ARE 0.5m WIDE)
- BULK SAMPLE
- 7.10 (0.207) / 2.0 (6.6) AVERAGED GOLD VALUE gm/Ton (oz/ton) / TRUE WIDTH metres (feet)
- SURVEY CONTROL POINT
- -45° DIAMOND DRILL HOLE COLLAR DIP

FAIRFIELD MINERALS LTD.

ELK PROPERTY

SIMILKAMEEN MINING DIVISION, BRITISH COLUMBIA
NTS 92 H 16 W

SIWASH NORTH AREA
MAP AREA "D"
STRIPPED AREA GEOLOGY

SCALE 1:200
0 5 10 metres

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

FEBRUARY 1990

PLATE 7

SAMPLE NUMBER	LENGTH m (ft)	Au gm/T (oz/t)
SS898 -11	1.00 (3.28)	0.011 (0.001)
-12	1.00 (3.28)	1.110 (0.032)
-13	1.00 (3.28)	1.027 (0.030)
-14	1.00 (3.28)	0.199 (0.006)

SAMPLE NUMBER	LENGTH m (ft)	Au gm/T (oz/t)
SS894 -6	1.00 (3.28)	0.070 (0.002)
-7	1.00 (3.28)	2.914 (0.085)
-8	1.00 (3.28)	7.920 (0.231)
-9	1.00 (3.28)	1.024 (0.030)
-10	1.00 (3.28)	1.053 (0.031)
-11	1.00 (3.28)	0.196 (0.006)
-12	1.00 (3.28)	1.189 (0.035)
-13	1.00 (3.28)	0.427 (0.012)
-14	0.50 (1.64)	1.278 (0.037)
-15	0.50 (1.64)	0.037 (0.001)
-19	0.50 (1.64)	0.158 (0.005)
-20	1.00 (3.28)	0.831 (0.024)
-21	0.50 (1.64)	0.073 (0.002)
-22	0.50 (1.64)	0.258 (0.008)
-23	1.00 (3.28)	0.721 (0.021)
-24	1.00 (3.28)	2.083 (0.061)
-25	1.00 (3.28)	1.175 (0.034)
-26	1.00 (3.28)	0.440 (0.013)
-29	1.00 (3.28)	0.008 (0.001)
-30	1.00 (3.28)	3.360 (0.098)
-31	1.00 (3.28)	0.207 (0.003)

SAMPLE NUMBER	LENGTH m (ft)	Au gm/T (oz/t)
SS893 -5	0.50 (1.64)	0.008 (0.001)
-6	0.50 (1.64)	0.779 (0.023)
-7	1.00 (3.28)	0.009 (0.001)
-22	0.70 (2.30)	0.012 (0.001)
-23	0.50 (1.64)	2.021 (0.059)
-24	0.40 (1.31)	0.050 (0.001)
-25	0.60 (1.97)	0.209 (0.006)
-26	0.50 (1.64)	1.092 (0.032)
-27	1.00 (3.28)	0.060 (0.002)

SAMPLE NUMBER	LENGTH m (ft)	Au gm/T (oz/t)
SS892 -5	1.00 (3.28)	0.086 (0.003)
-6	0.50 (1.64)	3.094 (0.090)
-7	1.00 (3.28)	0.163 (0.005)

SAMPLE NUMBER	LENGTH m (ft)	Au gm/T (oz/t)
SS891 -1	1.00 (3.28)	0.913 (0.027)
-2	1.00 (3.28)	0.054 (0.002)
-18	1.00 (3.28)	0.921 (0.027)
-19	1.00 (3.28)	0.081 (0.002)

LEGEND

OVERBURDEN

TERTIARY

QUARTZ VEINS

ANDESITE DYKE: dark greyish green to olive green, fine grained to weakly porphyritic

BRECCIA: brownish grey granitic (?) matrix, subrounded fragments granitic rocks and volcanics, clasts to 30cm and 40%

JURASSIC
SIMILKAMEEN INTRUSIONS

GRANITIC ROCKS: QUARTZ MONZONITE: light to medium pinkish grey, coarse grained equigranular, to 15% biotite
GRANODIORITE: medium grey, fine to medium grained, to 25% biotite or hornblende

APLITE: fine grained with occasional pegmatitic veins; pink to light grey

TRIASSIC

NICOLA GROUP VOLCANICS: andesitic; dark greyish green, fine grained to porphyritic with 25% amphibole, pyroxene and/or plagioclase phenocrysts

ALTERATION CODES

a	argillic	pp	propylitic
kp	k-spar stable phyllic	se	sericitic
m	muscovite	si	silicification
ph	phyllic	sk	skarnification

SYMBOLS

- trench / stripped area outline
- lithological contact exposed, projected
- alteration contact
- fault
- strike and dip of vein
- rock sample string
- trench floor soil sample results
- road

FAIRFIELD MINERALS LTD.

