ARIS SUMMARY SHEET

District Geologist, Vancouver Off Confidential: 94.10.12

ASSESSMENT REPORT 23238 MINING DIVISION: Vancouver

```
PROPERTY:       Treat
LOCATION:       LAT    49 50 00      LONG    123 51 00
                UTM    10  5520227   438871
                NTS    092G13W
CLAIM(S):       Treat 1-2
OPERATOR(S):    Anthian Res.
AUTHOR(S):      Kikauka, A.
REPORT YEAR:    1993, 144 Pages
COMMODITIES
SEARCHED FOR:   Gold,Silver,Copper,Zinc
KEYWORDS:       Cretaceous,Volcanics,Sediments,Roof pendant,Alteration,Pyrite
                Pyrrhotite,Chalcopyrite,Sphalerite,Magnetite,Hematite
WORK
DONE:      Geological,Geochemical,Geophysical,Physical
           EMGR      10.3 km;VLF
           FOTO     400.0 ha
               Map(s) - 1; Scale(s) - 1:13 333
           GEOL     225.0 ha
               Map(s) - 1; Scale(s) - 1:2500
           LINE      10.3 km
           MAGG      10.3 km
           PETR      7 sample(s)
           ROCK     89 sample(s) ;ME
               Map(s) - 1; Scale(s) - 1:2500
           SOIL   196 sample(s) ;ME
MINFILE:        092G
```

NTS 92G/13W
lat. 49° 45'N
long. 123° 50'W

GEOLOGICAL, GEOCHEMICAL, GEOPHYSICAL REPORT ON THE TREAT 1 AND 3 MINERAL CLAIMS JERVIS INLET

VANCOUVER MINING DIVISION

For
ANTHIAN RESOURCE CORP.
#1730 - 1055 West Georgia Street
Vancouver, B.C.
V6E 3P3
P.O. Box 11115

By
Andris Kikauka, P.Geo.
ARROWHEAD EXPLORATION SERVICES
#900 - 999 West Hastings Street
Vancouver, B.C.
V6C 2W2

April 21, 1993

SUMMARY

Arrowhead Exploration Services carried out a field program, consisting of geological mapping, rock, and soil sampling, VLF-EM and magnetometer survey on the Treat 1 and 3 claims for Anthian Resource Corp., during March 1993. The Treat property consists of two contiguous claims (35 units) located in the Vancouver Mining Division, on Jervis Inlet, about 12 kilometres north of Egmont, B.C.

The Treat property is underlain by a Cretaceous volcanic and sedimentary roof pendant that is elongated along a northwest trend. Lithology of the pendant consists of massive andesitic tuffs/flows, with intercalations of argillaceous siltstone, chert, and agglomerate. Deformation and very low grade metamorphism of this roof pendant has produced extensive epidote, quartz, and chlorite alteration that formed during the emplacement of the surrounding Cretaceous and/or Tertiary Coast Range Plutonic Complex.

Previous work on the property during 1971 consisted of geological mapping, soil geochemistry, VLF-EM and magnetometer geophysics, and approximately 2,500 feet of AQ diamond drilling outlined extensive fracture fillings, veins, and/or replacement sulphide mineralization. A 10 foot drill intersection returned an assay value of 0.35%Cu.

The 1993 exploration program outlined four areas that require follow-up work.

1. The first area is the adit creek showing where massive, semi-massive to disseminated sulphides occur in shear zones and fractures located at the southeast corner of the grid area. Sampling this showing yielded values of up to 3.03oz/St silver, 4064 ppm copper and 2809 ppm zinc.

2. The second area highlights the T1 drill target zone located on L3+00S - 7+50E to 10+00E where drill hole T1 by El Paso in 1971 intersected 0.2% Cu across 30 feet zone. A high amplitude, narrow width Mag anomaly is coincident with this zone.
3. The third area is located between L3+00S - 4+50E and LL4+00S - 5+00E and represents massive pyrrhotite, pyrite and chalcopyrite mineralization of the T2 drill target zone. Sampling this showing yielded values of up to 9.98oz/St silver, 2.03% copper, 2199 ppm Pb and 6792 ppm zinc.
4. This area represents the Lone Jack Creek showing located on the lower end of Lone Jack Creek where a rusty, disseminated volcanic tuff outcrops are exposed with magnetite, pyrrhotite and pyrite.

A second phase exploration program has been recommended and will consist of follow-up trenching, detailed soil sampling, magnetometer survey and geological mapping on all areas which require follow-up work in addition to mapping and rock sampling the unmapped portions of the property at an estimated cost of $100,500. Contingent on the results of this proposed program, diamond drilling may be recommended.

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LIST OF FIGURES AND MAPS

LIST OF APPENDICES

1.0 INTRODUCTION

This report was prepared at the request of Anthian Resource Corp. to describe and evaluate the results of geological, geochemical, and geophysical fieldwork on the Treat 1 and 3 mineral claims located on Jervis Inlet. The purpose of this field program was to assess the economic mineral potential of the claim group.

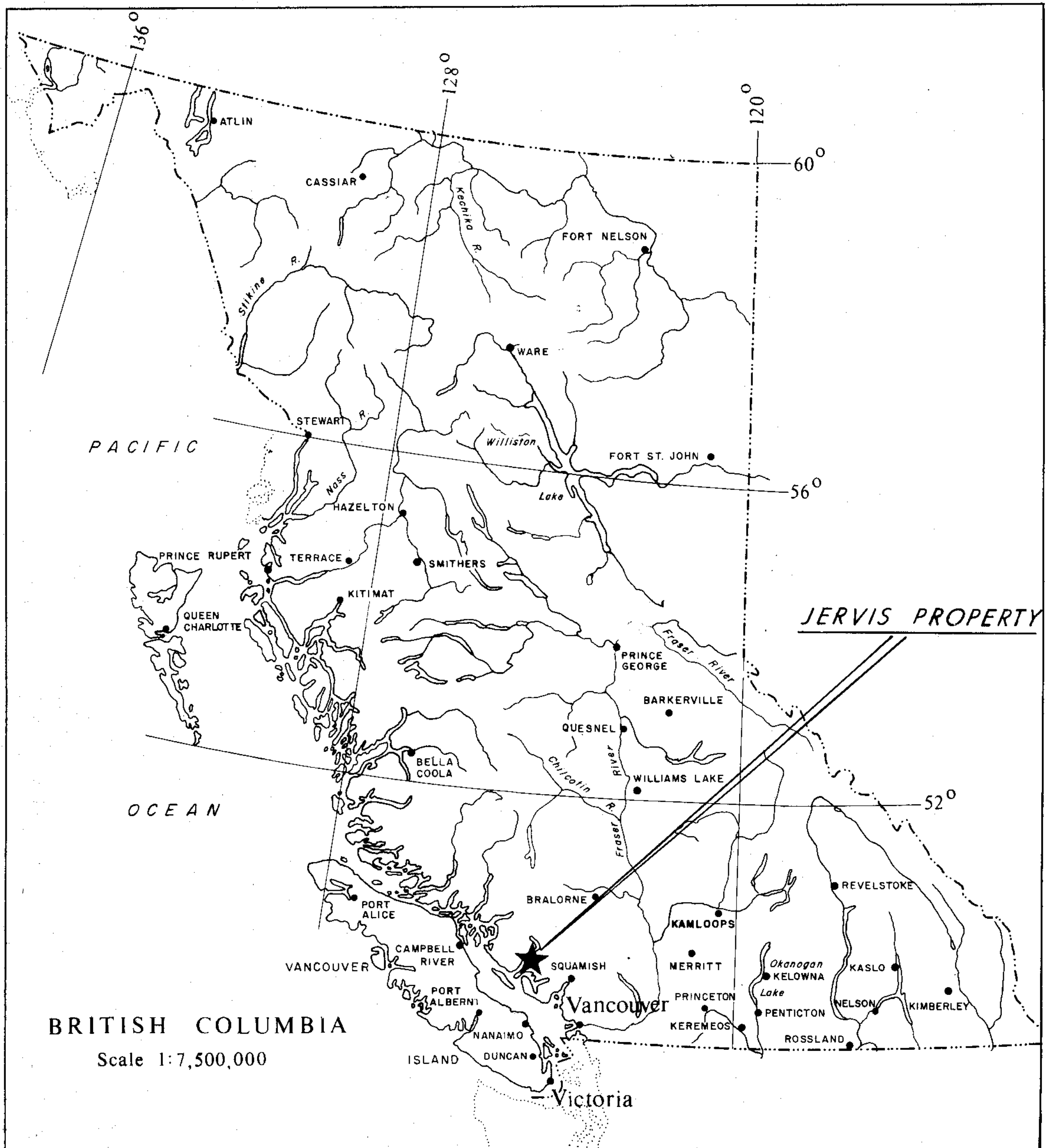
Fieldwork included geological mapping and rock sampling, soil geochemistry, VLF-EM and magnetometer geophysics. The work was performed by Arrowhead Exploration Services during March 13-30, 1993. The field crew consisted of Andris Kikauka, Fayz Yacoub, Andrew MacIntosh (geologists), and Kevin Gerlitz (geophysicist).

2.0 LOCATION, ACCESS, AND PHYSIOGRAPHY (Figure 1)

The Treat 1 and 3 claims are located on Jervis Inlet, 12 kilometres north of Earl's Cove ferry terminal on the Sunshine Coast Highway. The claims are situated at Latitude 49° 45' N and Longitude 123° 50° W, on NTS map sheet 92° G/13° W, and are within the Vancouver Mining Division.

The property is accessed via boat along Jervis Inlet from Earl's Cove or Egmont to the mouth of Treat Creek. Two floating docks at the mouth of Treat Creek can be used by permission of the gravel processing plant, owned by Delta Rock Aggregates, which currently operates year round near the mouth of Treat Creek. The claims are located adjacent to the gravel pit and are criss-crossed by a network of logging roads that are presently used by a logging company.

Elevation on the claims rise from sea level to 1,000 meters (3,300 feet). The property has moderate to steep slopes typical of the rugged topography of Jervis Inlet. Recent alpine glaciation has enhanced the steepness of the terrain by scouring and excavating the valley bottoms. Glaciation has also deposited a 20-60 meters deep alluvial gravel fan near the mouth of Treat Creek that supports a large scale gravel pit operation.



PROFESSIONAL GEOSCIENTIST
PROVINCE OF BRITISH COLUMBIA
A. A. KIKAUKA

ANTHIAN RESOURCE CORP.

JERVIS PROPERTY
TREAT 1,3
GENERAL LOCATION MAP

Scale 1 : 7 500 000	Date: APRIL, 1993
Drawn : J. S.	Figure 1

Arrowhead Exploration Services

Vegetation consists of fir-hemlock-cedar-spruce softwood and alder-maple hardwood with minor pine-larch-arbutus on rocky slopes. Although vegetation is dense (especially in clear cuts with recent regrowth), there is relatively thin soil depth of about 20-40 centimetres. Climate is coastal marine with cool, wet winters and warm, dry summers. Snow accumulation is minimal, and work could be carried out year round.

3.0 PROPERTY STATUS (Figure 2)

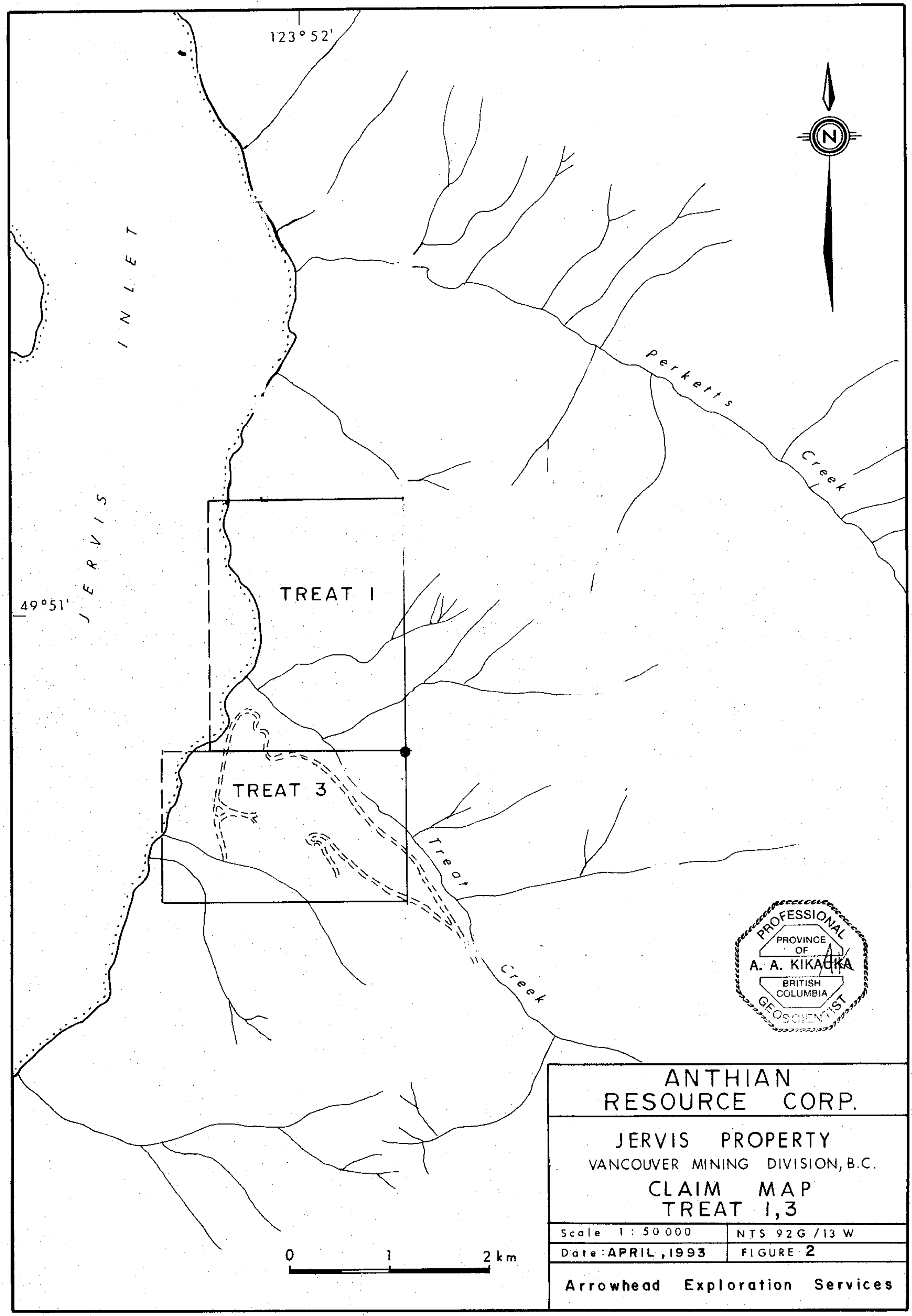
The registered owner of the Treat 1 and 3 claims is Clive Ashworth of Vancouver, B.C. The property consists of 2 contiguous mineral claims covering an area of 875 hectares. Claim data is as follows:

CLAIM NAME	UNITS	RECORD NO.	RECORD DATE	EXPIRY DATE
Treat 1	20	2657	Nov. 25,89	Nov. 25,93
Treat 3	15	2659	Nov. 25,89	Nov. 25,93

4.0 AREA HISTORY

There are approximately 60 base and precious metal mines and prospects within a 50 kilometre radius of the Treat property. This includes the famous Britannia copper mine, located on the east side of Howe Sound, which produced 48 million tonnes of 1.1% copper, 0.3% zinc, 0.03% lead, 0.3 g/t gold, and 3.8 g/t silver. The Britannia ore body is hosted in a northwest trending deformed roof pendant consisting of Cretaceous Gambier Group volcanics and sediments. Mining at Britannia ceased in 1974 when the main ore reserve was depleted. For the greater part of its 70 year history, Britannia was the largest copper producer in the British Commonwealth.

Other base and precious metal deposits have been explored and developed within the Coast Range near Jervis Inlet. Notable prospects include; McVicar (Cu-Ag-Au), Roy (Cu-Ag-Au), Indian River (Cu-Zn), Gambier Island (Cu-Mo), Cambrian Chieftan (Cu-Ag-Au), Red Jacket (Cu-Ag-Au-Mo), Howe Copper (Cu-Ag-Mo), Brittain River (Mo), and Diadem (Cu-Pb-Zn-Ag-Au).


123°52'
49°51'
JERVIS INLET
Perketts Creek
Treat Creek
TREAT 1
TREAT 3
N
0 1 2 km
PROFESSIONAL
PROVINCE OF
A. A. KIKAUKA
BRITISH COLUMBIA
GEOSCIENTIST
ANTHIAN RESOURCE CORP.
JERVIS PROPERTY
VANCOUVER MINING DIVISION, B.C.
CLAIM MAP
TREAT 1,3
Scale 1 : 50 000
NTS 92G/13 W
Date: APRIL, 1993
FIGURE 2
Arrowhead Exploration Services

5.0 PROPERTY HISTORY

In 1917, three adits were driven into massive pyrrhotite-magnetite mineralization located at an elevation of 2,000 feet. A grab sample of solid magnetite-pyrrhotite assayed 1.1% Cu, 1.2 oz/t Ag, 0.02 oz/t Au, and 33.9% Fe. A four foot wide face sample assayed 1.0% Cu, 0.8 oz/t Ag, trace Au, and 19.3% Fe.

Several years later, numerous mineral showings were located at elevations of 500 to 2,500 feet. During the 1920's another adit was driven at an elevation of 1,000 feet as well as several trenches at elevations of 500, 800, and 1,400 feet.

In 1966, Gunnex Ltd. performed a mapping and sampling program which covered all the old workings. Hugo Laanela, consulting geologist for Gunnex, took 13 rock chip samples that gave an unweighed assay average of 0.24% Cu. Mr. Laanela recommended an extensive exploration program based on the relative abundance of mineral showings. In 1971, El Paso Mining performed an extensive survey grid which included geological mapping, soil geochemistry, VLF-EM and magnetometer geophysics, and diamond drilling. Pyrite, pyrrhotite, magnetite, chalcopyrite, sphalerite, and molybdenite mineralization coincides with anomalous Cu-Zn-Ag-Mo soil geochemistry and strong magnetic and VLF-EM geophysical responses. Approximately 2,500 feet of AQ diamond drilling outlined extensive fracture filling, vein, and/or replacement sulphide mineralization and related quartz-epidote alteration. A 10 foot drill intersection, located near the 2,000 foot elevation adits, returned an assay value of 0.35% Cu. Core was assayed only for copper and zinc.