ELK PROPERTY

SIMILKAMEEN MINING DIVISION, BRITISH COLUMBIA
NTS 92H 16W

SOUTH SHOWING AREA
TRENCH PLAN

SCALE-1:500

10 0 10 20 30 40 50 metres

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

FEBRUARY 1990

PLATE 8

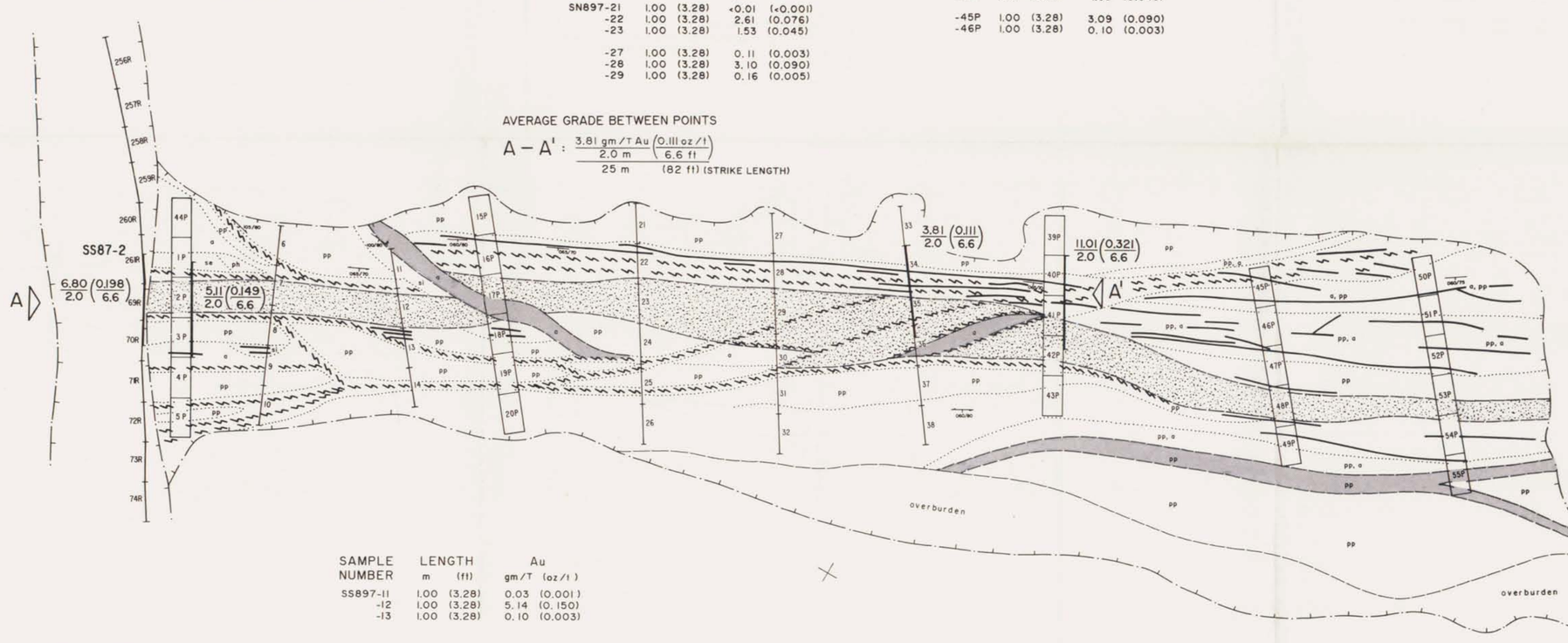
SAMPLE NUMBER	LENGTH m	(ft)	Au gm/T	(oz/t)
SS897-44P	1.00	(3.28)	0.16	(0.005)
- 1P	1.00	(3.28)	3.19	(0.093)
- 2P	1.00	(3.28)	5.14	(0.150)
- 3P	1.00	(3.28)	5.73	(0.167)
- 4P	1.00	(3.28)	0.18	(0.005)

SAMPLE NUMBER	LENGTH m	(ft)	Au gm/T	(oz/t)
SN897-21	1.00	(3.28)	<0.01	(<0.001)
-22	1.00	(3.28)	2.61	(0.076)
-23	1.00	(3.28)	1.53	(0.045)
-27	1.00	(3.28)	0.11	(0.003)
-28	1.00	(3.28)	3.10	(0.090)
-29	1.00	(3.28)	0.16	(0.005)

SAMPLE NUMBER	LENGTH m	(ft)	Au gm/T	(oz/t)
SS897-33	1.00	(3.28)	0.05	(0.001)
-34	1.00	(3.28)	2.61	(0.076)
-35	1.00	(3.28)	5.93	(0.173)
-36	1.00	(3.28)	1.12	(0.033)
-39P	1.00	(3.28)	0.01	(<0.001)
-40P	1.00	(3.28)	23.35	(0.681)
-41P	1.00	(3.28)	1.69	(0.049)
-45P	1.00	(3.28)	3.09	(0.090)
-46P	1.00	(3.28)	0.10	(0.003)