In 1987, Ashworth Explorations Ltd. performed mapping and sampling on the Treat property. A rock chip sample across a width of two meters from a well mineralized road cut at 500 foot elevation returned an assay of 0.1% Cu, 0.2% Pb, 2.8% Zn and 20.7 g/t Ag. A rock chip sample across a width of four meters near the trenches at

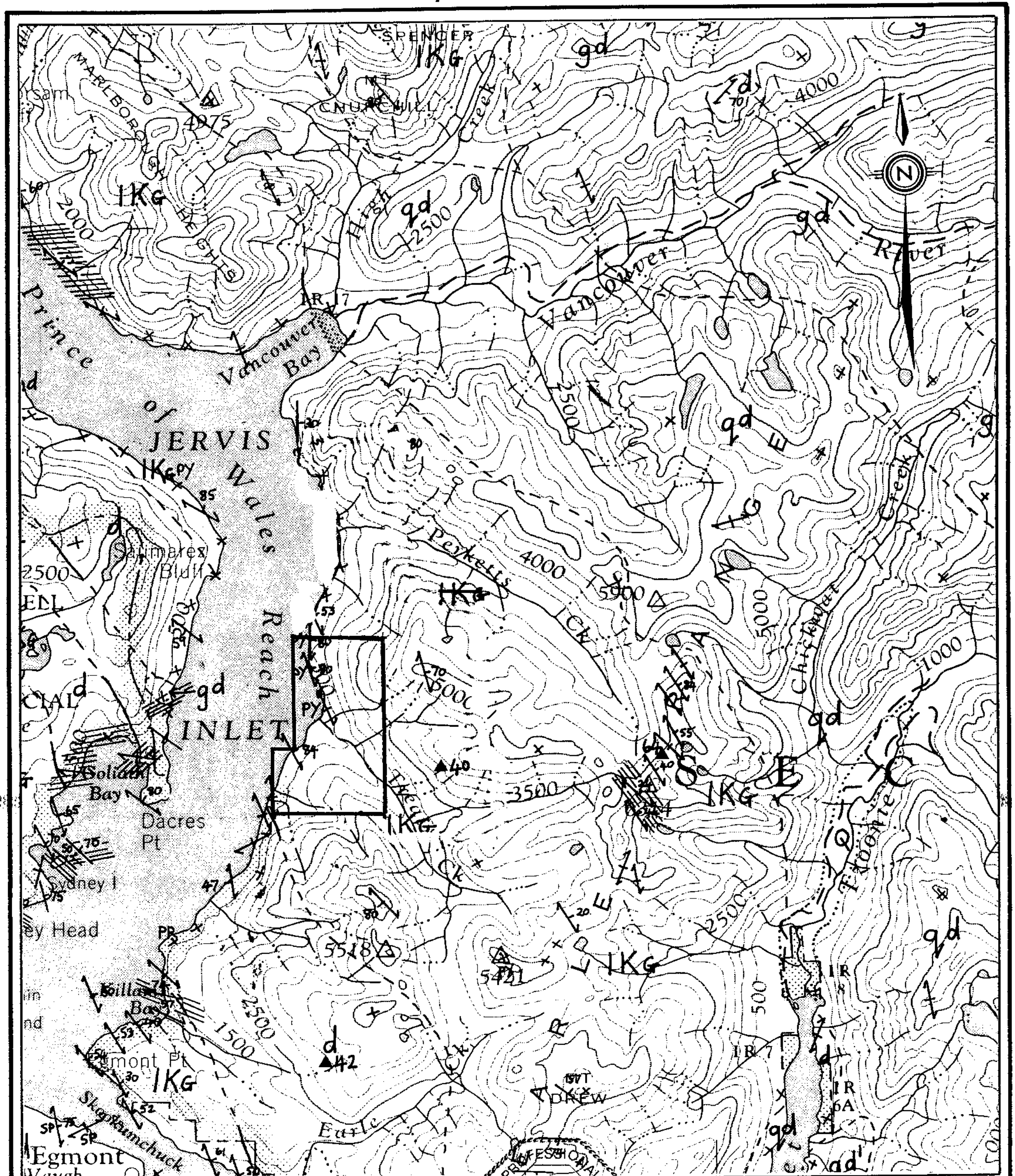
1,400 foot elevation assayed 0.3% Cu, 0.2% Zn, and 22 g/t Ag. Further mapping, trenching, and geophysics were recommended.

6.0 GENERAL GEOLOGY (Figure 3)

A series of northwest trending, Upper Triassic to Lower Cretaceous volcanic and sedimentary roof pendants occur within the massive, Cretaceous-Tertiary Coast Range intrusive complex. The Coast Range Complex forms a continuous belt from Hope, B.C. through to the Alaska Panhandle. The Coast Plutonic Complex consists mainly of quartz diorite and granodiorite which form large, discrete, homogeneous plutons. In rare cases, the plutons form complexes with gneiss and migmatite.

The volcanic and sedimentary roof pendants form 15% of the total volume of bedrock in the Coast Range complex. These pendants are wedge shaped and are about 1-10 kilometres wide and 5-50 kilometres long. The volcanic rocks range from basalt to rhyolite and the sediments range from coarse to fine grain clastics with minor limestone and chert. These volcanic and sedimentary sequence were deposited in an island arc volcanic environment with subsequent deformation related to the emplacement of the Coast Range Plutonic Complex. Metamorphism, as a result of deformation, ranges from sub-greenschist to sillimanite facies.

Most of the mineral deposits in the Coast Range occur in these roof pendants and are spatially related to an increase in sulphide mineralization, silicification, and/or alteration. The Britannia copper-zinc sulphide deposit is interpreted as a volcanogenic deposit formed from hydrothermal and exhalitive solutions related to dacitic volcanism, and deformed during later shearing and faulting. Mineralogy of the Britannia ore consists of mostly pyrite, chalcopyrite, and sphalerite with minor galena, tennantite, and/or tetrahedrite.



0 1 2 3 4 5 km

ANTHIAN RESOURCE CORP.

JERVIS PROPERTY

VANCOUVER MINING DIVISION, B.C.

TREAT 1,3

REGIONAL GEOLOGY MAP

Scale 1 : 125000	By: F.Y.
Date : APRIL, 93	Figure : 3

Arrowhead Exploration Services

Geology by J.A. Roddick, G.J. Woodsworth and W.W. Hutchison, 1970-1974.

LEGEND

QUATERNARY

PLEISTOCENE AND RECENT

Q	Alluvial, marine and glacial deposits.

LOWER CRETACEOUS

lKG	GAMBIER GROUP Andesite to rhyodacite flows and pyroclastics, greenstone, argillite; minor conglomerate, limestone and schist.

PLUTONIC ROCKS

(IUGS Classification, 1973)

gd,gdu	Granodiorite; gdu (non-IUGS classification, from older reports)
gd'	Leucocratic varieties of granodiorite, tonalite and quartz diorite; minor β - granite
qd,qdu	Quartz diorite; qdu (non-IUGS classification, from older reports)
qd'	Leucocratic quartz diorite, minor granodiorite and tonalite
qmd	Quartz monzodiorite, minor quartz diorite
d	Diorite, minor gabbro and quartz diorite

SYMBOLS

Approximate limit of outcrop

Geological boundary (known, approximate)

Attitude of bedding or flows (inclined, vertical)

Attitude of foliation (inclined, vertical, dip unknown)

Outcrop examined; bedding or foliation absent

Fault (approximate)

Fossil Locality

Dyke Swarms

MINERAL DEPOSITS ▲

Reference	Name	Product(s)
40	Copper (T)	Au, Ag, Cu, Fe
42	Red Jacket	Ag, Cu, Mo, Au
64	---	Mo

7.0 1993 FIELD PROGRAM

7.1 METHODS AND PROCEDURES

A 1.2 kilometre north-south baseline was established using the intersection of Lone Jack Creek and a logging road which follows a 600 foot elevation contour. 16 east-west cross lines at 100 meter spacing were surveyed using hip chains and compasses to cover the main mineral zone on the property. A total of 10.4 kilometres of grid line was surveyed.

All grid lines were flagged and stations established at 25 meter intervals. Soil samples were taken with a grubhoe from a depth of 20-40 cm. at 50 meter intervals along cross lines. About 300-500 grams of 'B' horizon soil were placed in marked kraft envelopes, dried, and shipped to Vangeochem Lab Ltd. for analysis. A total of 196 soil samples were taken.

A Scintrex EDA Omni Plus and Omni 4 geophysical system was used to measure total magnetic field and VLF-EM conductivity contrasts. A total of 750 magnetometer and VLF-EM readings were taken at 12.5 meter spacing along cross lines.

Geological mapping, covering about 50 hectares, was carried out at a scale of 1:2,500. Detailed geological mapping, covering about 2 hectares, was executed at a scale of 1:500. A mineralized outcrop was sampled with rock hammer and chisel. Rock chip samples were taken across widths of 8-500 cm., with an average sample size of 1.5 kilograms. A total of 89 rock samples were shipped to Vangeochem Lab Ltd. and analyzed for 30 elements I.C.P. and fire assayed for gold.

Seven rock samples were sent to John Payne (Vancouver Petrographics Ltd.) for Thin Section descriptions. The aerial photographs of the property were sent to Dr. Richard E. Kucera for structural interpretation. Geological and geochemical data was processed by Tony Clarke Ph.D. of Tony Clarke Consulting. Geophysical data was processed by Geophysicist Trent Pezzot (GeoSci Data Analysis Ltd.).

8.0 RESULTS

8.1 PROPERTY GEOLOGY AND MINERALIZATION

The following description of Lithologic units is based on geological mapping by the author, Mr. Fayz Yacoub (Geologist) and from petrographic analysis by Vancouver Petrographics Ltd. (see Map 1 for thin section sample locations). Bedrock exposure on the Treat 1 and 3 claims is sparse and generally restricted to cliffs, creek beds and road cuts.

The property is underlain by a sequence of Cretaceous volcanics and sediments that have been intruded by Tertiary and Quaternary dykes and sills. Lithologic formations are divided into the following units:

TERTIARY AND QUATERNARY INTRUSIVE ROCKS

QUARTZ MONZONITE dykes and sills, light grey to cream colour, poorly developed porphyritic texture, 1-4 mm. subhedral to anhedral plagioclase phenocrysts.

ANDESITE HYPABYSSAL dykes and sills, dark green to grey colour, fine grained equigranular texture, 0.5-0.8 mm. plagioclase and pyroxene phenocrysts.

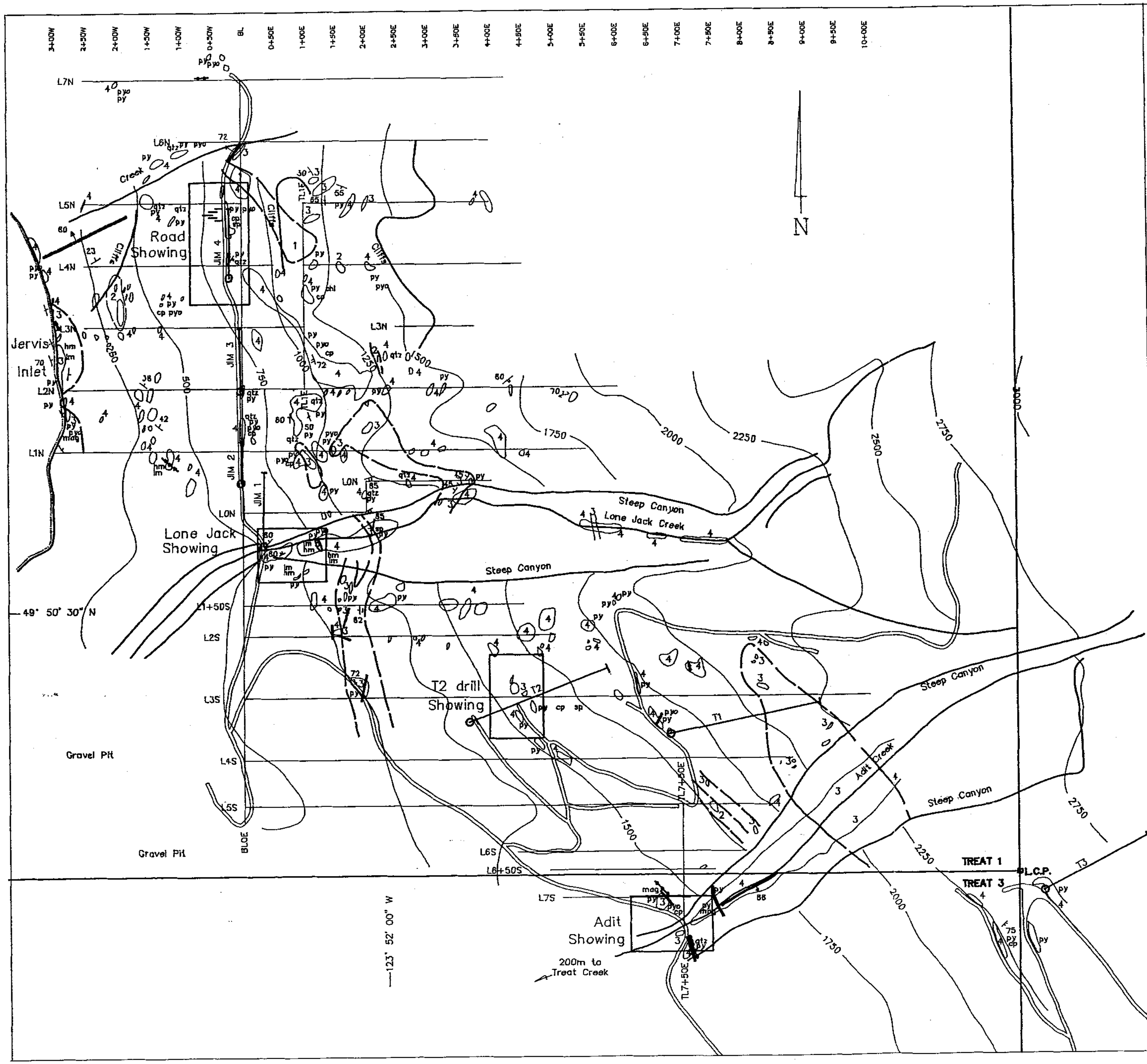
CRETACEOUS VOLCANICS AND SEDIMENTS

1 **AGGLOMERATE AND TUFF BRECCIA** angular to sub-angular granitic and volcanic clasts 1-30 cm., black colour fine grain matrix

2 **CHERT** grey colour, very fine grain texture, 1-10 mm. wide laminations

3 **ARGILLACEOUS SILTSTONE** grey to black colour, thin bedded

4 **ANDESITIC TUFFS AND/OR FLOWS** massive, dark green to black colour, 1-3 mm. subhedral plagioclase phenocrysts, minor aphanitic texture.



LEGEND

TERTIARY AND QUATERNARY INTRUSIONS

- Andesite Dyke
- Quartz Monzonite Dyke

CRETACEOUS VOLCANICS AND SEDIMENTS
(Gambier Group)

- 4 — Andesite Tuffs/Flows trace – 8% diss. & fr. fill. py.
- 3 — Argillaceous Siltstone trace – 3% py.
- 2 — Chert (grey laminated)
- 1 — Agglomerate and Tuff Breccia

ABBREVIATIONS

py	pyrite
cp	chalcopyrite
pyo	pyrrhotite
sp	sphalerite
mo	molybdenite
mag	magnetite
ep	epidote
chl	chlorite
qtz	silicification
ind	induration and/or hornfels
hm	hematite
lm	limonite

SYMBOLS

- Flagged Grid Line (50m Station Spacing).
- Topographical Contour (250 ft. interval).
- Claim Boundary.
- L.C.P. Legal Corner Post.
- Logging Road.
- Creek
- Cliffs — Steep Canyon, Cliffs.
- 1973 Diamond Drillhole Location
- Rock Slide
- Area of Outcrop
- Geological Contact Defined/Assumed
- Bedding (Inclined/Vertical)
- Fracture (Inclined/Vertical)
- Foliation (Inclined/Vertical)
- Fault

Showing — See Detailed Figure

0 50 100 150 200 250
metres

PROFESSIONAL GEOSCIENTIST
PROVINCE OF BRITISH COLUMBIA
A. A. KIKAUKA

Map No: 1

ANTHIAN RESOURCE CORP.

JERVIS PROPERTY
TREAT 1 AND 3 CLAIMS

Vancouver Mining Division N.T.S. 92G/13W

PROPERTY GEOLOGY AND MINERALISATION

ARROWHEAD EXPLORATION SERVICES

DATE: 27 April 1993 | SCALE: 1 : 7500

Drawn By: TONY CLARK CONSULTING

The andesite tuffs/flows (unit 4) form about 80% of the total volume of bedrock within the grid area. Argillaceous siltstone (unit 3) occurs as northwest trending, moderate and steeply dipping, 5-100 meter wide lenses and deformed layers within the massive andesite tuffs/flows. Unit 3 constitutes about 15% of the total volume of bedrock exposed in the grid area. Under the microscope the argillite is relatively uniform with minor variations between layers in grain size, texture, and content of carbonaceous opaque; texture suggest soft sediment deformation. Chert (unit 2) occurs as moderate and steeply dipping, 5-50 meter wide lenses in the northeast and southeast portion of the grid area. Agglomerate/tuff breccia (unit 1) occurs as 25-50 meter wide band in the north end of the grid. 1-5 meter wide quartz monzonite and andesite (hypabyssal) dykes trend northwest and occur along dilatent fractures.

8.2 STRUCTURE

The Cretaceous volcanic and sedimentary sequence (unit 1-4) has been partially deformed by the subsequent intrusion of the Coast Range Plutonic Complex.

The main structural features on the Treat 1 and 3 claims are north to northwest trending, steep to moderate dipping faults, shear zones and fractures occur as a result of the late Coast Range Plutonic Intrusion.

Several northeast trending fractures and shear zones usually cut both cretaceous volcanics and sediments were mapped by the aerial photographs cutting across the regional structural trend nearly at right angles.

Bedding attitude for the most part of the property is northwest, dip 50° to 70° westward whereas in the area north of Lone Jack Creek the argillaceous siltstone Unit 3 dip 40° to 60° eastward. Warps and open folds are observed in the steeply dipping argillaceous siltstone suggesting partial ductile deformation in response to stress from emplacement of the Coast Range Plutonic Complex.

8.3 ALTERATION

Two types of secondary alteration were observed within the grid area:

1) Propylitic-Epidote, chlorite developed as replacement texture
2) Silicification-Quartz developed as replacement texture

Silicification and propylitic alteration occur as 5-200 meter wide lenses and bands localized along the andesite (unit 4)/siltstone (unit 3) contacts. Increased silicification and propylitic alteration are related to sulphide and oxide mineralization.

8.4 MINERALIZATION (Figure 4, 5, 6, 7)

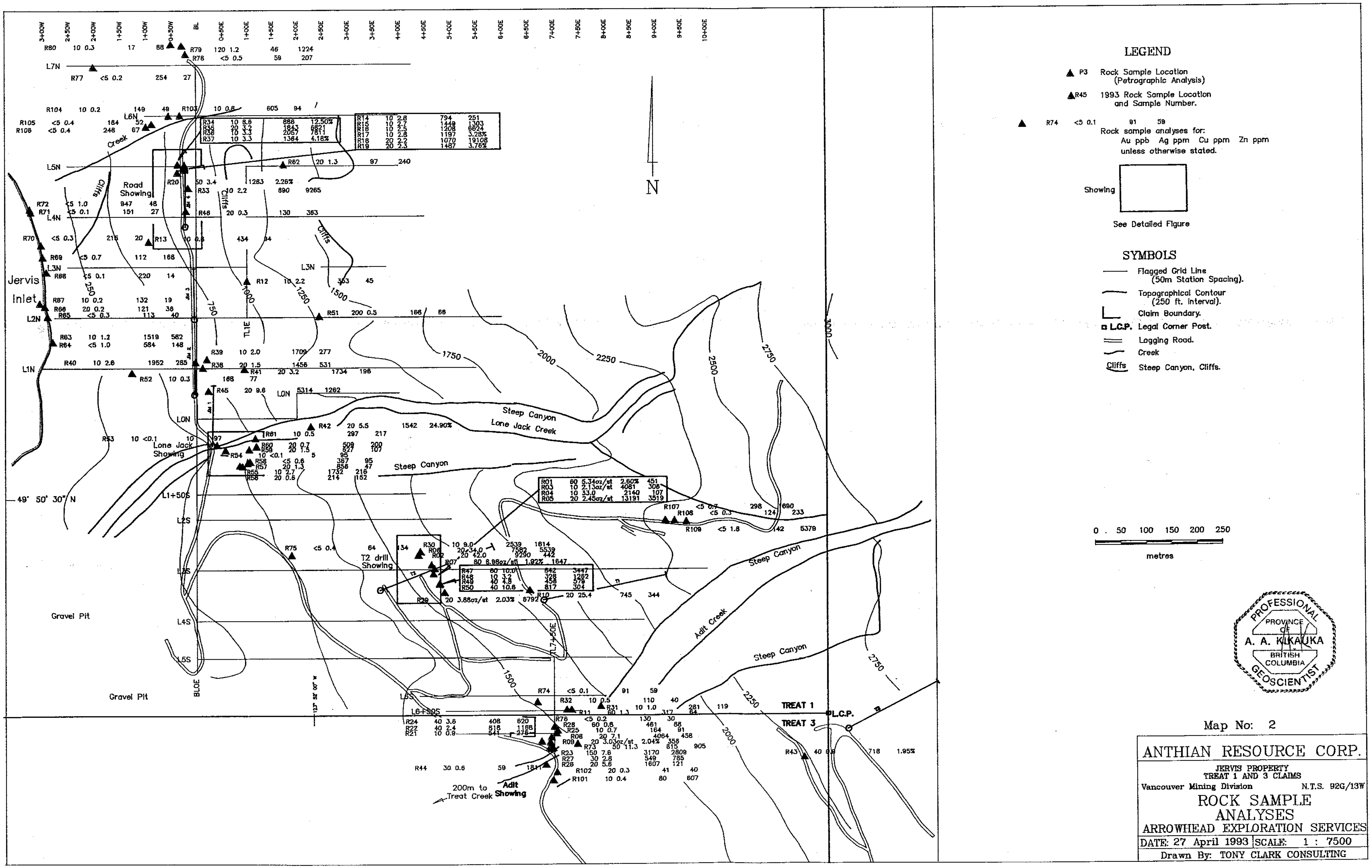
During the 1993 exploration program the writer observed that mineralization and alteration on the Treat 1 and 3 claims are related to either andesite tuff/flow (unit 4) and siltstone (unit 3) contacts or to shear zones.

Three types of mineralization were observed within the grid area:

1) Pyrrhotite-pyrite-magnetite-hematite-chalcopyrite-and/or sphalerite
2) Pyrite-pyrrhotite-chalcopyrite-and/or sphalerite
3) Pyrite-and/or pyrrhotite

Type 1 and 2 occurs as 0.1-14 cm. of massive to semi-massive sulphide lenses that contains significant copper, silver, and zinc values. Showings represent these types of mineralization are the adit showing, T_2 drill target showing and the Lone Jack Creek showing. Type 3 occurs as primary pyrite disseminated as .5-5 mm blebs throughout the country rock within the grid area. The road showing represents this type of mineralization.

Relatively high concentrations of epidote and chlorite alteration


LEGEND
P3 Rock Sample Location (Petrographic Analysis)
R45 1993 Rock Sample Location and Sample Number.
R74 <5 0.1 91 59
Rock sample analyses for: Au ppb Ag ppm Cu ppm Zn ppm unless otherwise stated.
Showing
See Detailed Figure
SYMBOLS
Flagged Grid Line (50m Station Spacing).
Topographical Contour (250 ft. interval).
Claim Boundary.
L.C.P. Legal Corner Post.
Logging Road.
Creek
Cliffs Steep Canyon, Cliffs.
0 50 100 150 200 250
metres
N
Jervis Inlet
Road Showing
Lone Jack Showing
T2 drill Showing
Adit Showing
200m to Treat Creek
Steep Canyon
Lone Jack Creek
Adit Creek
Gravel Pit
TREAT 1
TREAT 3
L.C.P.
49° 50' 30" N
PROFESSIONAL GEOSCIENTIST
PROVINCE OF BRITISH COLUMBIA
A. A. KIKAUKA
Map No: 2
ANTHIAN RESOURCE CORP.
JERVIS PROPERTY
TREAT 1 AND 3 CLAIMS
Vancouver Mining Division
N.T.S. 92G/13W
ROCK SAMPLE ANALYSES
ARROWHEAD EXPLORATION SERVICES
DATE: 27 April 1993
SCALE: 1 : 7500
Drawn By: TONY CLARK CONSULTING

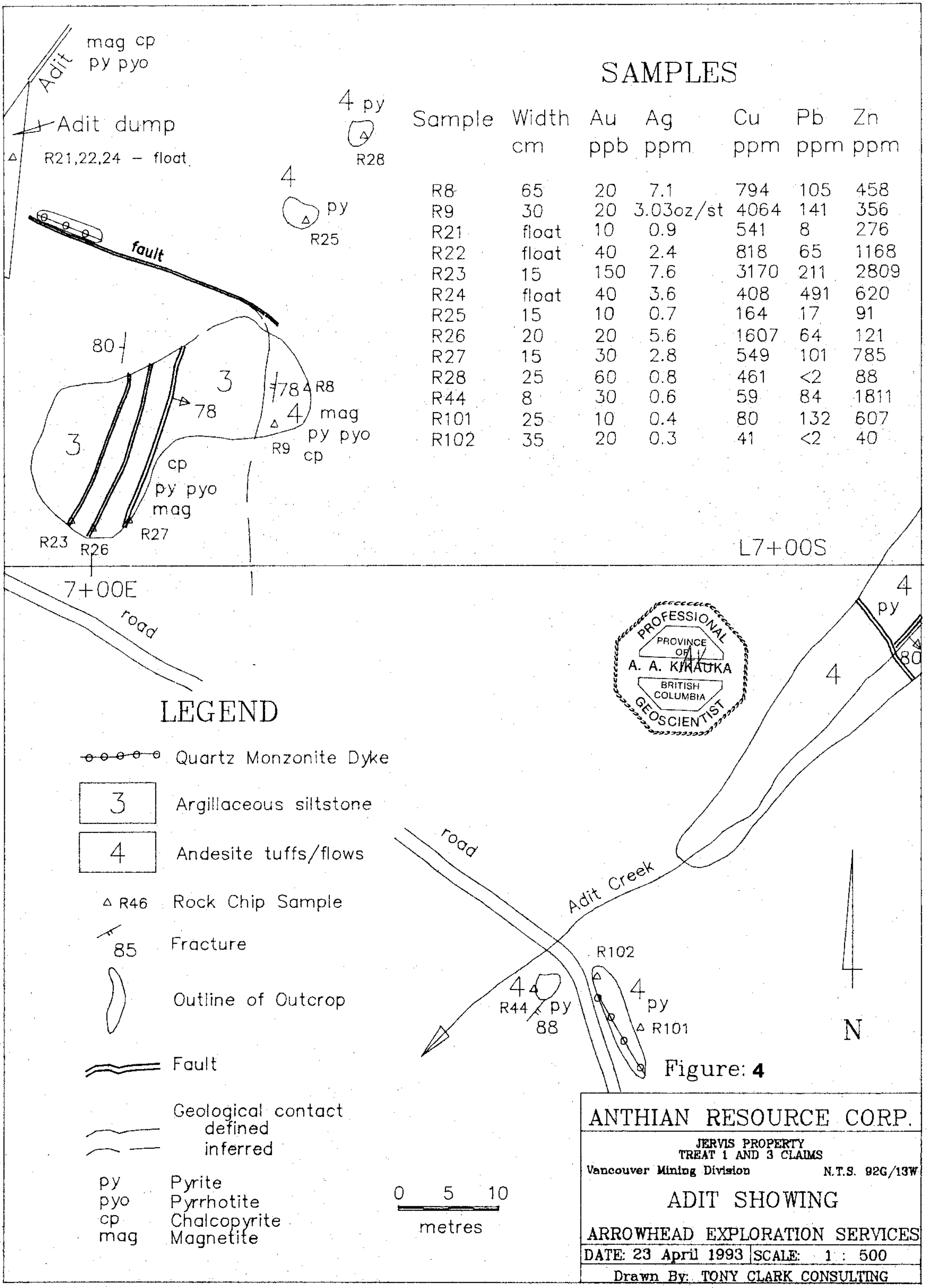
and silicification are associated with type 1 and 2. Mineralization has resulted in intense induration that is localized along andesite tuff and silt stone contacts. These lithological contacts trend northwest. Structurally controlled mineralization dominantly trends northeast and has a steep dip.
Five significant copper and/or zinc bearing sulphide zones were outlined in the grid area:

8.4.1 ADIT CREEK SHOWING (Figure 4) - This showing is located between L 6+00 S- 6+75 E to L 7+00 S- 7+25 E at the southeast corner of the grid area. Magnetite, pyrrhotite, pyrite, chalcopyrite, and sphalerite present as veins and fracture fillings. Seven meters long adit trends 030° was drifted during 1917 in an attempt to intersect a massive magnetite and pyrrhotite mineralization in shear zones. Mineralization is localized in shears near an andesitic tuff/flow/argillaceous siltstone contact.

8.4.2 T1 DRILL TARGET ZONE - Located on L 3+00 S - 7+50 E to 10+00 E. Drill hole T1 intersected 0.2% Cu across 30 feet (at 760'-790'). This zone is largely covered by overburden, but gives a Cu-Zn-Ag soil geochemical response.

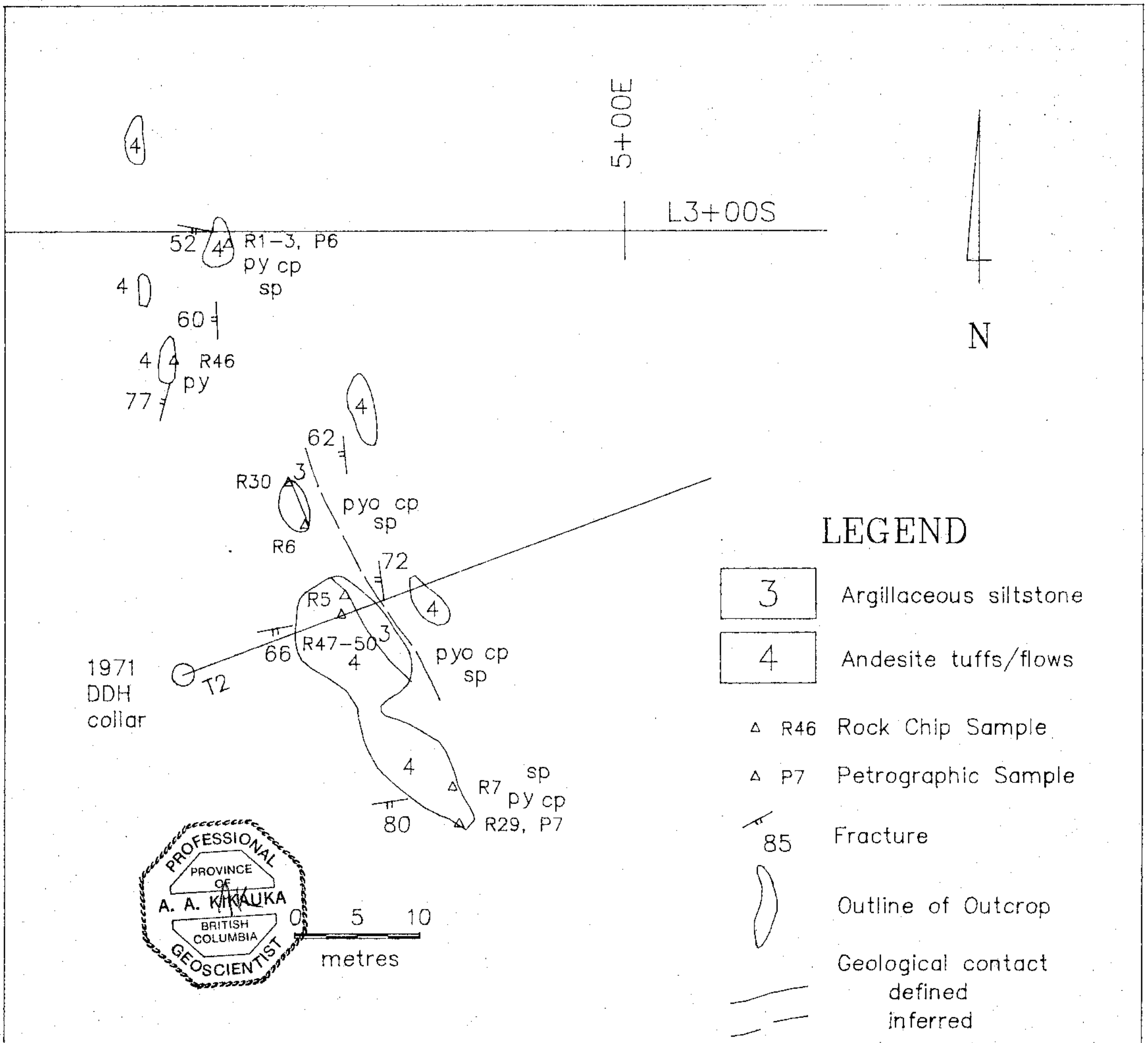
8.4.3 T2 DRILL TARGET ZONE (Figure 5) - Located on L 3+00 S - 4+50 E to L 4+00 S - 5+00 E. Massive pyrrhotite and pyrite with interstitial chalcopyrite and sphalerite occur as veins, fracture fillings, and replacement in a gangue of epidote, chlorite, and quartz. Mineralization is localized near an andesitic tuff/flow (unit 4)/argillaceous siltstone (unit 3) contact. Drill hole T2 intersected scattered streaks of chalcopyrite and sphalerite mineralization in the first 400 feet. Ten feet of 0.16% Cu was the highest recorded assay value.

8.4.4 ROAD SHOWING (Figure 6) - The road showing is located along the main road between L4+50N-BL and L5+15N-BL. Mineralized pyritic volcanic outcrops exposed along the east side of the logging road.



SAMPLES

Sample	Width cm	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
R8	65	20	7.1	794	105	458
R9	30	20	3.03oz/st	4064	141	356
R21	float	10	0.9	541	8	276
R22	float	40	2.4	818	65	1168
R23	15	150	7.6	3170	211	2809
R24	float	40	3.6	408	491	620
R25	15	10	0.7	164	17	91
R26	20	20	5.6	1607	64	121
R27	15	30	2.8	549	101	785
R28	25	60	0.8	461	<2	88
R44	8	30	0.6	59	84	1811
R101	25	10	0.4	80	132	607
R102	35	20	0.3	41	<2	40



SAMPLES

Sample	Width cm	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
R1	8	60	5.34oz/st	2.60%	117	451
R2	100	20	42	9290	23	442
R3	100	10	2.13oz/st	4081	37	306
R4	22	10	33.0	2140	44	107
R5	95	20	2.45oz/st	13191	2199	3519
R6	28	20	34.0	7582	915	5539
R7	80	80	9.98oz/st	1.92%	416	1647
R29	15	20	3.88oz/st	2.03%	45	6792
R30	15	10	9.0	130	75	1614
R47	100	60	10.0	842	509	3447
R48	100	10	3.2	328	253	1262
R49	100	40	4.8	456	37	579
R50	100	40	10.6	817	307	304

py Pyrite
pyo Pyrrhotite
cp Chalcopyrite
sp Sphalerite

Figure: 5

ANTHIAN RESOURCE CORP.

JERVIS PROPERTY
TREAT 1 AND 3 CLAIMS

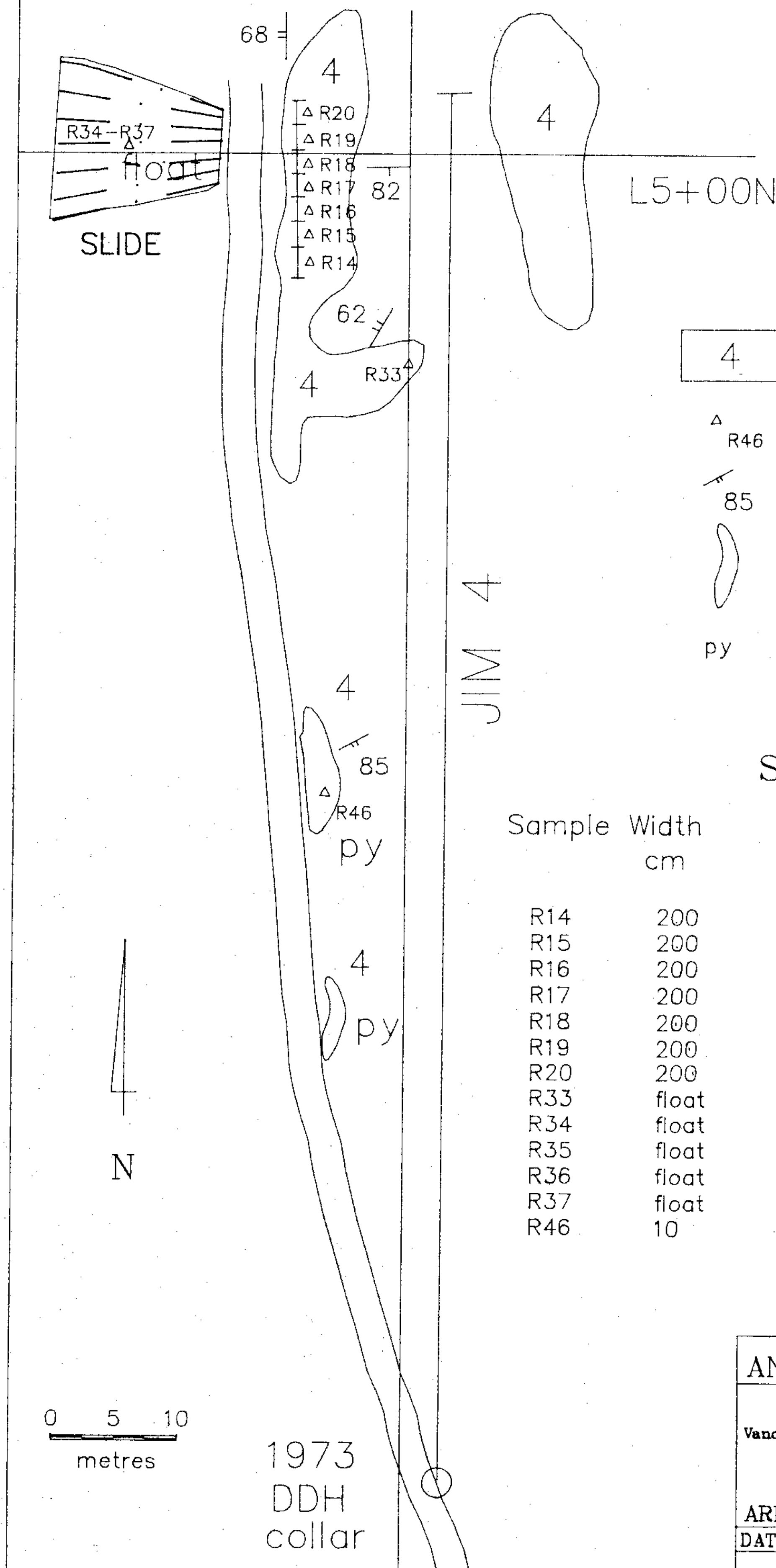
Vancouver Mining Division N.T.S. 92G/13W

T2 DRILL TARGET SHOWING

ARROWHEAD EXPLORATION SERVICES

DATE: 23 April 1993 SCALE: 1 : 500

Drawn By: TONY CLARK CONSULTING



PROFESSIONAL GEOSCIENTIST
PROVINCE OF BRITISH COLUMBIA
A. A. KIKAUKA

LEGEND

4	Andesite tuffs/flows
△ R46	Rock Chip Sample
85	Fracture
	Outline of Outcrop
py	Pyrite

SAMPLES

Sample	Width cm	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
R14	200	10	2.8	794	<2	251
R15	200	10	2.7	1449	24	1303
R16	200	10	2.5	1208	<2	6624
R17	200	10	2.8	1197	<2	3.28%
R18	200	20	2.2	1070	3	19108
R19	200	20	2.3	1487	13	3.76%
R20	200	50	3.4	1283	83	2.26%
R33	float	10	2.2	890	<2	9265
R34	float	10	8.6	886	59	12.50%
R35	float	20	3.2	1843	45	6821
R36	float	10	3.3	2057	23	7811
R37	float	10	3.3	1364	29	4.18%
R46	10	20	0.3	130	<2	363

Figure: **6**

ANTHIAN RESOURCE CORP.

JERVIS PROPERTY
TREAT 1 AND 3 CLAIMS
Vancouver Mining Division N.T.S. 92G/13W

ROAD SHOWING
BL 5+00N

ARROWHEAD EXPLORATION SERVICES

DATE: 22 April 1993 SCALE: 1 : 500

Drawn By: TONY CLARK CONSULTING

Mineralization consists of 15 to 20% fine to medium grained, disseminated pyrite, minor chalcopyrite in light grey to green, rusty in parts andesitic tuff with limonite hematite and fine grained quartz in cavities.