AVERAGE GRADE BETWEEN POINTS

$A-A'$: $\frac{3.81\ gm/T\ Au\ \left(\frac{0.111\ oz/t}{6.6\ ft}\right)}{\frac{2.0\ m}{25\ m\ \ (82\ ft)\ (STRIKE\ LENGTH)}}$



SAMPLE NUMBER	LENGTH m	(ft)	Au gm/T	(oz/t)
SS897-11	1.00	(3.28)	0.03	(0.001)
-12	1.00	(3.28)	5.14	(0.150)
-13	1.00	(3.28)	0.10	(0.003)

SAMPLE NUMBER	LENGTH m	(ft)	Au gm/T	(oz/t)
SS260R	1.00	(3.28)	0.21	(0.006)
261R	1.30	(4.27)	4.80	(0.140)
069R	1.00	(3.28)	9.67	(0.282)
070R	1.00	(3.28)	4.56	(0.133)
071R	1.00	(3.28)	0.21	(0.006)

LEGEND

TERTIARY

QUARTZ VEINS: STRIKE AND DIP

ANDESITE DYKE: STRIKE AND DIP: dark greyish green to olive green, fine grained to weakly porphyritic

BRECCIA: brownish grey granitic (?) matrix, subrounded fragments granitic rocks and volcanics, clasts to 30 cm and 40%

JURASSIC
SIMILKAMEEN INTRUSIONS

QUARTZ MONZONITE: light to medium pinkish grey, coarse grained equigranular, to about 15% biotite

ALTERATION CODES

a	argillic
ph	phyllic
pp	propylitic
se	sericitic
si	silicification

SYMBOLS

- ALTERATION CONTACT
- LITHOLOGICAL CONTACT
- SHEAR, FAULT
- FRACTURE STRIKE & DIP
- EDGE OF TRENCH / STRIPPED AREA
- 8P | 68 — FLOOR PANEL, CHIP SAMPLE (PANELS ARE 0.5m WIDE)
- 41P | 11.01 (0.321) / 2.0 / 6.6 — AVERAGED GOLD VALUE gm/Ton metres / (oz/ton feet) TRUE WIDTH

FAIRFIELD MINERALS LTD.

ELK PROPERTY
SIMILKAMEEN MINING DIVISION, BRITISH COLUMBIA
NTS 92 H 16 W

SOUTH SHOWING AREA

TRENCH SS89-7
STRIPPED AREA GEOLOGY

SCALE 1:100
0 1 2 3 4 5 metres

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

FEBRUARY 1990

PLATE 9

SAMPLE NUMBER	LENGTH m (ft)	Au gm/T (oz/t)
SL 892 - 1	1.00 (3.28)	0.034 (0.001)
- 2	1.00 (3.28)	0.034 (0.001)
- 3 P	1.00 (3.28)	0.171 (0.005)
- 4 P	0.5 (1.64)	0.617 (0.018)
- 5 P	1.00 (3.28)	0.171 (0.005)
- 6	1.00 (3.28)	0.617 (0.018)
- 7	1.00 (3.28)	0.034 (0.001)
- 8 P	1.00 (3.28)	0.240 (0.007)
- 9 P	0.5 (1.64)	3.051 (0.089)
- 10P	1.00 (3.28)	0.103 (0.003)

SL89-2

SL89-1

SAMPLE NUMBER	LENGTH m (ft)	Au gm/T (oz/t)
SL891 - 1	1.00 (3.28)	0.069 (0.002)
- 2 P	1.00 (3.28)	0.274 (0.008)
- 3 P	1.00 (3.28)	0.034 (0.001)
- 4 P	1.00 (3.28)	5.417 (0.158)
- 5 P	1.00 (3.28)	12.686 (0.370)
- 6	1.00 (3.28)	0.480 (0.014)
- 7 P	1.00 (3.28)	0.034 (0.001)
- 8 P	1.00 (3.28)	0.137 (0.004)
- 9 P	1.00 (3.28)	0.651 (0.019)

1440 ppb

LEGEND

OVERBURDEN

TERTIARY

QUARTZ VEINS

ANDESITE DYKE: dark greyish green to olive green, fine grained to weakly porphyritic

BRECCIA: brownish grey granitic (?) matrix, subrounded fragments granitic rocks and volcanics, clasts to 30cm and 40%

JURASSIC
SIMILKAMEEN INTRUSIONS

GRANITIC ROCKS: QUARTZ MONZONITE: light to medium pinkish grey, coarse grained equigranular, to 15% biotite
GRANODIORITE: medium grey, fine to medium grained, to 25% biotite or hornblende

APLITE: fine grained with occasional pegmatitic veins; pink to light grey

TRIASSIC

NICOLA GROUP VOLCANICS: andesitic; dark greyish green, fine grained to porphyritic with 25% amphibole, pyroxene and / or plagioclase phenocrysts

ALTERATION CODES

a	argillic	pp	propylitic
kp	k-spar stable phyllic	se	sericitic
m	muscovite	si	silicification
ph	phyllic	sk	skarnification

SYMBOLS

- trench / stripped area outline
- lithological contact exposed, projected
- alteration contact
- fault
- surface trace of mineralized structure
- VLF-EM anomaly
- magnetic contact
- strike and dip of fracturing
- survey control point
- diamond drill hole collar - dip
- surveyed geophysics station
- surveyed soil sample station - coordinate, result (>20 ppb)
- soil sample station - coordinate, result (>20 ppb)
- rock sample string
- trench floor soil sample results
- road

FAIRFIELD MINERALS LTD.

ELK PROPERTY

SIMILKAMEEN MINING DIVISION, BRITISH COLUMBIA
NTS 92H 16W

SIWASH LAKE AREA

TRENCH PLAN

TRENCHES SL89-1, SL89-2

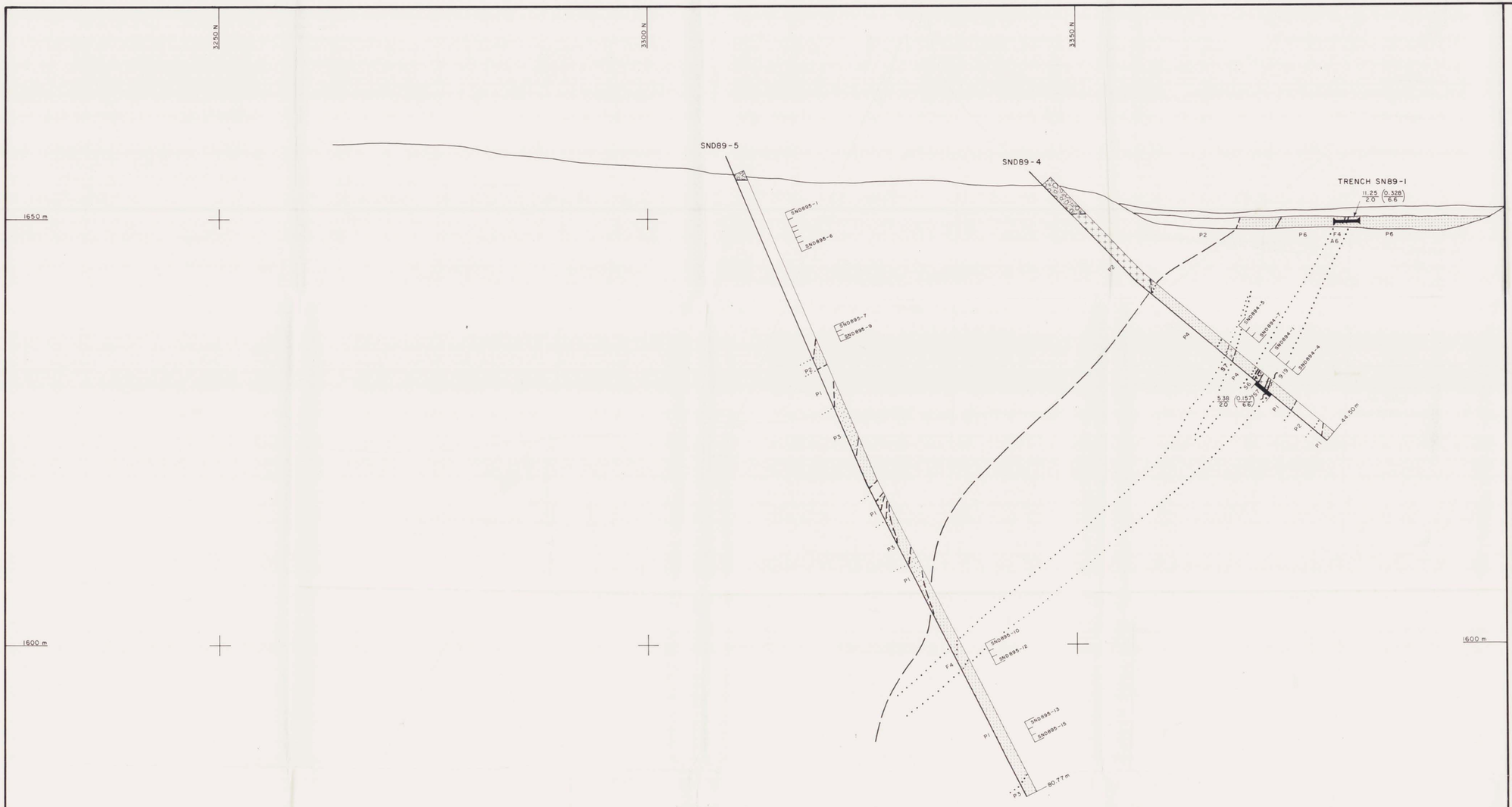
SCALE-1:500

10 0 10 20 30 40 50 metres

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

FEBRUARY 1990

PLATE 10



LEGEND

OVERBURDEN

TERTIARY

QUARTZ VEINS

ANDESITE DYKE: dark greyish green to olive green, fine grained to weakly porphyritic