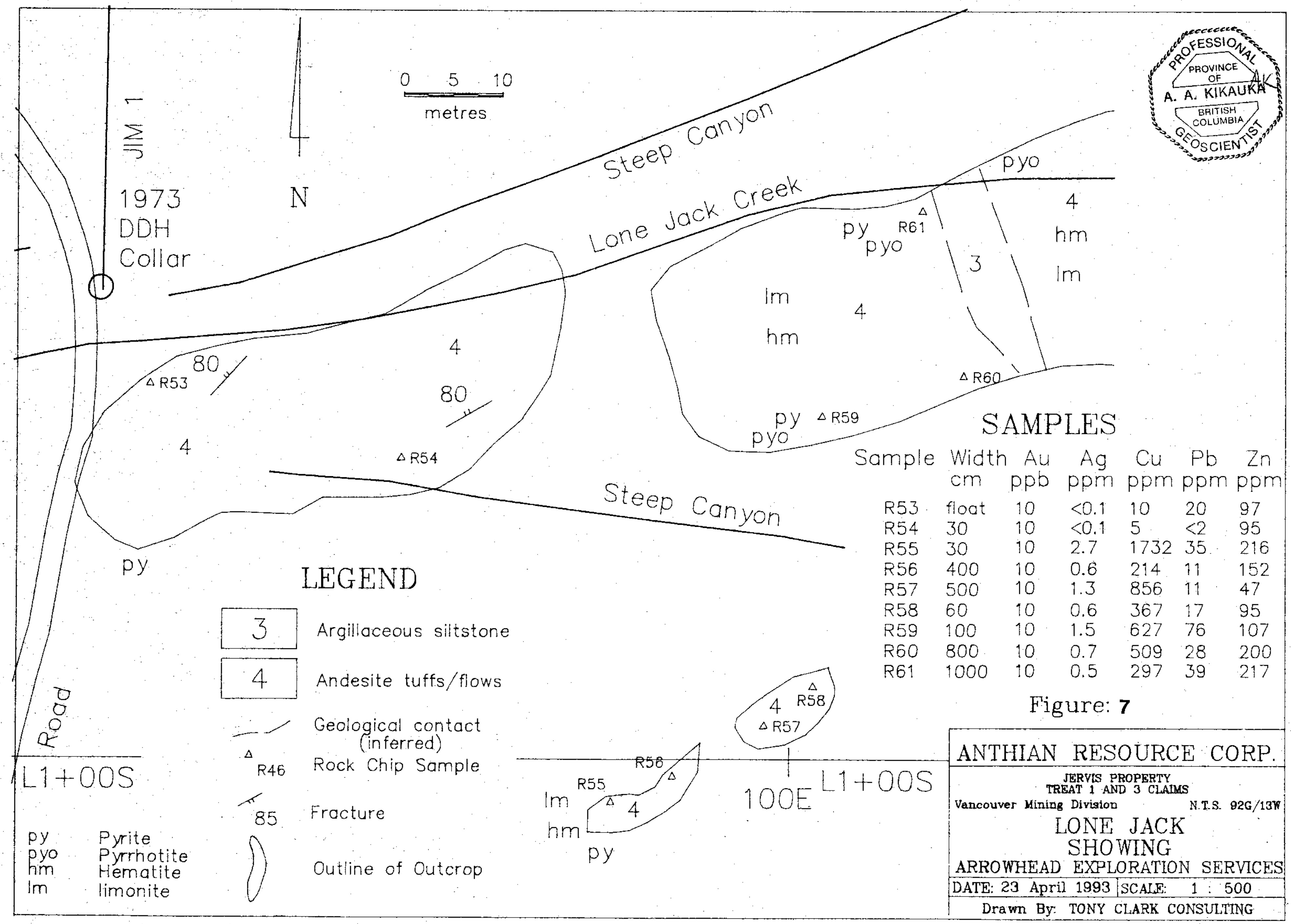
The aerial photo interpretation suggests that the road showing occurs near the southern end of a fold axis and a suspected northwest trending fault probably inconspicuous on the ground.

8.4.5 LONE JACK CREEK SHOWING (Figure 7) - This showing is located on the south bank of Lone Jack Creek. It can be reached from the main logging road just south of the Creek crossing about 60 meters above the road. A rusty gossan small outcrops of altered volcanic tuff are exposed within an area of 50 meters and crossing Lone Jack Creek just above a waterfall. Mineralization consists of magnetite, pyrrhotite with minor pyrite and chalcopyrite disseminated as .3-.5mm in medium to light grey dacitic-andesitic tuff or flow in contact with argillaceous siltstone. Mineralization is fracture controlled and fills tension cracks and joints. Similar mineralization hosted by rusty hematitic volcanic tuffs located on L2+00N between 2+00E and 3+50E. This zone may be related to the nearby Lone Jack Creek showing.

8.5 AERIAL PHOTO INTERPRETATION (MAP 3)

Geological photo interpretation was performed at a scale of 1:15,000 over an area of approximately 4.5 square kilometres by Dr. Richard E. Kucera. The purpose of this study was to describe the results of photo interpretation of Jervis Inlet property and to add more geological and structural information to the area.

Steep slopes and thick forest prevented the tracing of contacts between the argillite sediments and volcanic tuffs, but the detailed aerial photo interpretation of the property has extended the geologic contacts determined in the field.



SAMPLES

Sample	Width cm	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
R53	float	10	<0.1	10	20	97
R54	30	10	<0.1	5	<2	95
R55	30	10	2.7	1732	35	216
R56	400	10	0.6	214	11	152
R57	500	10	1.3	856	11	47
R58	60	10	0.6	367	17	95
R59	100	10	1.5	627	76	107
R60	800	10	0.7	509	28	200
R61	1000	10	0.5	297	39	217

Figure: 7

ANTHIAN RESOURCE CORP.

JERVIS PROPERTY
TREAT 1 AND 3 CLAIMS

Vancouver Mining Division N.T.S. 92G/13W

LONE JACK SHOWING

ARROWHEAD EXPLORATION SERVICES

DATE: 23 April 1993 SCALE: 1 : 500

Drawn By: TONY CLARK CONSULTING

Detailed mapping on the aerial photographs shows the presence of several northeast and northwest trending fractures, many of which are not recognizable on the ground. The lower end of Lone Jack Creek and tributary of Treat Creek reflects distinct structural control.

The aerial photo also recognizes the presence of six distinct northeast trending faults cut across the main structural trend.

The 1993 field observations indicated a strong relation between mineralization and argillite volcanic tuff contacts. Inspection of aerial photographs indicates that some of the mineralization is related to structural control. The close proximity of the Lone Jack Creek and the Adit Creek showings to northeast trending faults suggests a strong possibility of structurally controlled mineralization. The mineralized gossan zone located on the road north of Lone Jack Creek lies adjacent to a fold axis as well as a suspected northwest trending fault.

8.6 GEOCHEMICAL SOIL SURVEY (Figure 8, 9, 10, 11, 12, 13 & 14) Correlation coefficients, histograms and symbol maps have been prepared and used in the evaluation of soil sample analysis collected from the grid area of the Treat 1 and 3 mineral claims.

Correlation coefficients were calculated for gold, silver, copper, lead, zinc and arsenic to define useful groupings of the data values. Correlations were considered to be significant for coefficient values equal to or above 0.25, with the following being the terminology used for both the positive and the negative correlation:

0.25 to < 0.30	very weak correlation
0.30 to < 0.40	weak correlation
0.40 to < 0.60	moderate correlation
0.60 to < 0.80	strong correlation
0.80 to 1.00	very strong correlation

Histograms were plotted of all elements considered of exploration significance. Ranges used for the symbols on the symbol maps were chosen to show any groupings that are indicated in the data by discordant changes in the shape of the curve at the higher values of the histograms.

8.6.1 GOLD IN SOILS (Figure 8)

Most gold values fall below 50 ppb, however, there is a slight secondary grouping at about 60 to 90 ppb. A symbol and value map was plotted with the following value ranges:

30 to < 50 ppb	low anomalous
50 to < 100 ppb	medium anomalous
100 + ppb	high anomalous

Gold shows no correlation with any other element.

8.6.2 SILVER IN SOILS (Figure 9)

Most silver values are distributed between 0 and 3.5 ppm. There is no indication of any highly anomalous values. A symbol and value map was plotted with the following value ranges:

1 to < 2 ppm	low anomalous
2 to < 4 ppm	medium anomalous
4 + ppm	high anomalous

Silver has a moderate correlation with copper, molybdenum and lead.

8.6.3 COPPER IN SOILS (Figure 10)

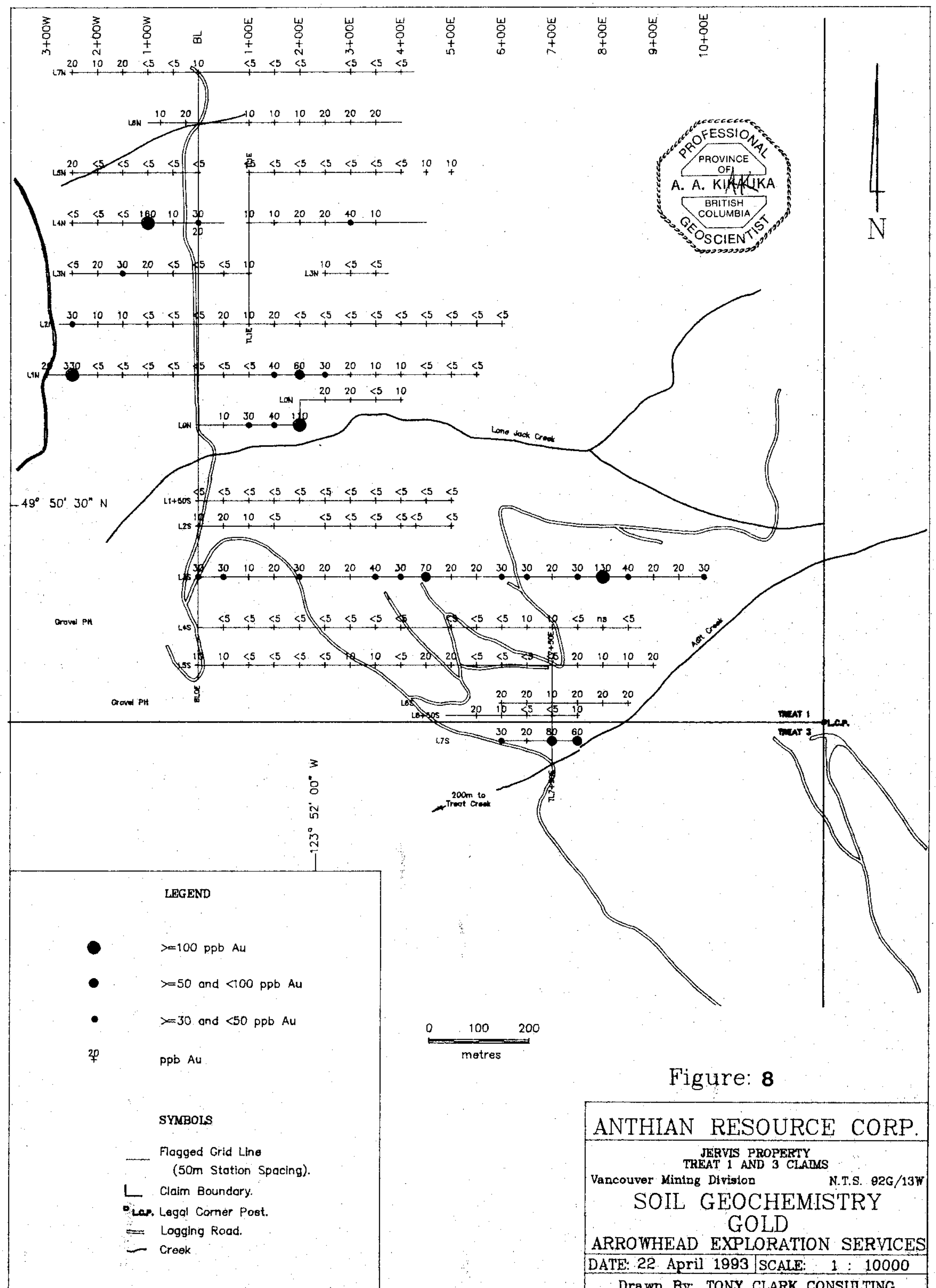
Copper values ranged up to 2283 ppm. A symbol and value map was plotted using the following value ranges:

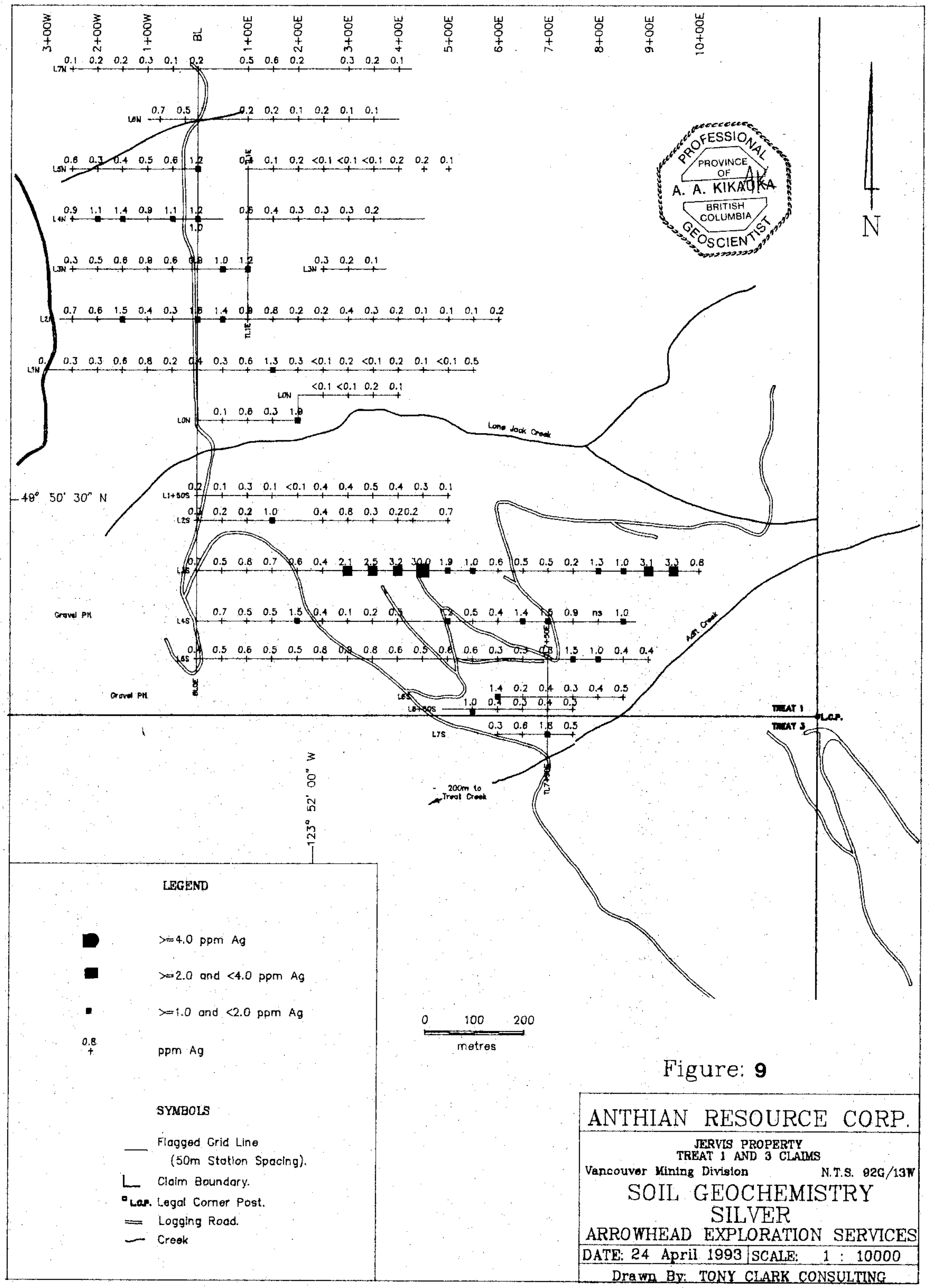
500 to < 1000 ppm	low anomalous
1000 to < 1500 ppm	medium anomalous
1500 + ppm	high anomalous

Copper has a strong correlation with molybdenum, moderate correlation with lead and very weak correlation with zinc.

8.6.4 LEAD IN SOILS (Figure 11)

Lead values form an approximately log-normal up to about 140 ppm with higher values distributed up to 274 ppm forming a possible


3+00W
2+00W
1+00W
BL
1+00E
2+00E
3+00E
4+00E
5+00E
6+00E
7+00E
8+00E
9+00E
10+00E
L7N
L6N
L5N
L4N
L3N
L2N
L1N
L0N
L1+50S
L2S
L3S
L4S
L5S
L6S
L6+50S
L7S
TL1E
BLOE
TL7+50E
Lone Jack Creek
Adit Creek
200m to Treat Creek
Gravel Pit
Gravel Pit
49° 50' 30" N
123° 52' 00" W
TREAT 1
TREAT 3
L.C.P.
N
PROFESSIONAL
PROVINCE OF
A. A. KIKAUKA
BRITISH COLUMBIA
GEOSCIENTIST
LEGEND
>=100 ppb Au
>=50 and <100 ppb Au
>=30 and <50 ppb Au
ppb Au
SYMBOLS
Flagged Grid Line (50m Station Spacing).
Claim Boundary.
Legal Corner Post.
Logging Road.
Creek
0 100 200
metres
Figure: 8
ANTHIAN RESOURCE CORP.
JERVIS PROPERTY
TREAT 1 AND 3 CLAIMS
Vancouver Mining Division
N.T.S. 92G/13W
SOIL GEOCHEMISTRY
GOLD
ARROWHEAD EXPLORATION SERVICES
DATE: 22 April 1993
SCALE: 1 : 10000
Drawn By: TONY CLARK CONSULTING



3+00W 2+00W 1+00W BL 1+00E 2+00E 3+00E 4+00E 5+00E 6+00E 7+00E 8+00E 9+00E 10+00E
L7N 0.1 0.2 0.2 0.3 0.1 0.2 0.5 0.6 0.2 0.3 0.2 0.1
L6N 0.7 0.5 0.2 0.2 0.1 0.2 0.1 0.1
L5N 0.6 0.3 0.4 0.5 0.6 1.2 0.4 0.1 0.2 <0.1 <0.1 <0.1 0.2 0.2 0.1
L4N 0.9 1.1 1.4 0.9 1.1 1.2 1.0 0.6 0.4 0.3 0.3 0.3 0.2
L3N 0.3 0.5 0.6 0.8 0.6 0.8 1.0 1.2 0.3 0.2 0.1
L2N 0.7 0.6 1.5 0.4 0.3 1.6 1.4 0.9 0.8 0.2 0.2 0.4 0.3 0.2 0.1 0.1 0.1 0.2
L1N 0.3 0.3 0.6 0.8 0.2 0.4 0.3 0.6 1.3 0.3 <0.1 0.2 <0.1 0.2 0.1 <0.1 0.5
L0N <0.1 <0.1 0.2 0.1
L0N 0.1 0.6 0.3 1.9
TL1E
Lone Jack Creek
49° 50' 30" N
L1+50S 0.2 0.1 0.3 0.1 <0.1 0.4 0.4 0.5 0.4 0.3 0.1
L2S 0.3 0.2 0.2 1.0 0.4 0.8 0.3 0.20.2 0.7
L3S 0.7 0.5 0.8 0.7 0.6 0.4 2.1 2.5 3.2 30.0 1.9 1.0 0.6 0.5 0.5 0.2 1.3 1.0 3.1 3.3 0.8
Gravel Pit
L4S 0.7 0.5 0.5 1.5 0.4 0.1 0.2 0.5 1.2 0.5 0.4 1.4 1.5 0.9 ns 1.0
L5S 0.4 0.5 0.6 0.5 0.5 0.8 0.9 0.8 0.6 0.5 0.8 0.6 0.3 0.3 0.8 1.5 1.0 0.4 0.4
Adit Creek
Gravel Pit
BL0E
L6S 1.4 0.2 0.4 0.3 0.4 0.5
L6+50S 1.0 0.4 0.3 0.4 0.3
L7S 0.3 0.6 1.8 0.5
TL7+50E
TREAT 1
TREAT 3
L.C.P.
123° 52' 00" W
200m to Treat Creek
PROFESSIONAL
PROVINCE OF
A. A. KIKAUKA
BRITISH COLUMBIA
GEOSCIENTIST
N
LEGEND
>=4.0 ppm Ag
>=2.0 and <4.0 ppm Ag
>=1.0 and <2.0 ppm Ag
0.8 ppm Ag
SYMBOLS
Flagged Grid Line (50m Station Spacing).
Claim Boundary.
L.C.P. Legal Corner Post.
Logging Road.
Creek
0 100 200 metres
ANTHIAN RESOURCE CORP.
JERVIS PROPERTY
TREAT 1 AND 3 CLAIMS
Vancouver Mining Division
N.T.S. 92G/13W
SOIL GEOCHEMISTRY
SILVER
ARROWHEAD EXPLORATION SERVICES
DATE: 24 April 1993
SCALE: 1 : 10000
Drawn By: TONY CLARK CONSULTING