JURASSIC

SIMILKAMEEN INTRUSIONS

QUARTZ MONZONITE: light to medium pinkish grey, coarse grained equigranular, to about 15% biotite

GRANODIORITE: medium grey, fine to medium grained, to 25% biotite or hornblende

APLITE: fine grained with occasional pegmatitic veins, pink to light grey

GRANITE: pink to pinkish grey, medium grained, 30% to 70% K-spar, some hornblende

TRIASSIC

NICOLA GROUP VOLCANICS

ANDESITE: dark greyish green, fine grained to porphyritic with 25% amphibole, pyroxene and/or plagioclase phenocrysts

ALTERATION CODES

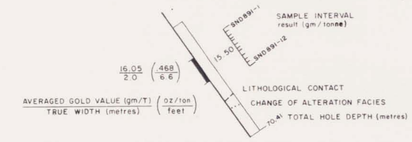
A(n): argillic
F(n): phyllic
K(n): potassic
KP: K-spar stable phyllic
P(n): propylitic
S(n): sericitic

[(n) = 1 to 9, weak to intense]

SYMBOLS

lithological contact
alteration contact
shear, fault
averaged trench sample interval

PLOT OF DIAMOND DRILL HOLE



FAIRFIELD MINERALS LTD.

ELK PROPERTY

SIMILKAMEEN MINING DIVISION, BRITISH COLUMBIA
NTS 92H 16W

SIWASH NORTH

DIAMOND DRILL HOLE SECTION
(LOOKING WEST)
1990 E
TRENCH SN89-1, DDH SND89-4, SND89-5

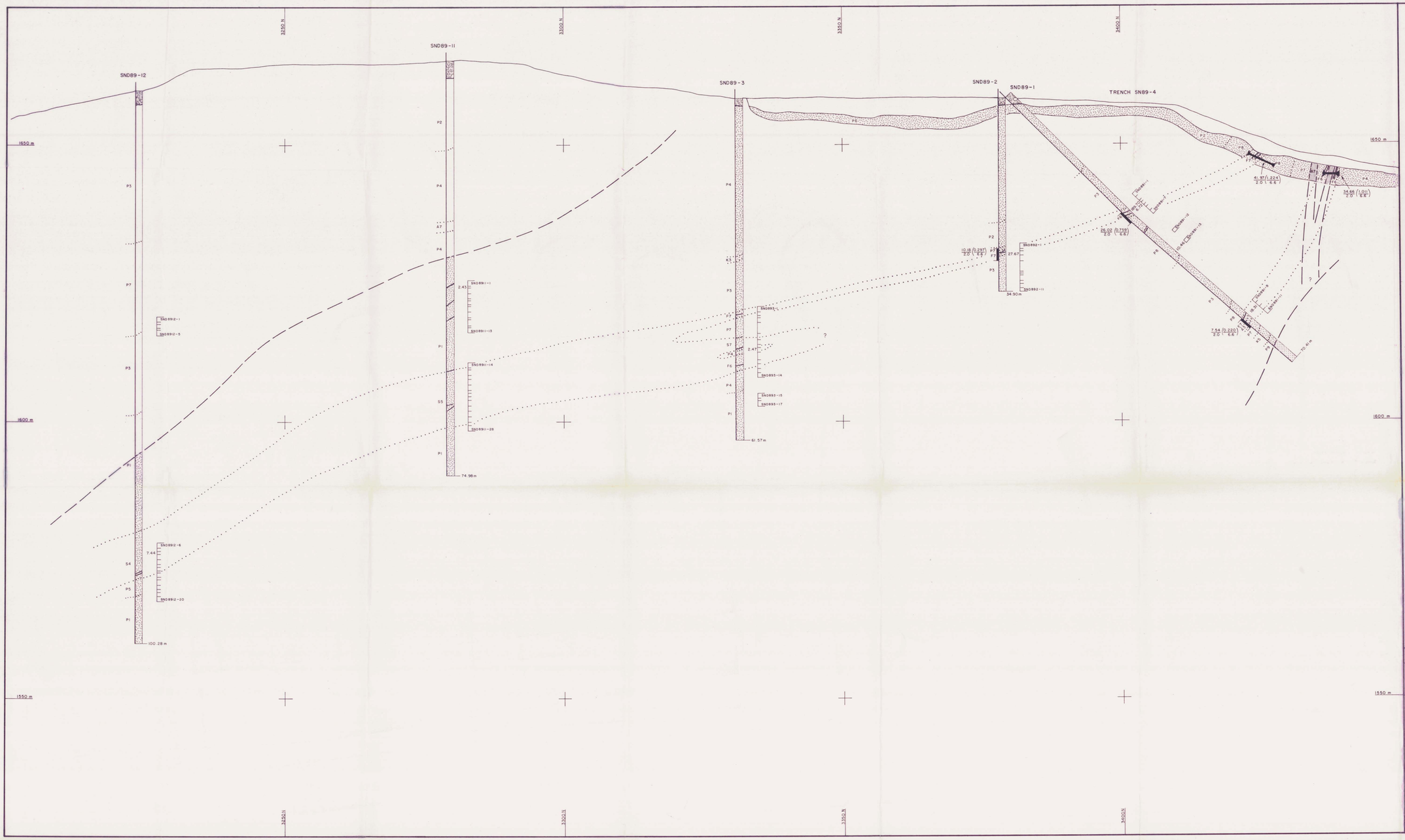
SCALE-1:250

5 0 5 10 15 20 25 metres

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

FEBRUARY 1990

PLATE II



LEGEND

OVERBURDEN

TERTIARY

QUARTZ VEINS

ANDESITE DYKE: dark greyish green to olive green, fine grained to weakly porphyritic