Figure: 9

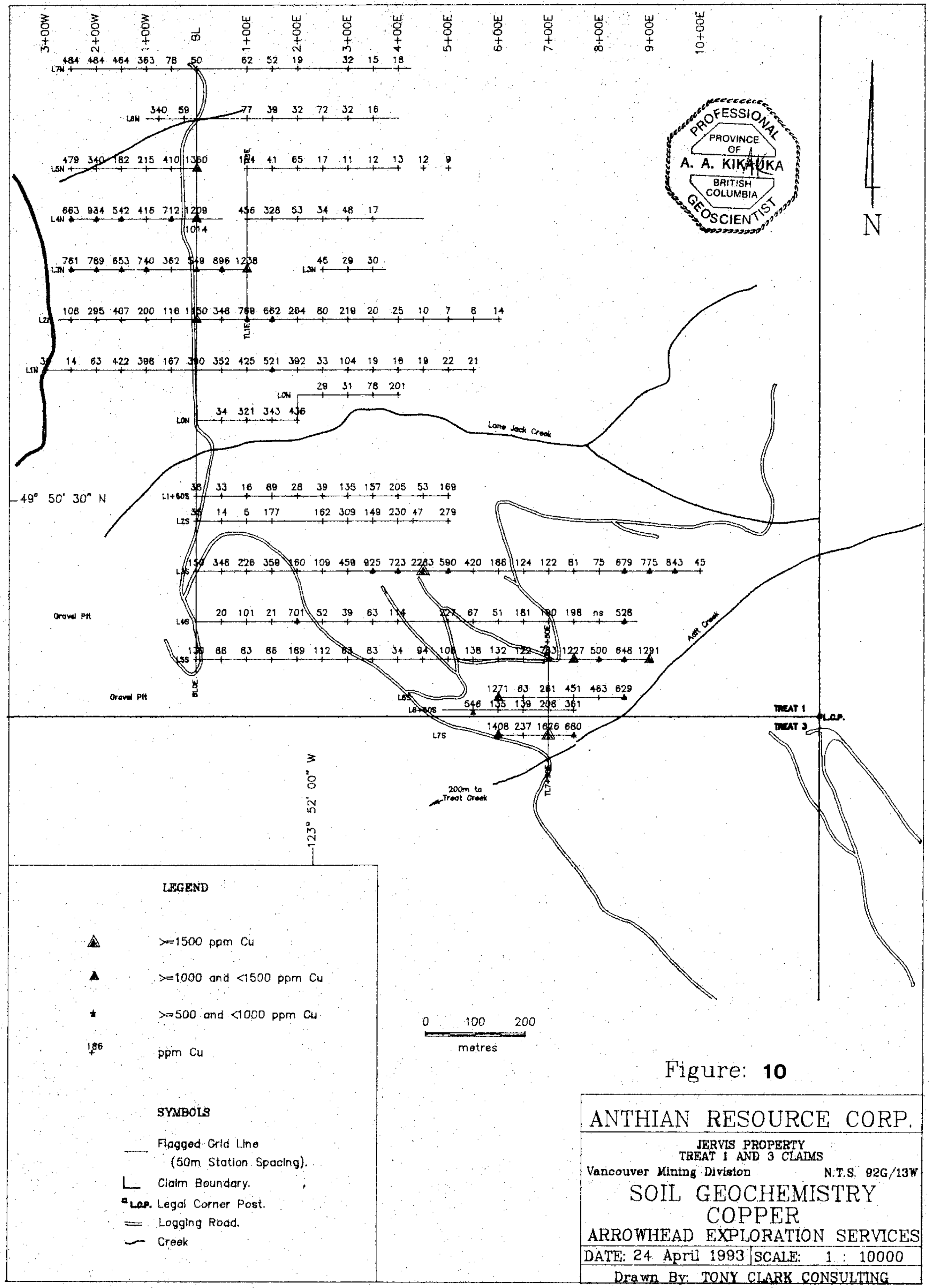

3+00W
2+00W
1+00W
BL
1+00E
2+00E
3+00E
4+00E
5+00E
6+00E
7+00E
8+00E
9+00E
10+00E
L7N
L6N
L5N
L4N
L3N
L2N
L1N
L0N
TL1E
Lone Jack Creek
49° 50' 30" N
Gravel Pit
Gravel Pit
BLOE
Adit Creek
TREAT 1
TREAT 3
L.C.P.
200m to Treat Creek
123° 52' 00" W
N
LEGEND
>=1500 ppm Cu
>=1000 and <1500 ppm Cu
>=500 and <1000 ppm Cu
ppm Cu
SYMBOLS
Flagged Grid Line (50m Station Spacing).
Claim Boundary.
L.C.P. Legal Corner Post.
Logging Road.
Creek
0 100 200
metres
PROFESSIONAL
PROVINCE OF
A. A. KIKAUKA
BRITISH COLUMBIA
GEOSCIENTIST
ANTHIAN RESOURCE CORP.
JERVIS PROPERTY
TREAT 1 AND 3 CLAIMS
Vancouver Mining Division
N.T.S. 92G/13W
SOIL GEOCHEMISTRY
COPPER
ARROWHEAD EXPLORATION SERVICES
DATE: 24 April 1993
SCALE: 1 : 10000
Drawn By: TONY CLARK CONSULTING

Figure: **10**

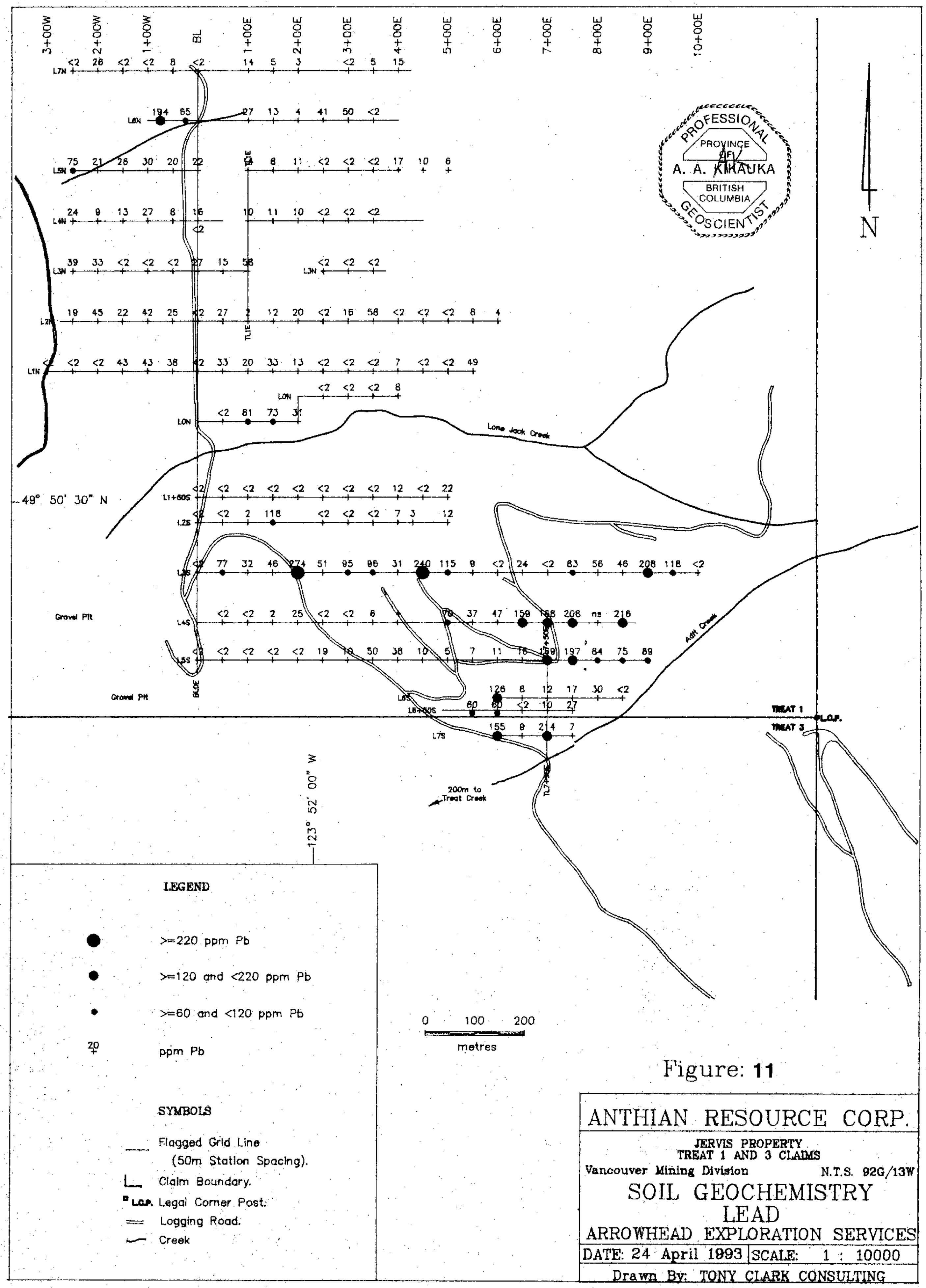

3+00W
2+00W
1+00W
BL
1+00E
2+00E
3+00E
4+00E
5+00E
6+00E
7+00E
8+00E
9+00E
10+00E
L7N
L6N
L5N
L4N
L3N
L2N
L1N
L0N
L1+50S
L2S
L3S
L4S
L5S
L6S
L6+50S
L7S
Lone Jack Creek
Adit Creek
Gravel Pit
49° 50' 30" N
123° 52' 00" W
200m to Treat Creek
TREAT 1
TREAT 3
L.C.P.
N
PROFESSIONAL GEOSCIENTIST
PROVINCE OF BRITISH COLUMBIA
A. A. KIKAUKA
LEGEND
>=220 ppm Pb
>=120 and <220 ppm Pb
>=60 and <120 ppm Pb
ppm Pb
SYMBOLS
Flagged Grid Line (50m Station Spacing).
Claim Boundary.
L.C.P. Legal Corner Post.
Logging Road.
Creek
0 100 200
metres
ANTHIAN RESOURCE CORP.
JERVIS PROPERTY
TREAT 1 AND 3 CLAIMS
Vancouver Mining Division
N.T.S. 92G/13W
SOIL GEOCHEMISTRY
LEAD
ARROWHEAD EXPLORATION SERVICES
DATE: 24 April 1993
SCALE: 1 : 10000
Drawn By: TONY CLARK CONSULTING

Figure: **11**

second population. A symbol and value map was plotted using the following value ranges:

60 to < 120 ppm	low anomalous
120 to < 220 ppm	medium anomalous
220 + ppm	high anomalous

Lead shows moderate correlation with silver and copper.

8.6.5 **ZINC IN SOILS** (Figure 12)

Zinc values produce a slightly irregular log-normal curve up to about 2432 ppm. These values were plotted on a symbol map using the following value ranges:

700 to < 1400 ppm	low anomalous
1400 to < 1700 ppm	medium anomalous
1700 + ppm	high anomalous

Zinc has a very weak correlation with copper.

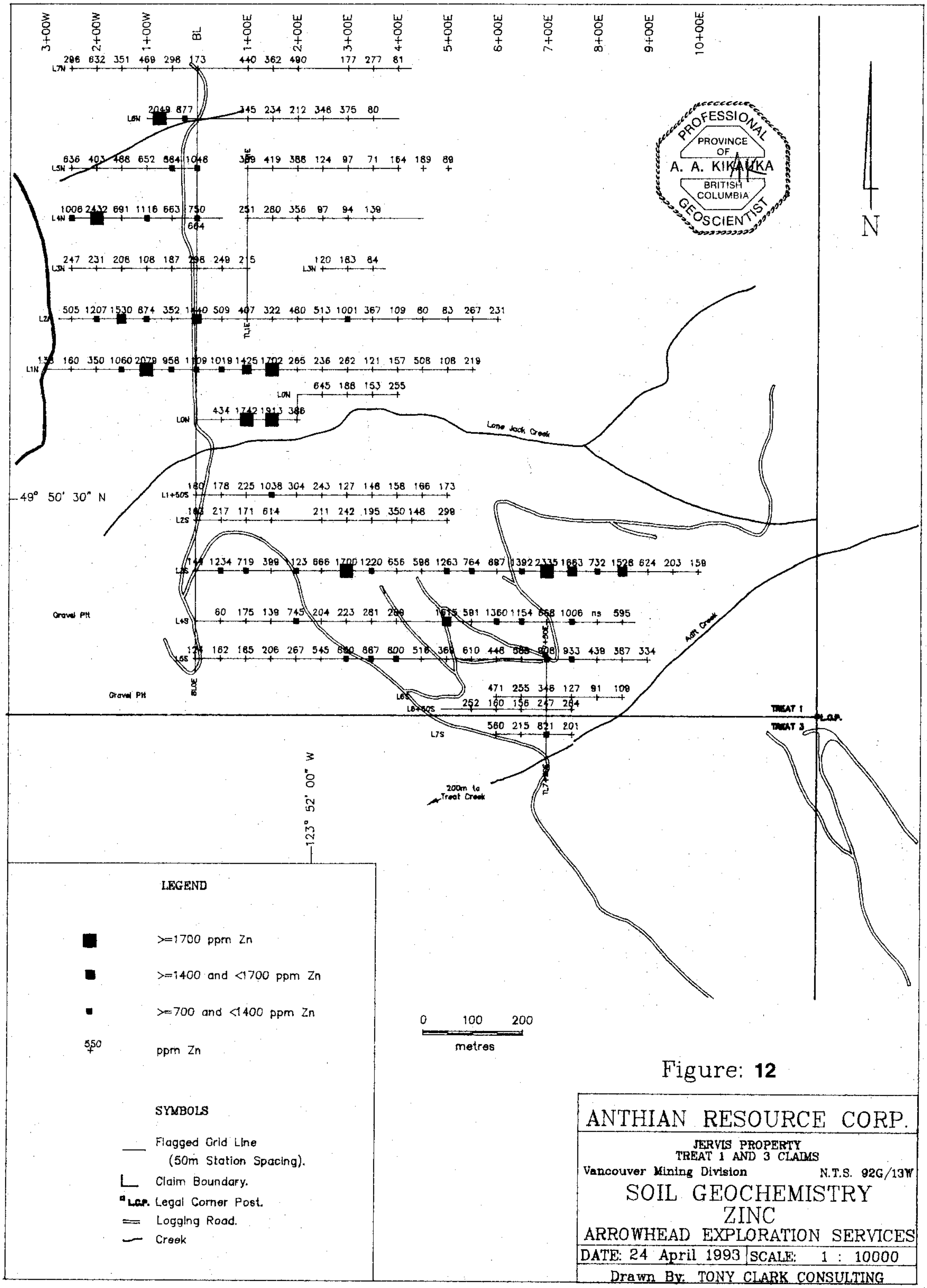
8.6.6 **ARSENIC IN SOILS** (Figure 13)

Arsenic values ranged up to the 1564 ppm. All values equal to or greater than 200 ppm were considered anomalous.

Arsenic shows no correlation with any other element.

8.7 **DISCUSSION OF SOIL RESULTS** (Figure 14)

Correlation coefficients, histograms and symbol maps indicate that there is no distinctive association of elements apart from the correlation of copper and molybdenum. Generally gold, silver and arsenic do not associate with one another.


3+00W
2+00W
1+00W
BL
1+00E
2+00E
3+00E
4+00E
5+00E
6+00E
7+00E
8+00E
9+00E
10+00E
L7N
L6N
L5N
L4N
L3N
L2N
L1N
L0N
L1+50S
L2S
L3S
L4S
L5S
L6S
L6+50S
L7S
Lone Jack Creek
Adit Creek
Gravel Pit
Gravel Pit
49° 50' 30" N
123° 52' 00" W
200m to Treat Creek
TREAT 1
TREAT 3
L.C.P.
PROFESSIONAL
PROVINCE OF
A. A. KIKAUKA
BRITISH COLUMBIA
GEOSCIENTIST
N
0 100 200
metres
LEGEND
>=1700 ppm Zn
>=1400 and <1700 ppm Zn
>=700 and <1400 ppm Zn
550 ppm Zn
SYMBOLS
Flagged Grid Line (50m Station Spacing).
Claim Boundary.
L.C.P. Legal Corner Post.
Logging Road.
Creek
Figure: 12
ANTHIAN RESOURCE CORP.
JERVIS PROPERTY
TREAT 1 AND 3 CLAIMS
Vancouver Mining Division
N.T.S. 92G/13W
SOIL GEOCHEMISTRY
ZINC
ARROWHEAD EXPLORATION SERVICES
DATE: 24 April 1993
SCALE: 1 : 10000
Drawn By: TONY CLARK CONSULTING

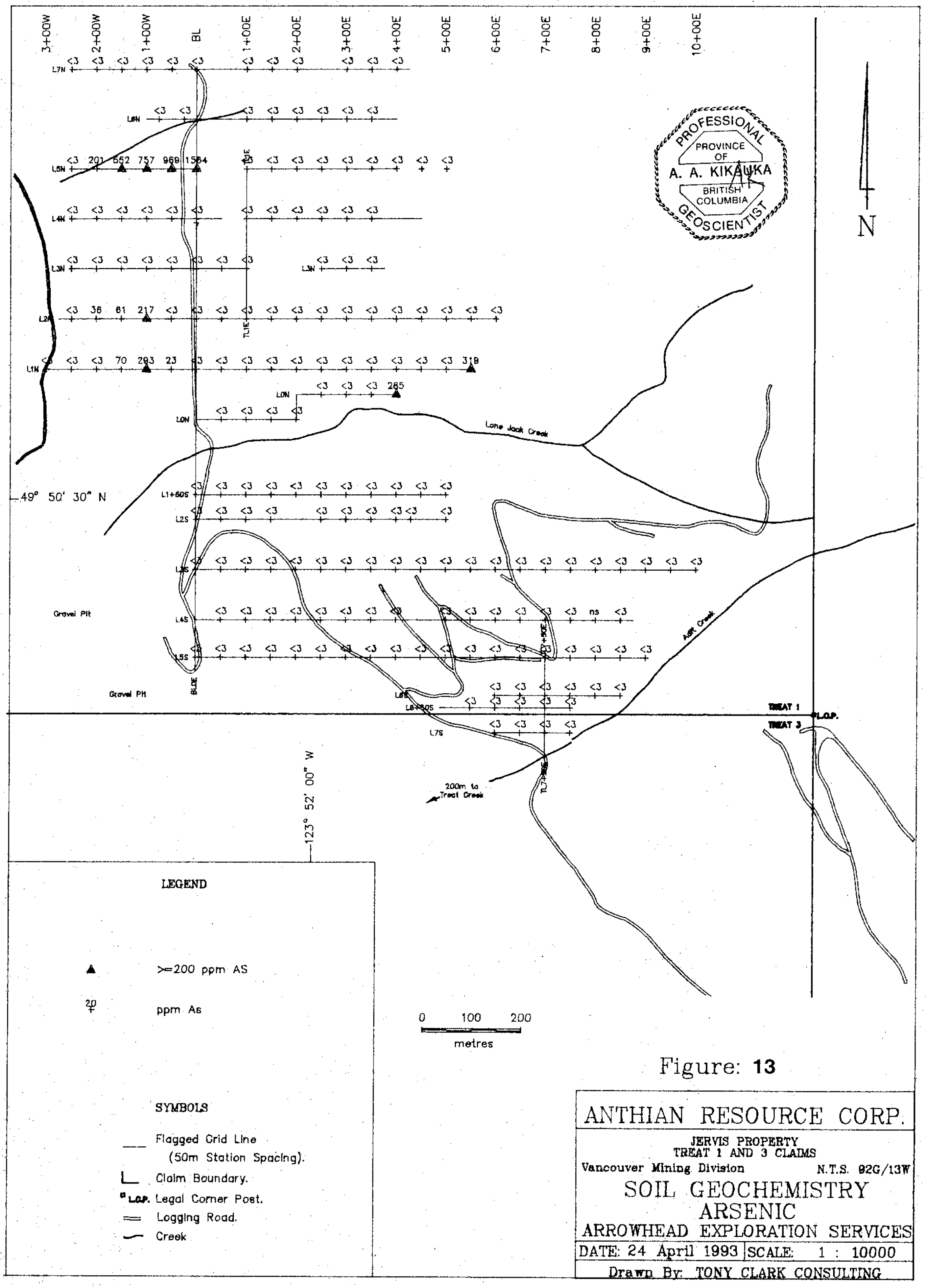

3+00W
2+00W
1+00W
BL
1+00E
2+00E
3+00E
4+00E
5+00E
6+00E
7+00E
8+00E
9+00E
10+00E
L7N
L6N
L5N
L4N
L3N
L2N
L1N
L0N
L1+50S
L2S
L3S
L4S
L5S
L6+50S
L7S
Lone Jack Creek
Ash Creek
Gravel Pit
Gravel Pit
49° 50' 30" N
123° 52' 00" W
200m to Treat Creek
TREAT 1
TREAT 3
L.C.P.
N
PROFESSIONAL
PROVINCE OF
A. A. KIKAUKA
BRITISH COLUMBIA
GEOSCIENTIST
LEGEND
>=200 ppm AS
ppm As
0 100 200
metres
SYMBOLS
Flagged Grid Line (50m Station Spacing).
Claim Boundary.
L.C.P. Legal Corner Post.
Logging Road.
Creek
ANTHIAN RESOURCE CORP.
JERVIS PROPERTY
TREAT 1 AND 3 CLAIMS
Vancouver Mining Division
N.T.S. 92G/13W
SOIL GEOCHEMISTRY
ARSENIC
ARROWHEAD EXPLORATION SERVICES
DATE: 24 April 1993
SCALE: 1 : 10000
Drawn By: TONY CLARK CONSULTING