JURASSIC

SIMILKAMEEN INTRUSIONS

QUARTZ MONZONITE: light to medium pinkish grey, coarse grained equigranular, to about 15% biotite

GRANODIORITE: medium grey, fine to medium grained, to 25% biotite or hornblende

APLITE: fine grained with occasional pegmatitic veins, pink to light grey

GRANITE: pink to pinkish grey, medium grained, 30% to 70% K-spar, some hornblende

TRIASSIC

NICOLA GROUP VOLCANICS

ANDESITE: dark greyish green, fine grained to porphyritic with 25% amphibole, pyroxene and/or plagioclase phenocrysts

ALTERATION CODES

A(n): argillic
KP: K-spar stable phyllic
F(n): phyllic
P(n): propylitic
K(n): potassic
S(n): sericitic
[(n) = 1 to 9, weak to intense]

SYMBOLS

lithological contact
alteration contact
shear, fault
averaged trench sample interval

PLOT OF DIAMOND DRILL HOLE

SAMPLE INTERVAL result (gm/tonne)
AVERAGED GOLD VALUE (gm/T) / TRUE WIDTH (metres) — (oz/ton) (feet)
LITHOLOGICAL CONTACT
CHANGE OF ALTERATION FACIES
TOTAL HOLE DEPTH (metres)

GEOLOGICAL BRANCH
ASSESSMENT REPORT

19,835

FAIRFIELD MINERALS LTD.

ELK PROPERTY
SIMILKAMEEN MINING DIVISION, BRITISH COLUMBIA
NTS 92H 16W

SIWASH NORTH
DIAMOND DRILL HOLE SECTION
(LOOKING WEST)
2150 E
TRENCH SN89-4, DDH SND89-1, SND89-2, DDH SND89-3, SND89-11, SND89-12