Figure: **13**

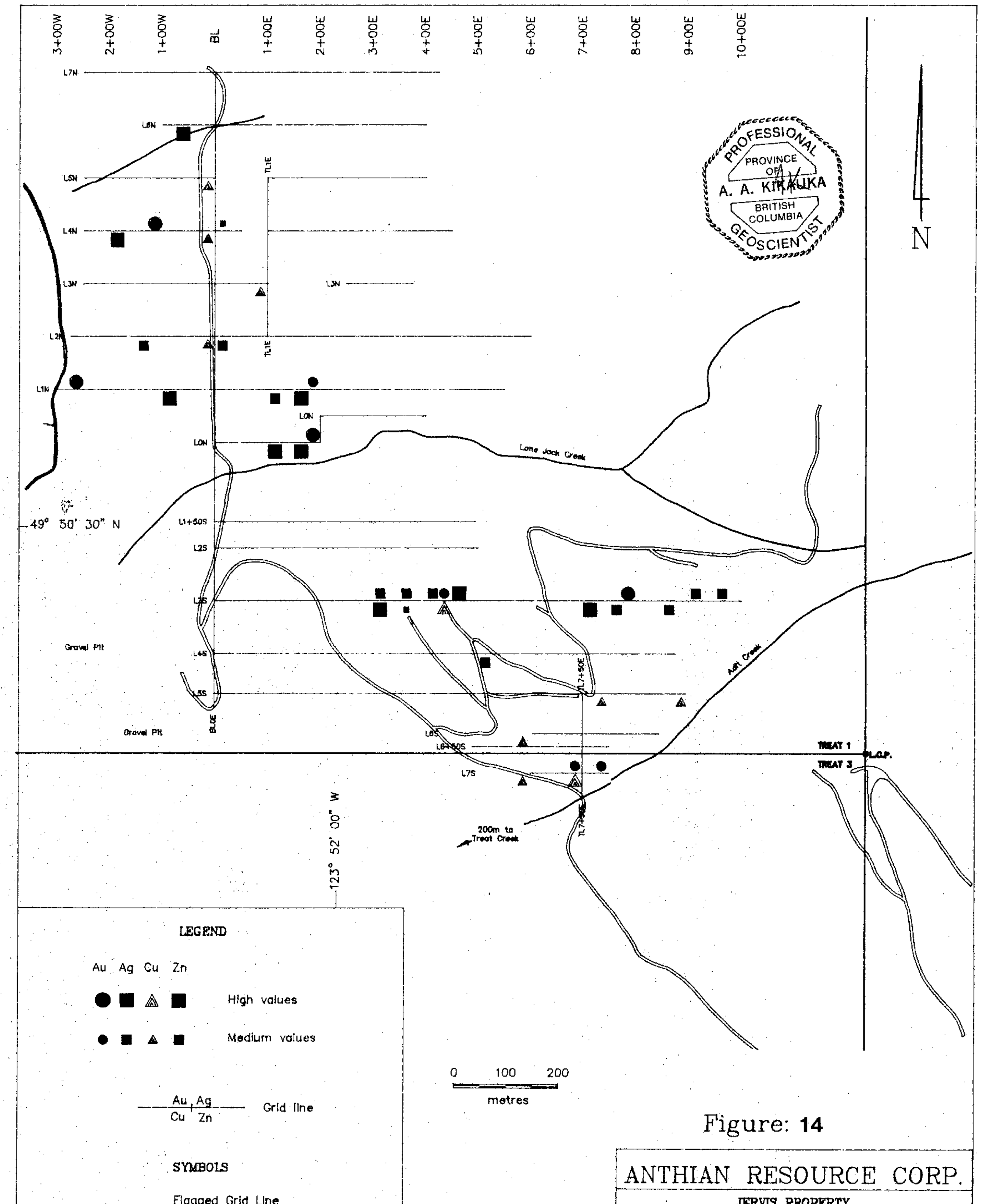


Figure: **14**

ANTHIAN RESOURCE CORP.

JERVIS PROPERTY
TREAT 1 AND 3 CLAIMS
Vancouver Mining Division N.T.S. 92G/13W

SOIL GEOCHEMISTRY COMPILATION

ARROWHEAD EXPLORATION SERVICES

DATE: 24 April 1993 SCALE: 1 : 10000

Drawn By: TONY CLARK CONSULTING

The areal distribution of the higher values indicates two areas of interest:

The first area is in the general vicinity of L0N BL-2+00E and L1N BL-2+00E. There is moderate to high gold in soils and high zinc in soils. This area represents the Lone Jack Creek showing.

The second area is in the vicinity of L3+00S-700E to 100E where a high gold, silver and zinc soil samples occur.

The other high and medium soil analysis values are generally in the vicinity of known showings.

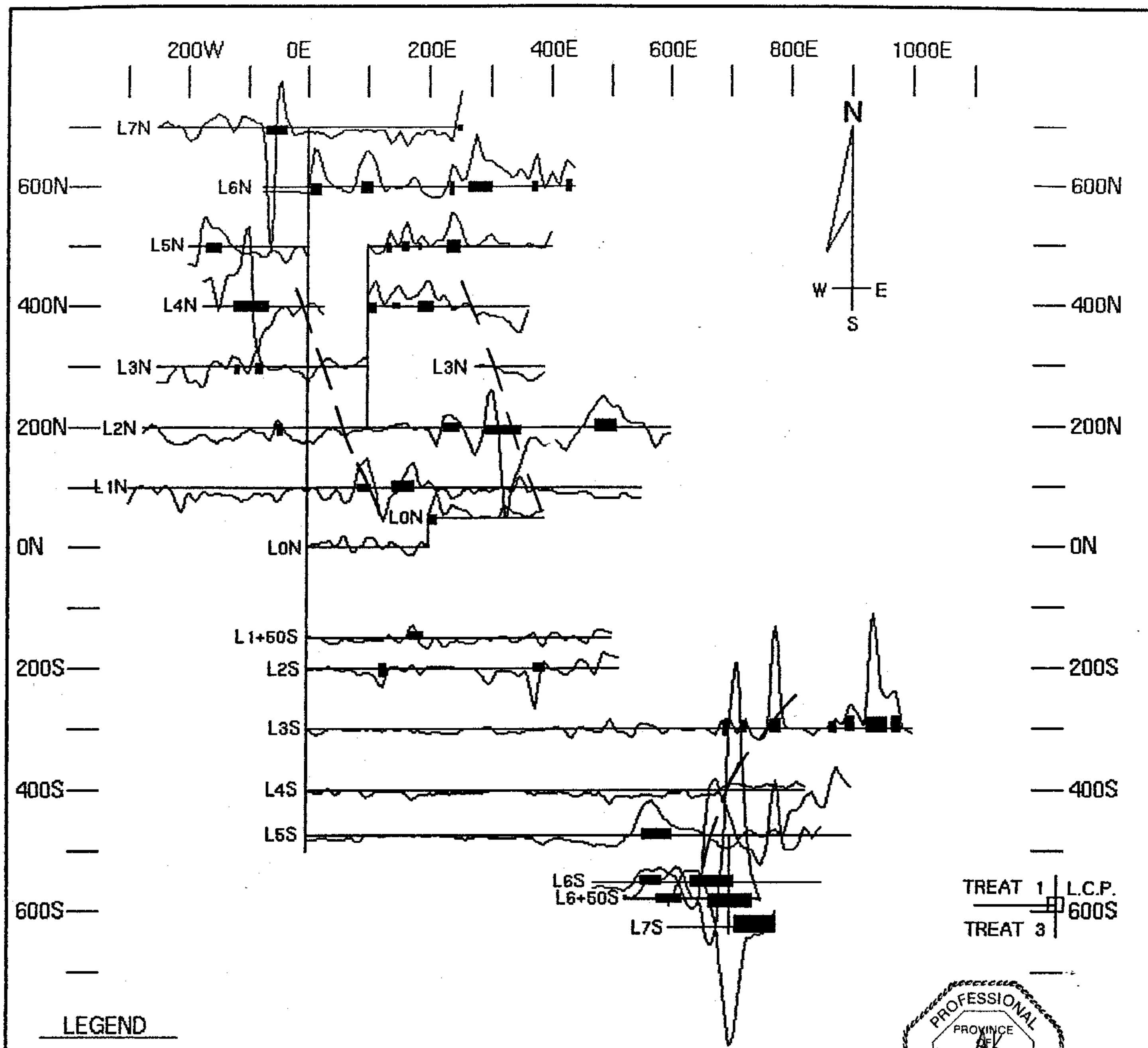
8.8 VLF-EM AND MAGNETOMETER GEOPHYSICAL SURVEYS

All of the geophysical data collected on the grid area was sent to GeoSci Data Analysis Ltd. of Richmond, B.C. for precessing and interpretation. An EDA Omni Plus Magnetometer/VLF system was used to gather total field magnetic intensity readings, the in-phase tilt angel, quadrature and field strength components of two VLF-EM signals. Data was recorded digitally and down loaded to a field computer for storage on floppy disk. A base station was established on the survey grid which recorded the diurnal variations in the magnetic field.

Magnetic and VLF-EM surveys were conducted across the survey grid with the dual intention of locating specific targets and providing assistance in geological mapping.

8.8.1 MAGNETOMETER SURVEY (Figures 15 to 20)

The magnetic data has identified ten anomalies which are characterized by high amplitudes and narrow widths and are attributed to massive magnetite mineralization. Most occur as single line anomalies. The most noticeable exception is an anomaly in the vicinity of the adit showing which traces a northwesterly striking magnetite lens some 250 meters long. This zone plunges to



LEGEND

■ Near surface magnetite and / or pyrrhotite

Magnetically inferred contact

Vancouver Mining Division

N.T.S. 92G/11W

0 100 200 300 400 500 600 700 metres

HORIZONTAL SCALE 1:10000

COMPONENT	LINE TYPE	BASE LINE VALUE	VERTICAL SCALE
TOTAL FIELD		56000 nTs	1000 nTs / cm

INSTRUMENT: EDA ONMI PLUS

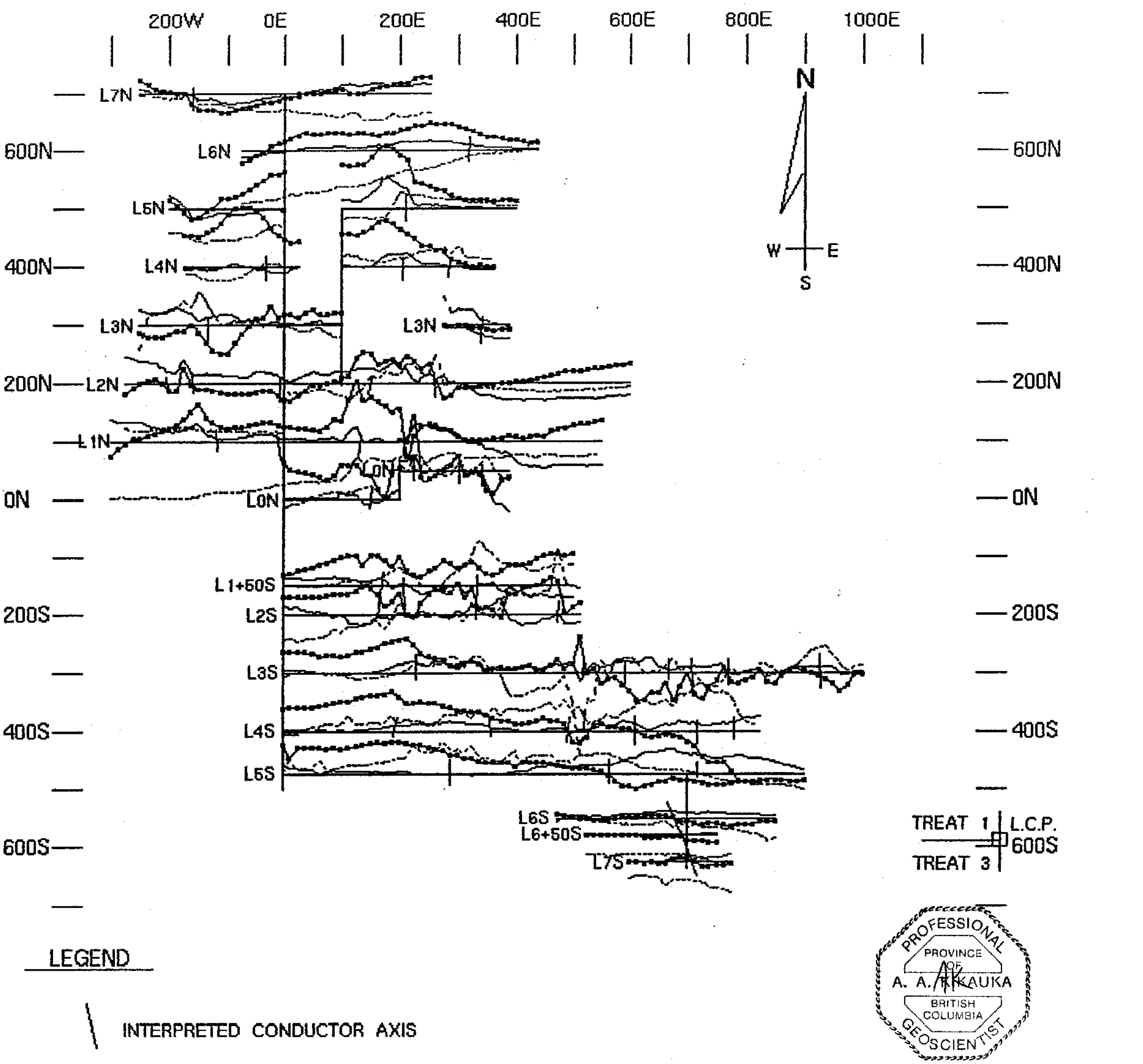
GEOSCI DATA ANALYSIS LTD.

ANTHIAN RESOURCE CORP.
JERVIS PROPERTY
TREAT 1 AND 3 CLAIMS

STACKED PROFILE MAP
TOTAL MAGNETIC FIELD INTENSITY

DATE: APRIL, 1993

FIGURE: 15



LEGEND

INTERPRETED CONDUCTOR AXIS

Vancouver Mining Division

N.T.S. 92G / 13W

0 100 200 300 400 500 600 700 metres

HORIZONTAL SCALE 1:10000

COMPONENT	LINE TYPE	BASE LINE VALUE	VERTICAL SCALE
INPHASE	—•—•—	0 %	50 % / cm
QUADRATURE	———	0 %	50 % / cm
FIELD STRENGTH	- - - -	15 %	10 % / cm

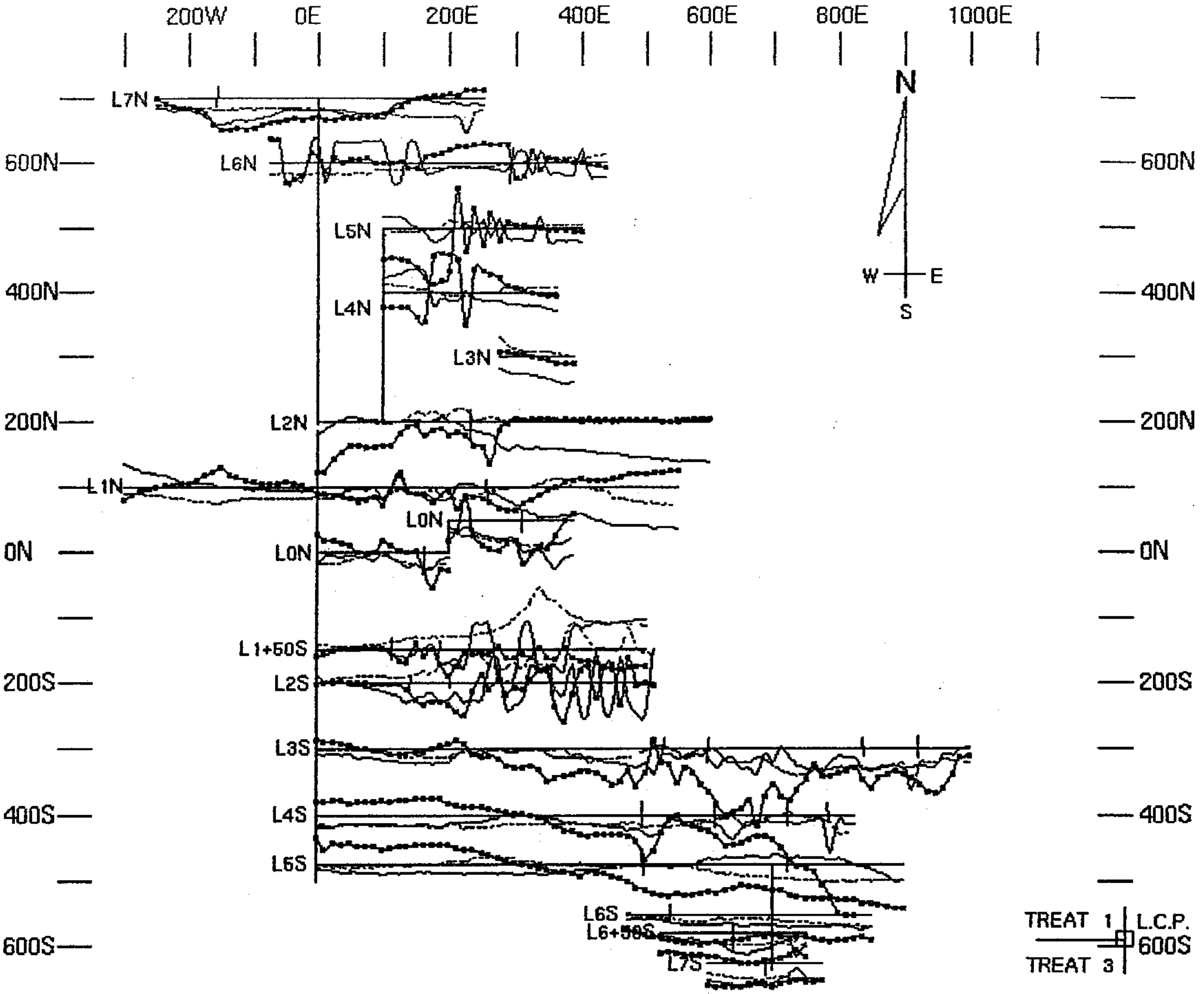
INSTRUMENT: EDA ONMI PLUS

GEOSCI DATA ANALYSIS LTD.