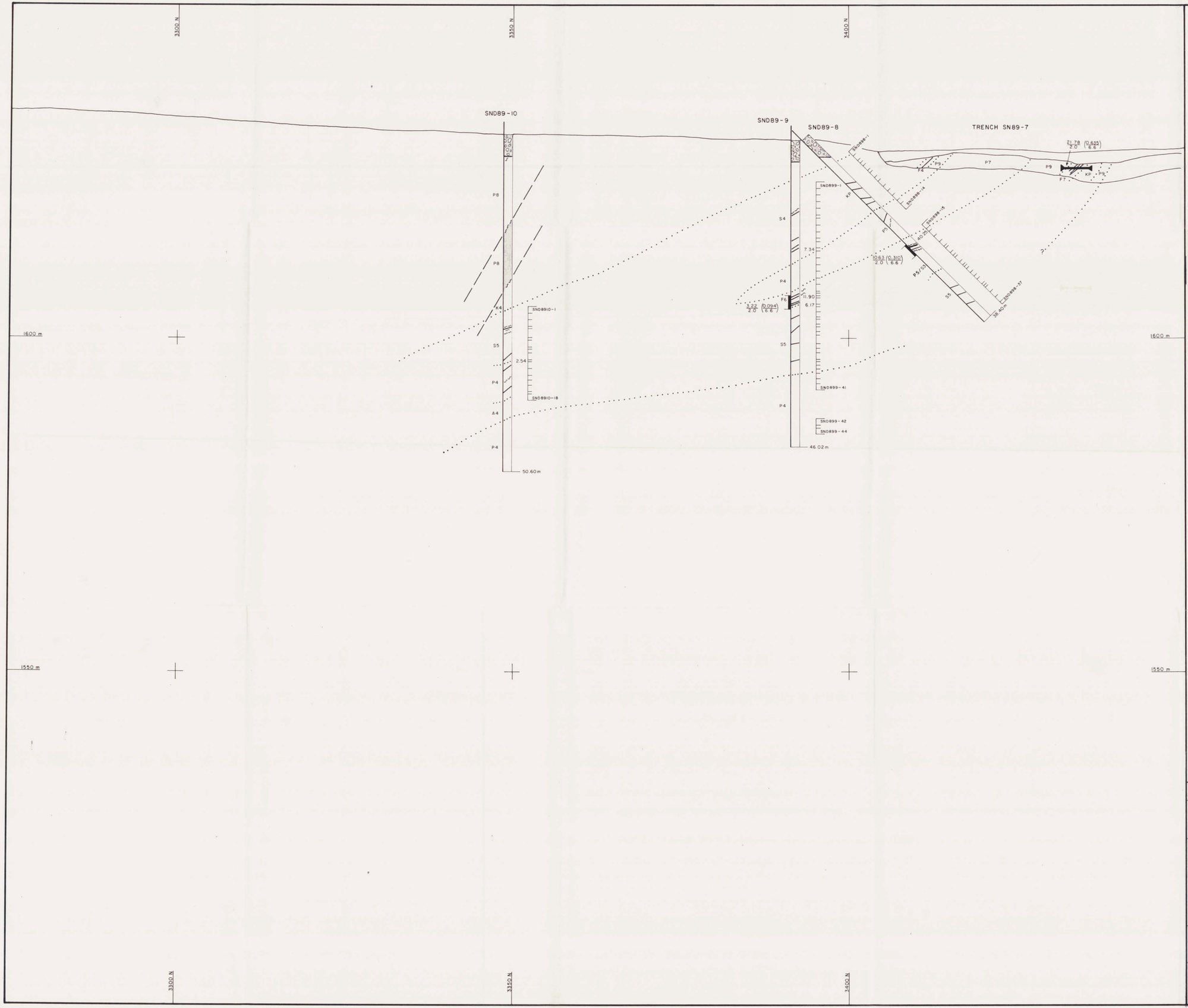
SCALE-1:250

5 0 5 10 15 20 25 metres

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

FEBRUARY 1990

PLATE 12



LEGEND

OVERBURDEN

TERTIARY

QUARTZ VEINS

ANDESITE DYKE: dark greyish green to olive green, fine grained to weakly porphyritic

JURASSIC

SIMILKAMEEN INTRUSIONS

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GRANITE: pink to pinkish grey, medium grained, 30% to 70% K-spar, some hornblende

TRIASSIC

NICOLA GROUP VOLCANICS

ANDESITE: dark greyish green, fine grained to porphyritic with 25% amphibole, pyroxene and/or plagioclase phenocrysts

ALTERATION CODES

A(n): argillic — KP: K-spar stable phyllic

F(n): phyllic — P(n): propylitic

K(n): potassic — S(n): sericitic

[(n) = 1 to 9, weak to intense]

SYMBOLS

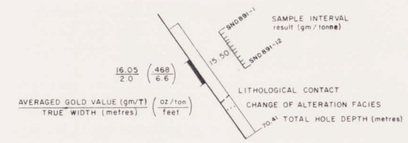
lithological contact

alteration contact

shear, fault

averaged trench sample interval

PLOT OF DIAMOND DRILL HOLE



FAIRFIELD MINERALS LTD.

ELK PROPERTY

SIMILKAMEEN MINING DIVISION, BRITISH COLUMBIA
NTS 92H 16W

SIWASH NORTH

DIAMOND DRILL HOLE SECTION
(LOOKING WEST)
2450 E

TRENCH SN89-7, DDH SND89-8, SND89-9, SND89-10

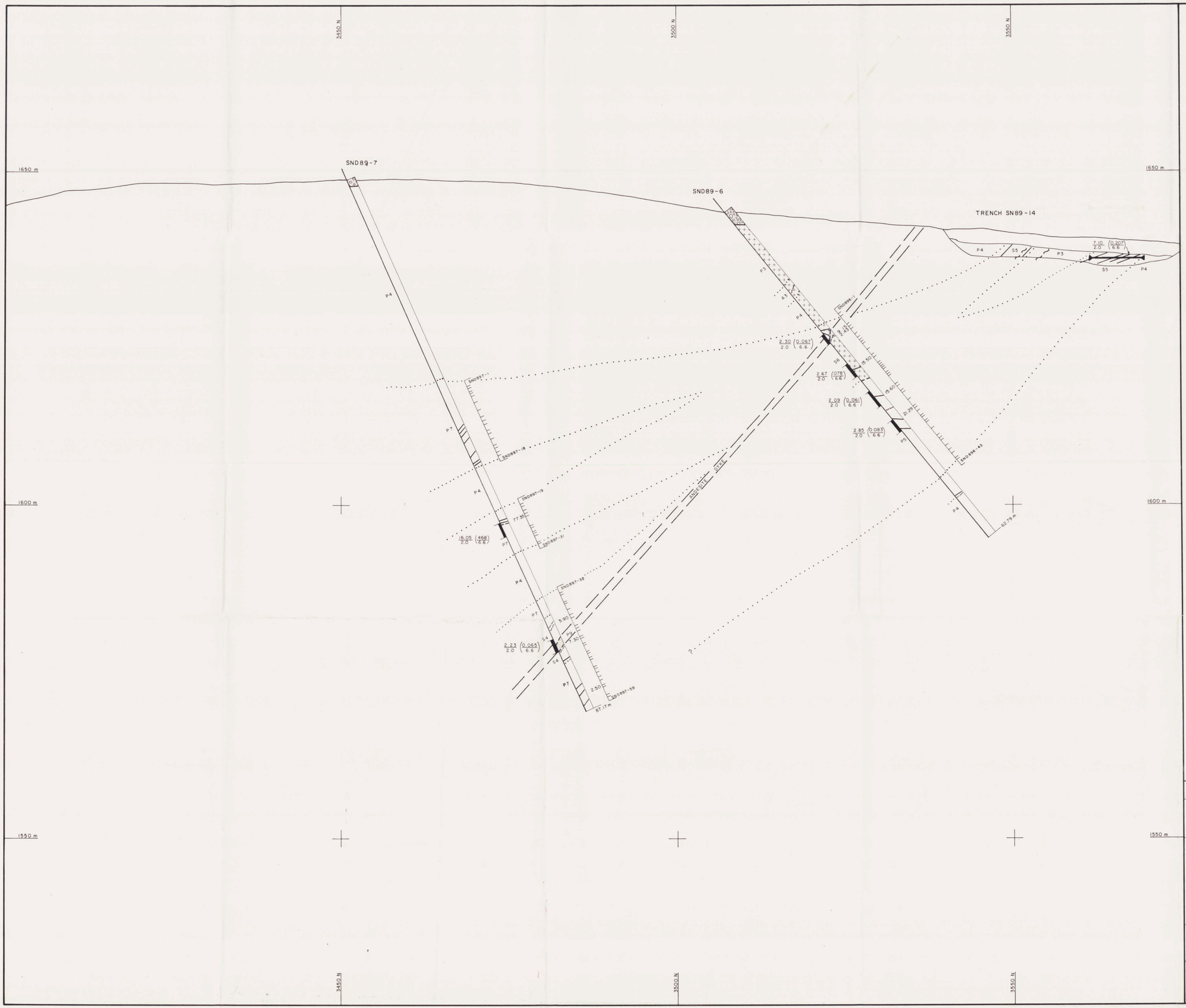
SCALE-1:250

5 0 5 10 15 20 25 metres

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

FEBRUARY 1990

PLATE 13



LEGEND

OVERBURDEN

TERTIARY

QUARTZ VEINS

ANDESITE DYKE: dark greyish green to olive green, fine grained to weakly porphyritic

JURASSIC

SIMILKAMEEN INTRUSIONS

QUARTZ MONZONITE: light to medium pinkish grey, coarse grained equigranular, to about 15% biotite

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APLITE: fine grained with occasional pegmatitic veins, pink to light grey

GRANITE: pink to pinkish grey, medium grained, 30% to 70% K-spar, some hornblende

TRIASSIC

NICOLA GROUP VOLCANICS

ANDESITE: dark greyish green, fine grained to porphyritic with 25% amphibole, pyroxene and/or plagioclase phenocrysts

ALTERATION CODES

A(n): argillic	KP: K-spar stable phyllic
F(n): phyllic	P(n): propylitic
K(n): potassic	S(n): sericitic

[(n) = 1 to 9, weak to intense]

SYMBOLS

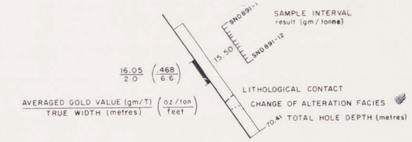
lithological contact

alteration contact

shear, fault

averaged trench sample interval

PLOT OF DIAMOND DRILL HOLE



GEOLOGICAL BRANCH
ASSESSMENT REPORT

19,835

FAIRFIELD MINERALS LTD.

ELK PROPERTY

SIMILKAMEEN MINING DIVISION, BRITISH COLUMBIA
NTS 92H 16W

SIWASH NORTH

DIAMOND DRILL HOLE SECTION
(LOOKING WEST)
2650 E

TRENCH SN89-14, DDHSND89-6, SND89-7

SCALE-1:250

5 0 5 10 15 20 25 metres

CORDILLERAN ENGINEERING LTD.
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FEBRUARY 1990

PLATE 14