ANTHIAN RESOURCE CORP.
JERVIS PROPERTY
TREAT 1 AND 3 CLAIMS

VLF - EM (HAWAII : 23.4 kHz) PROFILE MAP
INPHASE - QUADRATURE - FIELD STRENGTH

DATE: APRIL, 1993 | FIGURE: **16**



LEGEND

INTERPRETED CONDUCTOR AXIS

PROFESSIONAL GEOSCIENTIST
PROVINCE OF BRITISH COLUMBIA
A. A. KIKAUKA

Vancouver Mining Division

N.T.S. 92G / 13W

0 100 200 300 400 500 600 700 metres

HORIZONTAL SCALE 1:10000

COMPONENT	LINE TYPE	BASE LINE VALUE	VERTICAL SCALE
INPHASE		50 %	50 % / cm
QUADRATURE		50 %	50 % / cm
FIELD STRENGTH		5 %	5 % / cm

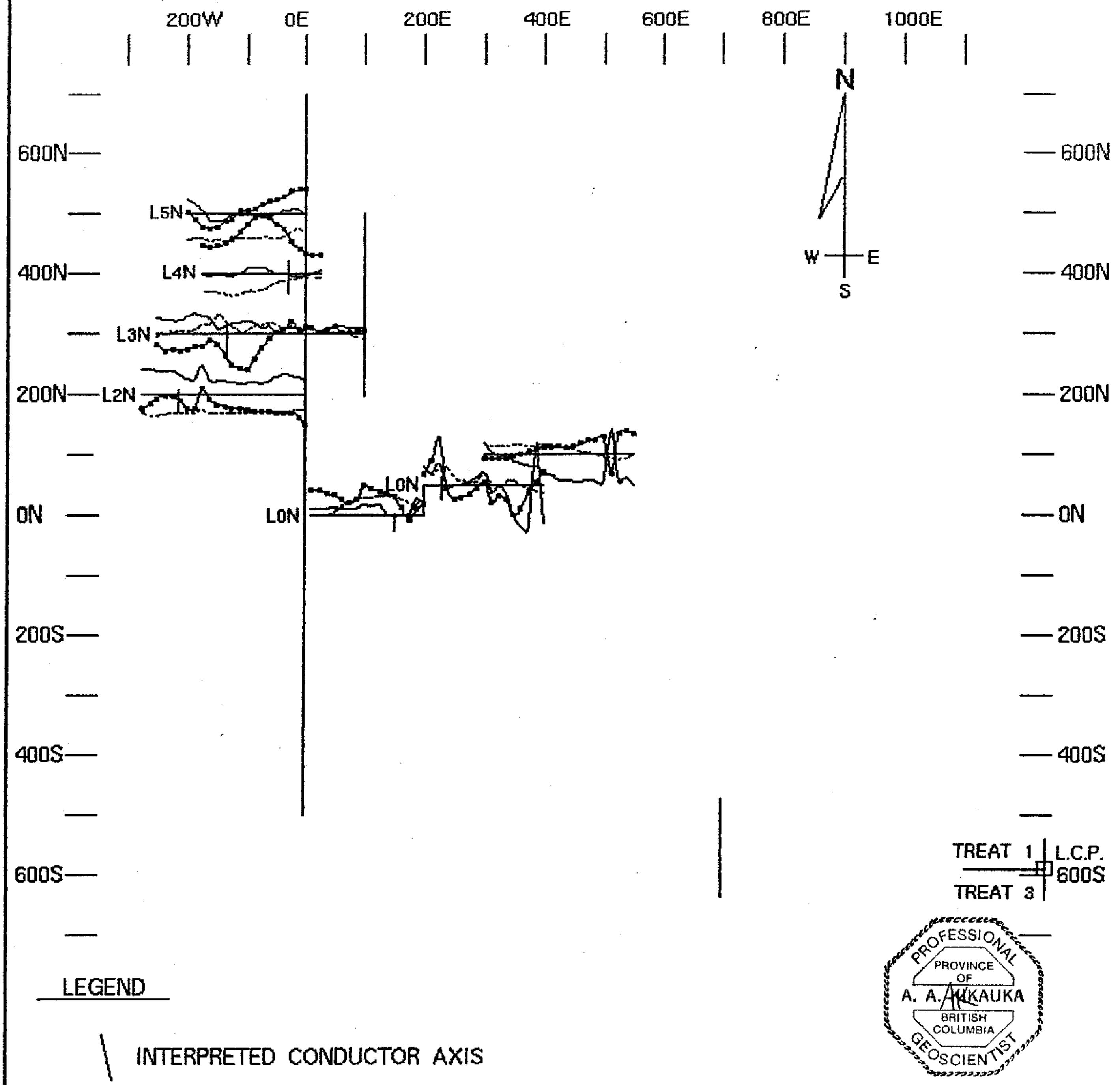
INSTRUMENT: EDA ONMI PLUS

GEOSCI DATA ANALYSIS LTD.

ANTHIAN RESOURCE CORP.
JERVIS PROPERTY
TREAT 1 AND 3 CLAIMS

VLF – EM (ANNAPOLIS : 21.4 kHz) PROFILE MAP
INPHASE – QUADRATURE – FIELD STRENGTH

DATE: APRIL, 1993 | FIGURE: 17



LEGEND

INTERPRETED CONDUCTOR AXIS

Vancouver Mining Division

N.T.S. 92G / 13W

0 100 200 300 400 500 600 700 metres

HORIZONTAL SCALE 1:10000

COMPONENT	LINE TYPE	BASE LINE VALUE	VERTICAL SCALE
INPHASE	(solid line with dots)	50 %	50 % / cm
QUADRATURE	(solid line)	50 %	50 % / cm
FIELD STRENGTH	(dashed line)	5 %	5 % / cm

INSTRUMENT: EDA ONMI PLUS

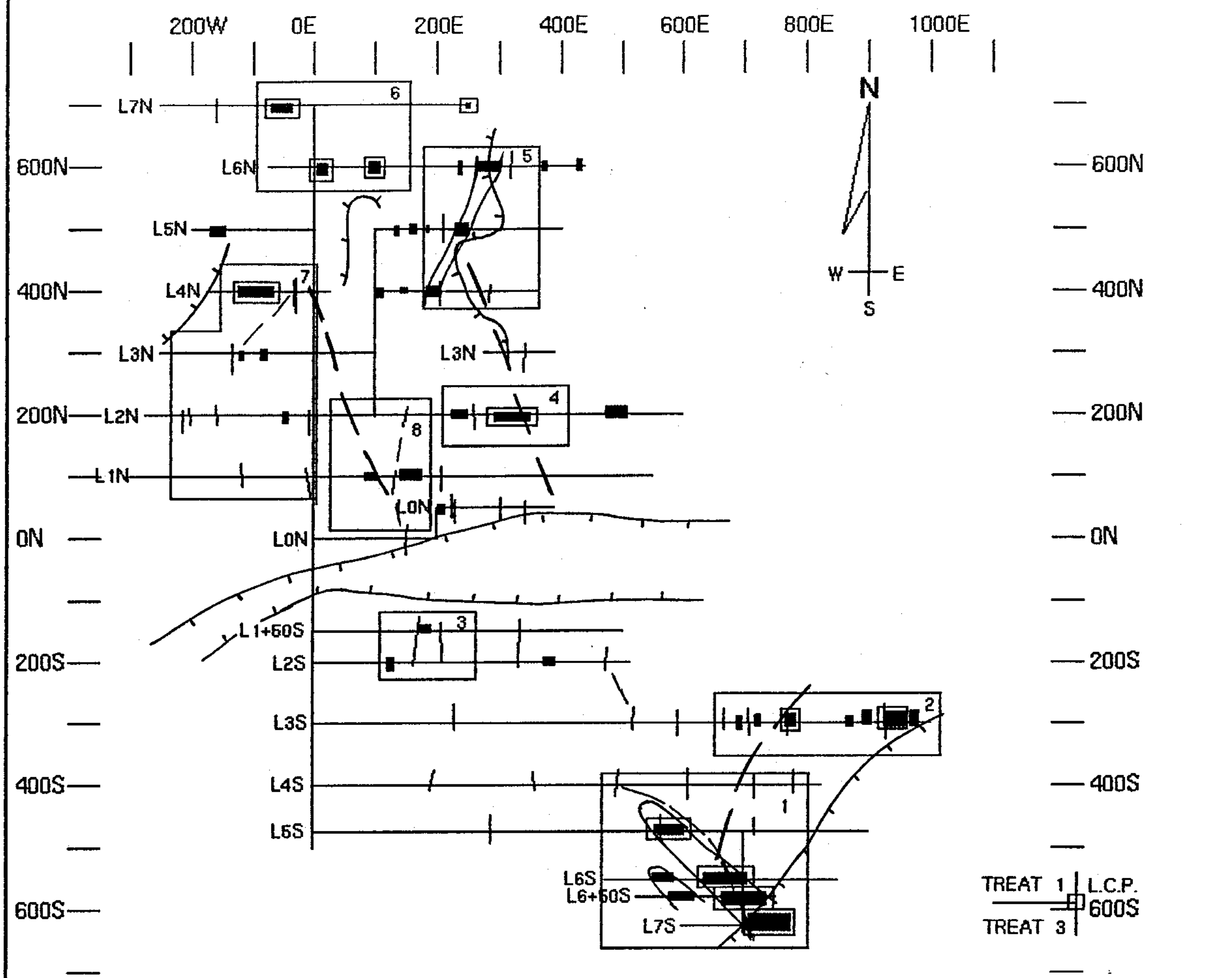
GEOSCI DATA ANALYSIS LTD.

ANTHIAN RESOURCE CORP.
JERVIS PROPERTY
TREAT 1 AND 3 CLAIMS

VLF - EM (CUTLER : 24.0 kHz) PROFILE MAP

INPHASE - QUADRATURE - FIELD STRENGTH

DATE: APRIL, 1993 | FIGURE: 18



LEGEND

- Localized mag anomaly
- Localized mag anomaly (probable magnetite)
- Vlf–em anomaly
- Magnetically defined contact
- Cliff , Steep Canyon
- L.C.P. – Legal Corner Post
- # – Area of Interest

PROFESSIONAL GEOSCIENTIST
PROVINCE OF BRITISH COLUMBIA
A. A. KIKAUKA

Vancouver Mining Division

N.T.S. 92G / 13W

0 100 200 300 400 500 600 700 metres

HORIZONTAL SCALE 1:10000

INSTRUMENT: EDA ONMI PLUS

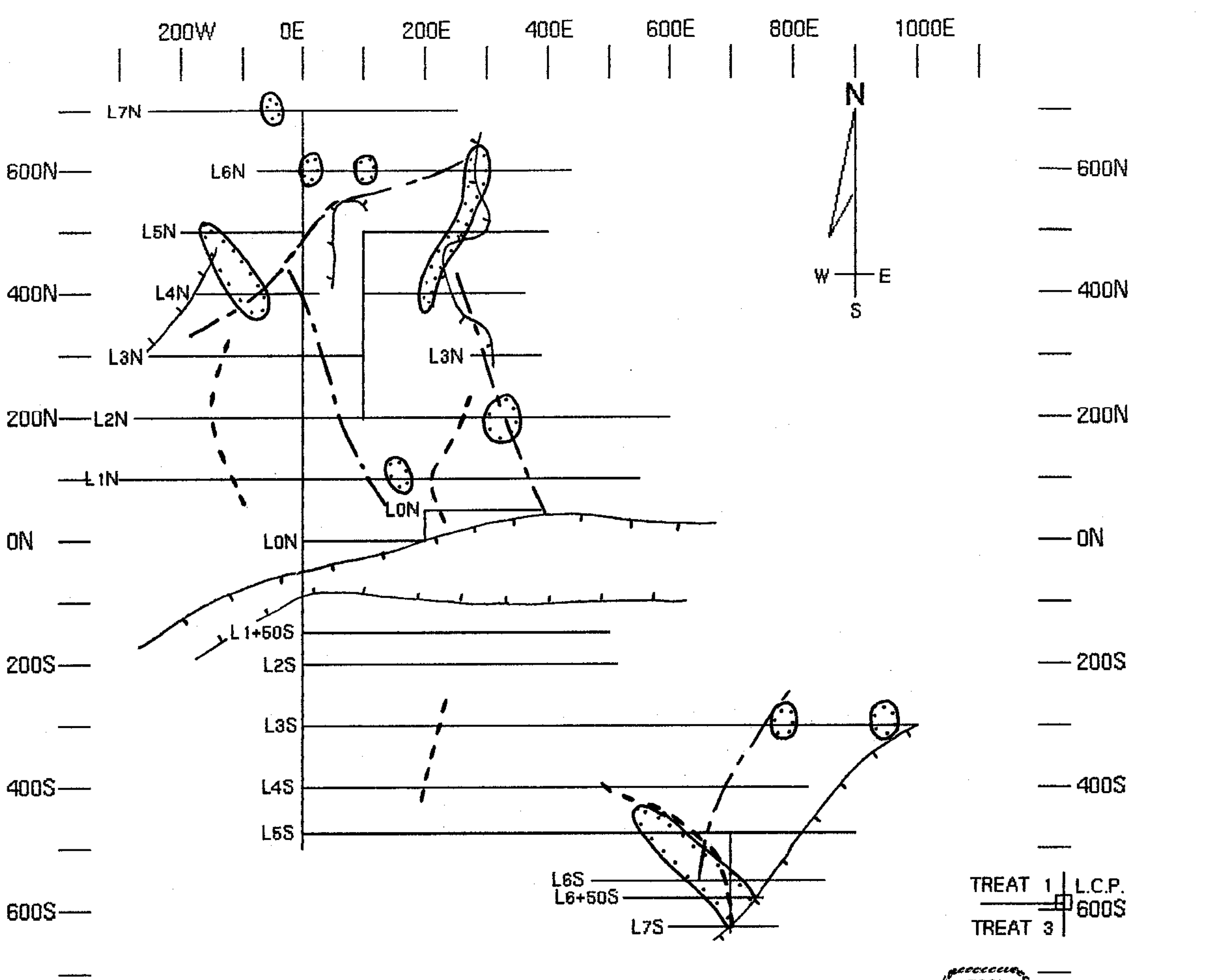
GEOSCI DATA ANALYSIS LTD.

ANTHIAN RESOURCE CORP.
JERVIS PROPERTY
TREAT 1 AND 3 CLAIMS

GEOPHYSICAL COMPILATION MAP
MAGNETICS , VLF – EM

DATE: APRIL, 1993

FIGURE: **19**



LEGEND

- Magnetite
- VLF-EM conductive lineation
- Magnetic lineation / contact
- Cliff, Steep Canyon
- L.C.P. - Legal Corner Post

PROFESSIONAL GEOSCIENTIST
PROVINCE OF BRITISH COLUMBIA
A. A. KIKAUKA

Vancouver Mining Division

N.T.S. 92G / 13W

0 100 200 300 400 500 600 700 metres

HORIZONTAL SCALE 1:10000

INSTRUMENT: EDA ONMI PLUS

GEOSCI DATA ANALYSIS LTD.

ANTHIAN RESOURCE CORP.
JERVIS PROPERTY
TREAT 1 AND 3 CLAIMS

GEOPHYSICAL INTERPRETATION MAP
MAGNETICS , VLF - EM

DATE: APRIL, 1993 | FIGURE: **20**

the northwest and may be dipping to the northeast. A second large magnetic feature is located across lines 600N to 400N, near station 250E. This anomaly coincides with the base of a scarp and requires a more detailed examination.

Additionally, a number of weaker magnetic anomalies are noted across the grid which could represent intrusive dykes. These anomalies could also be interpreted as indicating magnetite bodies.

The narrow, high amplitude magnetic anomalies dominate the data set however there are also a number of more subtle trends evident. A magnetic low striking northwesterly through the road showing may represent a fold axis or contact. A weak magnetic gradient located in the southeast corner of the grid is likely reflecting the contact between argillites and volcanics.

A northeasterly trending fault, identified by the aerial photo interpretation in the vicinity of line 500N, is evident in the magnetic data as a discontinuity in the regional northwesterly trends.

8.8.2 VLF-EM SURVEY

The VLF-EM data contains a number of weak conductivity anomalies. Most of these features are poorly defined and in most cases line to line correlation is uncertain. The quality of the responses is likely the result of the poor coupling angles between the transmission signal and short strike length source bodies. Shear zones, contacts, faults or poorly conductive sulphide lenses are possible sources.

9.0 DISCUSSION OF RESULTS

Thermal metamorphism from local intrusives provided a heat source that has produced propylitic alteration, silicification, and indurated country rock. Fracturing, faulting, and shearing associated with the emplacement of local intrusives sustained dilatant zones where base metal mineralization occurs. The 1993 surveys delineated four areas that require follow-up work.

AREA 1

The Adit Creek showing where massive, semi-massive to disseminated sulphides (magnetite, pyrrhotite, pyrite, chalcopyrite and sphalerite occur in shear zones and fractures located between 6+00S-7+75E and L7+00S-7+25E at the southeast corner of the grid area. Sampling this showing yielded values of up to 4064 ppm copper, 3.03oz/St silver and 2809 ppm zinc.

A well defined magnetic anomaly occurs in the vicinity of the Adit Creek showing coinside with the high copper, lead, zinc rock anomalies mentioned above.

Inspection of aerial photographs indicated that the mineralization in this location is related to structural control.

AREA 2

The second area highlights the T1 drill target zone located on L3+00S-7+50E to 10+00E where drill hole T1 by El Paso in 1971 intersected 0.2% Cu across 30 feet zone. A high amplitude, narrow width mag anomaly is coincide with this zone.

AREA 3

The third area is located between L3+00S-4+50E and L4+00S-5+00E. It represents massive pyrrhotite, pyrite and chalcopyrite mineralization of T2 drill target zone. Drill hole T2 by El Paso intersected mineralization of chalcopyrite - sphalerite the highest assay value was 0.16% Cu across 10 feet. The 1993 rock sampling yielded values of up to 9.98oz/St Ag, 2.03% Cu, 2199 ppm Pb and 6792 ppm Zn.

AREA 4

This area represents the Lone Jack Creek showing located on the lower end of Lone Jack Creek, several small rusty altered volcanic outcrops, with pyrrhotite, magnetite, pyrite and minor chalcopyrite. This area coincides with the VLF-EM anomaly on L1+00N 0+75E to 2+00E, and soil anomaly in the vicinity of the Lone Jack Creek showing.

10.0 CONCLUSIONS

* The Treat 1 and 3 claims are located in an area that is well known for hosting copper deposits. Numerous base and precious metal mines and showings occur in close proximity to the subject claims.

* The geological setting of the Treat property is similar to other dominantly copper rich base and precious metal deposits that occur within the region.

* The Treat property has been subject to several exploration and development programs as early as 1917 when three adits were driven into massive pyrrhotite - magnetite mineralization. 2,500 feet of core drilling were done in 1971 by El Paso Mining.

* The 1993 field work program has outlined four areas of geological interest including old showings characterized by anomalous copper, zinc and silver with assay values greater than 2% Cu, 2% Zn and 50 grams/tonne Ag. The geochemical soil survey has outlined two areas of interest. One area in the vicinity of the Lone Jack Creek showing, with elevated gold and zinc values. Another area in the vicinity of L3+00S between 7+00E-10+00E with high silver and zinc values in soils. Both areas need follow-up work with detailed soil sampling.

* Ten magnetic anomalies were detected during the 1993 geophysical survey which could be attributed to massive magnetite bodies associated with copper directly beneath the survey lines. The most noticeable exception is an anomaly in the vicinity of the adit showing, which traces a northwesterly

striking magnetic lens some 250 meters long. The associated VLF-EM anomaly suggests a similarly shaped source of conductivity.

* Close proximity to tidewater and infrastructure would reduce production costs.

* The results of the 1993 field program were encouraging and indicated that good potential exists for locating economic mineralization.

For these reasons further exploration work is recommended and warranted.

11.0 RECOMMENDATIONS

PHASE II

1. Geologically map and rock sample the unmapped area of the claims.

2. The grid should be extended to the south as well as to the east. A geochemical soil sampling and magnetometer survey program should be performed over the new extended grid.

3. Intermediate detailed grid lines should be put in at 50 meter intervals over all areas of Magnetometer anomalies and all areas of surface showings.

4. Detailed soil sampling and magnetometer surveys should be performed over all areas that require follow up work to help define the source, shape and the attitude of each magnetic or geochemical anomaly detected during the 1993 field program.

5. Backhoe trenching and blasting should be performed over all mineral showings including the adit creek showing, T1 and T2 drill target zones, Lone Jack Creek showing and the road showing to expose and test the mineralization along the strike of each zone.

6. Detailed mapping and rock sampling over all areas which require follow-up work. Attention should be paid to the northeast trending fractures which reflects distinct structural control.

PROPOSED BUDGET

PHASE 1

Field Crew:	
Project Geologist, Geotechnicians, Blaster	$ 28,000
Geophysicists	8,000
Backhoe operator	8,000
Field Cost:	
Backhoe, pump, hose, explosives, detonators	25,000
Mob/Demob	6,500
Assays	3,000
Meals and accommodation	16,000
Report	6,000
	TOTAL - $ 100,500

Contingent on the results of Phase 1, a follow up program of diamond drilling may be recommended.

PHASE 2

1,500 meters diamond drilling	$ 150,000
Project geologist, Geotechnician	25,000
Meals and accommodation	22,000
Assays	5,000
Mob/Demob	17,000
Report	6,000
	TOTAL - $ 225,000

REFERENCES

B.C. Dept. of Mines and Petroleum Resources, 1970. Geology, Exploration, and Mining in British Columbia.

B.C. Minister of Mines Report, 1917, 1922, and 1925.

Bacon, W.R., 1957. Geology of Lower Jervis Inlet, B.C. Dept of Mines Bulletin No. 39.

Kidlark, R.G., 1989, Report on the Jervis Inlet Property, private company report.

Laanela, H. 1968, Treat Creek Property Examination Report, Gunnex Ltd., private company report.

Lemmon, T.C., 1973, Diamond drill hole logs, El Paso Mining and Smelting Co., private company report.

CERTIFICATE

I, Andris Kikauka, of Box 370, Brackendale, B.C., hereby certify that:

1. I am a graduate of Brock University, St. Catherines, Ontario, with an Honours Bachelor of Science Degree in Geological Sciences, 1980.

2. I am a Fellow in good standing with the Geological Association of Canada.

3. I am registered in the Province of British Columbia as a Professional Geoscientist.

4. I have practised my profession for fifteen years in precious and base metal exploration in the Cordillera of Western Canada and South America, and for three years in uranium exploration in the Canadian Shield.

5. The information, opinions, and recommendations in this report are based on fieldwork carried out in my presence on the subject properties between March 13 and March 30, 1993 and on published and unpublished literature.

6. I have no interest, direct or indirect, with the subject property.

7. I consent to the use of this report in a Prospectus or Statement of Material Facts for the purpose of private or public financing.

Andris Kikauka, P.Geo.,

PROFESSIONAL GEOSCIENTIST
PROVINCE OF BRITISH COLUMBIA
A. A. KIKAUKA

April 29, 1993

APPENDIX A

ROCK SAMPLE DESCRIPTIONS

APPENDIX A: ROCK SAMPLE DESCRIPTIONS

SAMPLE	DESCRIPTION	WIDTH cm
T/93 R1	Chip; mineralized o/c of andesite tuff. Massive to disseminated sulphide includes 8%Py, 1%CPY, trace of SP, strong silicification, 5% quartz in cavities.	8
T/93 R2	Chip; silicified o/c of andesitic tuff taken from the same o/c as R1. Massive to disseminated sulphides 3% pyritite and 3%CPY, quartz and epidote in cavities.	100
T/93 R3	Chip; the same o/c, the same as above	100
T/93 R4	Chip; contact zone between silicified andesitic tuff and argillite, 5% qtz, 3%ep, tr CPY.	22
T/93 R5	Chip across zone of massive pyrrhotite hosted by altered (chloritic) volcanic tuff in contact with argillitic siltstone, 40% PYO, 1%CPY, tr sphalerite.	95
T/93 R6	Chip over smaller zone of massive sulphides, the same as above.	28
T/93 R7	Chip; silicified, altered andesitic tuff disseminated with pyrite, chalcopyrite, sphalerite. 5% qtz., 5%ep, 3%PY, 3%CPY, 1%Sp.	80
T/93 R8	Massive magnetite pod, hosted by andesitic tuff, 40% Mag, 10% Py, minor CPY Chip.	65

SAMPLE	DESCRIPTION	WIDTH cm
SAMPLE	DESCRIPTION	WIDTH cm
T/93 R9	Chip; contact zone between volcanic tuff and sediments (argillitic siltstone), massive pyrite, 2 to 3% chalcopyrite dissimination hosted by chloritic tuff.	30
T/93 R10	Chip across 25cm of pyritic andesite tuff, massive pyrite, minor serecite in fractures, strike NE, dipping 77° SE	25
T/93 R11	Chip, pyritic volcanic tuff along the road cut disseminated with 8 to 10% pyrite, 5% pyrrhotite.	
T/93 R12	Chip, base of bluff, 5% disseminated pyritic pyrrhotite, tr cpy, fracture filling 150°/72°SW.	30
T/93 R13	Base of bluff, altered (chloritic) andesite flow, 8% combined py and pyrrhotite, tr cpy in fractures chip sample.	30
T/93 R14	Chip across 2 meters of silicified, altered andesitic tuff disseminated with 8% pyo, 3% Py, 1 to 2% sphalerite, tr 0.5%CPY. Gossan zone along the road cut exposed for 35 meters.	200
T/93 R15 T/93 R16	Chip samples across the same gossan zone, 2 meters wide each, the same as R14.	200

SAMPLE	DESCRIPTION	WIDTH cm
T/93 R17– to T/93 R20	Chip across 2 meters of light brown, altered gossan zone, altered hematitic volcanic andesite disseminated with 8% PYO, 3%Py, tr CPY, cavities filled with hematite.	200

SAMPLE	DESCRIPTION	WIDTH cm
SAMPLE	**DESCRIPTION**	**WIDTH cm**
T/93 R21	Float angular boulder taken from adit dump, silicified material disseminated with 3%Py, tr CPY.	---
T/93 R22	Float, (adit dump), altered chloritic andesitic tuff, 30% massive to disseminated Py, 1%CPY.	---
T/93 R23	Chip; shear zone, N-20°E dipping 80°ES, pyrite dissemination 8%, tr CPY.	15
T/93 R24	Float; angular boulder (adit dump), 40% massive magnetite, 10% pyrrhotite, 5% pyrite and trace of CPY.	---
T/93 R25	Altered andesitic tuff (chloritic), disseminated with 8% pyrite, tr of CPY. Chip sample.	15
T/93 R26	Chip across shear zone strike N-20°E; semi-massive to disseminated mag (20%), pyrite (10%), 3% Pyo, 1% CPY.	20
T/93 R27	Same as R26. (trace of CPY)	15
T/93 R28	Small o/c of chloritic, altered andesitic tuff, 8% fine grained pyrite. Chip sample.	25
T/93 R29	Chip; semi-massive to massive pyrrhotite, hosted by chloritic andesitic tuff, 3% chalcopyrite and 1% sphalerite	15

SAMPLE	DESCRIPTION	WIDTH cm
T/93 R30	Chip; contact zone (volcanic tuff siltstone) 40% massive pyrrhotite, 2% chalcopyrite, hosted by altered (propylitic) andesitic tuff with 10% epidote.	15

SAMPLE	DESCRIPTION	WIDTH cm
SAMPLE	**DESCRIPTION**	**WIDTH cm**
T/93 R31	Chip; pyritic volcanic tuff o/c along the road cut, 8%Py, tr CPY.	15
T/93 R32	The same as above	15
T/93 R33	Float; gossan zone by the road cut, 8% disseminated pyrite, 2% sphalerite.	---
T/93 R34 to T/93 R37	Float samples collected from dump materials of the road showing at L5+00°N, 10 to 40% pyrrhotite, 1% chalcopyrite hosted by altered hematitic andesitic tuff.	---
T/93 R38	Float; angular andesitic tuff, semi-massive to disseminated sulphides, mainly pyrrhotite 10%, tr CPY.	---
T/93 R39	Chip; subcrop of light grey aphanitic tuff, 10% pyrite dissemination, tr of chalcopyrite.	30
T/93 R40	Subcrop of andesitic tuff, semi-massive to disseminated pyrrhotite 20%, 10% pyrite, 5% chalcopyrite. Chip across 30cm.	30
T/93 R41	Float; angular boulder of volcanic tuff, massive to disseminated magnetic sulphides, mainly pyrrhotite, 5% dissimination and fracture filling pyrrhotite.	---

SAMPLE	DESCRIPTION	WIDTH cm
T/93 R42	Lone Jack Creek, contact zone between argillic siltstone and andesitic tuff, fracture filling pyrite 1 to 2%, up to 15% pyrrhotite, and 3% sphalerite. Chip across 1 meter.	100

SAMPLE	DESCRIPTION	WIDTH cm
SAMPLE	**DESCRIPTION**	**WIDTH cm**
T/93 R43	Silicified, light grey pyritic andesite with up to 50% secondary quartz, 15% fine grained pyrite. Fractures at N-45°E.	8
T/93 R44	Chip; shear zone N-45°E, fracture filling 15%Py, 10% epidote hosted by volcanic tuff.	8
T/93 R45	Float, angular, local volcanic tuff, 30% pyrrhotite, 2% sphalerite, 1% chalcopyrite and 10% chlorite.	---
T/93 R46	Chip over 30cm of silicified pyritic volcanic tuff, 35%qtz, 3%Py, fractures N-10°E dipping west.	---
T/93 R47 to T/93 R50	Chip sample across 1 meter of contact zone at T_2 drill target showing. Massive pyrrhotite 20 to 30%, .5 chalcopyrite and 2% sphalerite, hosted by altered dark brown hematitic volcanic, fractures S+N dipping west filled with hematite.	100
T/93 FR51	Chip Sample; Rusty, altered (homatitic) volcanic tuff, 10%Mn oxide, 5% hematite, 5% limonite. Cavities filled with quartz.	200
T/93 FR52	Chip Sample; altered, hematitic rhyolite tuff intense Mn oxide, hematite limonite in vuggs.	200

SAMPLE	DESCRIPTION	WIDTH cm
T/93 FR53	Float; light grey plagioclase rhyolite porphyry, disseminated with 1 to 2% very fine grained pyrite.	---

SAMPLE	DESCRIPTION	WIDTH cm
SAMPLE	**DESCRIPTION**	**WIDTH cm**
T/93 FR54	Chip; andesitic volcanic tuff hosting two quartz veins 4 to 5cm wide strike 55°/80°NW, no sulphides.	30
T/93 FR55	Chip sample; rusty andesitic volcanic flow, 5% hem, 3% magnetite, 2% pyrite, 2% chalcopyrite.	30
T/93 FR56	Chip sample over 4 meters of altered, dark brown andesitic volcanic tuff with up to 10% hem, 3% limonite, 1% pyrite and 2% pyrrhotite, trace of chalcopyrite.	400
T/93 FR57	Chip over 5 meters of hematitic, rusty andesitic tuff, 10% hem, 3% lim, 1%Py, 2% pyrrhotite and 1 to 2% chalcopyrite.	500
T/93 FR58	Chip, altered, hematitic tuff, 10% hem, 3% lim, 3% pyrite, trace of chalcopyrite.	60
T/93 FR59	Chip; hematitic, dark brown andesitic volcanic tuff, 10% hematite, 10% lim, 8% pyrite and 1% chalcopyrite.	100
T/93 FR60	Chip across 8 meters of altered (hematitic), mineralized o.c of volcanic tuff, south bank of Lone Jack Creek, 5% hem, 5%Py, 2%Pyo, 1%CPY	800
T/93 FR61	Chip Sample across 10 meters of altered hematitic andesitic tuff, disseminated with 5%Py, 2%Pyo, minor chalcopyrite.	1000

SAMPLE	DESCRIPTION	WIDTH cm
T/93 FR62	Chip; reddish to dark brown pyritic volcanic tuff, 1% fine grained pyrite.	500

SAMPLE	DESCRIPTION	WIDTH cm
SAMPLE	**DESCRIPTION**	**WIDTH cm**
T/93 FR63	Float, massive sulphides hosted by dark grey aphanitic tuff, 15%Pyo, 5%Py, 10% magnetite.	---
T/93 FR64	Float; altered black argillite, intense silicification 80% milky massive quartz, 2%Py dissemination minor chalcopyrite.	---
T/93 FR65	Chip; black banded argillite, less than 1% fine grained pyrite.	200
T/93 FR66	Chip sample over 1 meter of black banded argillite hosting 1 to 2mm of calcite veinlets 2% fine grained pyrite.	100
T/93 FR67	Channel sample; massive, reddish quartz vein strike 45°/90°, hosted by black banded argillite, 2%Py, trace CPY. Vein exposed for 2 meters.	20
T/93 FR68	Chip; altered argillite, limonite, hematite along fractures, 2%Py.	60
T/93 FR69	Chip over 1 meter of mineralized argillite, 2% fine grained Py along beddings, 5%Ep in vuggs.	100
T/93 FR70	Float; silicified pyritic volcanic tuff, 2%Py, limonite hematite along fractures.	---
T/93 FR71	Chip; pyritized, light grey aphanitic dacite, 2 to 3%Py. Fractures strike 60°/90° filled with pyrite.	100

SAMPLE	DESCRIPTION	WIDTH cm
SAMPLE	**DESCRIPTION**	**WIDTH cm**
T/93 FR72	Chip; rusty, massive to disseminated Py, pyrrhotite hosted by light grey plag porphyry dacitic tuff.	30
T/93 FR73	Chip over 60cm of hematitic, altered volcanic tuff, 30% combined hematite and limonite, 5 to 7%Py, 2% magnetite, minor CPY	60
T/93 FR74	Chip; shear zone strike 315°/45° taken at the end of an adit, 40% recrystallized sugary quartz 2 to 3% epidote. No obvious sulphides, Chip sample across 30cm of the shear zone.	30
T/93 FR75	Chip; black banded argillite, hosting 5cm quartz vein disseminated with 2%Py.	20
T/93 FR76	Select sample of altered volcanic o/c, hosting fracture zone south and north 55°/90°, 15% combined massive to disseminated sulphides mainly Py and Pyo.	30
T/93 FR77	Chip; pyritic, rusty volcanic andesite tuff, 10% hematite and limonite in cavities, 1%Py.	30
T/93 FR78	Chip; plagioclase porphyry dyke strike 120°/90°, 4 meters wide, 2% fine grained pyrite dissemination.	400
T/93 FR79	Select; reddish, rusty o/c of pyritic andesite tuff 20% pyrite and Mn oxide.	30

SAMPLE	DESCRIPTION	WIDTH cm
T/93 FR80	Chip; light grey fine grained volcanic tuff disseminated with 1 to 2%Py, fractures filled with Mn oxide and hematite.	60

SAMPLE	DESCRIPTION	WIDTH cm
SAMPLE	**DESCRIPTION**	**WIDTH cm**
T/93 R101	Shear zone trending NW, 50cm of pyritic sheared volcanic tuff, 5% fine grained pyrite. Chip sample across the shear zone.	50
T/93 R102	Milky quartz vein next to shear zone, <1% pyrite dissemination with irregular width and trend, max width is 10cm. Chip sample over the vein.	10
T/93 R103	Pyritic, silicified crystals ash tuff, 2 to 3% disseminated and fracture controlled pyrite in dark grey to green groundmass - 10% epidote. Chip over 30cm.	30
T/93 R104	Three meters of strongly silicified and chloritized rusty weathering andesitic tuff, weakly magnetic, 3 to 5% pyrrhotite disseminated and in fractures, minor pyrite. Chip over 3 meters.	300
T/93 R105	Rusty banded pyritic ash tuff, 1% pyrite. Chip over 1 meter.	100
T/93 R106	Same as R105	100
T/93 R107	Subcrop, strong silicification in quartz monzonite, minor pyrite.	100
T/93 R108	Pyritic, silicified argillite, <1% pyrite in quartz stringers. Chip over 1 meter.	100
T/93 R109	Same as R108	100

APPENDIX B

ANALYTICAL REPORTS

VGC VANGEOCHEM LAB LIMITED

MAIN OFFICE
1630 PANDORA STREET
VANCOUVER, B.C.
V5L 1L6
TEL (604) 251-5656
FAX (604) 254-5717

BRANCH OFFICES
BATHURST, N.B.
RENO, NEVADA, U.S.A.

GEOCHEMICAL ANALYTICAL REPORT

CLIENT: ARROWHEAD EXPLORATION SERVICES
ADDRESS: 900 - 999 W. Hastings St.
: Vancouver, BC
: V6C 2W2

DATE: APR 08 1993
REPORT#: 930020 GA
JOB#: 930020

PROJECT#: 402
SAMPLES ARRIVED: MAR 29 1993
REPORT COMPLETED: APR 08 1993
ANALYSED FOR: Au (FA/AAS) ICP

INVOICE#: 930020 NA
TOTAL SAMPLES: 90
SAMPLE TYPE: 90 ROCK
REJECTS: SAVED

SAMPLES FROM: MR. FAYZ YACOUB
COPY SENT TO: ARROWHEAD EXPLORATION SERVICES

PREPARED FOR: MR. FAYZ YACOUB

ANALYSED BY: Raymond Chan

SIGNED: ____________

GENERAL REMARK: RESULTS FAXED TO MR. FAYZ YACOUB @ 683-6958.

VGC VANGEOCHEM LAB LIMITED

MAIN OFFICE
1630 PANDORA STREET
VANCOUVER, B.C.
V5L 1L6
TEL (604) 251-5656
FAX (604) 254-5717

BRANCH OFFICES
BATHURST, N.B.
RENO, NEVADA, U.S.A.

REPORT NUMBER: 930020 GA   JOB NUMBER: 930020   ARROWHEAD EXPLORATION SERVICES

SAMPLE #	Au ppb
T93 R-1	60
T93 R-2	20
T93 R-3	10
T93 R-4	10
T93 R-5	20
T93 R-6	20
T93 R-7	80
T93 R-8	20
T93 R-9	20
T93 R-10	20
T93 R-11	60
T93 R-12	10
T93 R-13	10
T93 R-14	10
T93 R-15	10
T93 R-16	10
T93 R-17	10
T93 R-18	20
T93 R-19	20
T93 R-20	50
T93 R-21	10
T93 R-22	40
T93 R-23	150
T93 R-24	40
T93 R-25	10
T93 R-26	20
T93 R-27	30
T93 R-28	60
T93 R-29	20
T93 R-30	10
T93 R-31	10
T93 R-32	10
T93 R-33	10
T93 R-34	10
T93 R-35	20
T93 R-36	10
T93 R-37	10
T93 R-38	20
T93 R-39	10
DETECTION LIMIT	5

nd = none detected   -- = not analysed   is = insufficient sample

VGC VANGEOCHEM LAB LIMITED

MAIN OFFICE
1630 PANDORA STREET
VANCOUVER, B.C.
V5L 1L6
TEL (604) 251-5656
FAX (604) 254-5717

BRANCH OFFICES
BATHURST, N.B.
RENO, NEVADA, U.S.A.

SAMPLE #	Au ppb
T93 R-40	10
T93 R-41	20
T93 R-42	20
T93 R-43	40
T93 R-44	30
T93 R-45	20
T93 R-46	20
T93 R-47	60
T93 R-48	10
T93 R-49	40
T93 R-50	40
T93 FR-51	200
T93 FR-52	10
T93 FR-53	10
T93 FR-54	10
T93 FR-55	10
T93 FR-56	20
T93 FR-57	20
T93 FR-58	nd
T93 FR-59	20
T93 FR-60	20
T93 FR-61	10
T93 FR-62	20
T93 FR-63	10
T93 FR-64	nd
T93 FR-65	nd
T93 FR-66	20
T93 FR-67	10
T93 FR-68	nd
T93 FR-69	nd
T93 FR-70	nd
T93 FR-71	nd
T93 FR-72	nd
T93 FR-73	50
T93 FR-74	nd
T93 FR-75	nd
T93 FR-76	nd
T93 FR-77	nd
T93 FR-78	nd
DETECTION LIMIT	5

nd = none detected -- = not analysed is = insufficient sample

VGC VANGEOCHEM LAB LIMITED

MAIN OFFICE
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VANCOUVER, B.C.
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BRANCH OFFICES
BATHURST, N.B.
RENO, NEVADA, U.S.A.

SAMPLE #	Au ppb
T93 FR-79	120
T93 FR-80	10
TC93 R-101	10
TC93 R-102	20
TC93 R-103	10
TC93 R-104	10
TC93 R-105	nd
TC93 R-106	nd
TC93 R-107	nd
TC93 R-108	nd
TC93 R-109	nd
AM 9301 ROCK 2055 515 E	nd
DETECTION LIMIT	5

nd = none detected -- = not analysed is = insufficient sample

1630 Pandora Street, Vancouver, B.C. V5L 1L6
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ICAP GEOCHEMICAL ANALYSIS

A .5 gram sample is digested with 5 ml of 3:1:2 HCL to HNO_3 to H_2O at 95 °C for 90 minutes and is diluted to 10 ml with water.
This leach is partial for Al, Ba, Ca, Cr, Fe, K, Mg, Mn, Na, P, Sn, Sr and W.

ANALYST: [signature]

REPORT #: 930020 PA   ARROWHEAD EXPLORATION SERVICES   PROJECT: 402   DATE IN: MAR 29 1993   DATE OUT: APR 14 1993   ATTENTION: MR. FAYZ YACOUB

Sample Name	Ag	Al	As	*Au	Ba	Bi	Ca	Cd	Co	Cr	Cu	Fe	K	Mg	Mn	Mo	Na	Ni	P	Pb	Sb	Sn	Sr	U	W	Zn
	ppm	%	ppm	ppb	ppm	ppm	%	ppm	ppm	ppm	ppm	%	%	%	ppm	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
T93 R-1	>50	0.82	<3	60	9	<3	1.36	5.8	36	64	>20000	9.02	<0.01	0.05	359	3	0.04	26	0.14	117	<2	<2	59	<5	<3	451
T93 R-2	42.0	0.99	<3	20	3	<3	1.45	2.8	60	155	9290	6.58	<0.01	0.16	489	2	0.02	26	0.11	23	<2	<2	61	<5	<3	442
T93 R-3	>50	0.92	<3	10	2	<3	1.45	0.1	21	162	4081	6.75	<0.01	0.07	413	4	0.03	14	0.09	37	<2	<2	64	<5	<3	306
T93 R-4	33.0	1.13	<3	10	<1	<3	1.92	<0.1	28	187	2140	4.52	<0.01	0.09	327	1	0.03	8	0.06	44	<2	<2	96	<5	<3	107
T93 R-5	>50	0.27	<3	20	<1	<3	0.37	21.9	362	12	13191	>10	<0.01	0.12	523	1	0.24	492	0.05	2199	<2	<2	11	<5	<3	3519
T93 R-6	34.0	0.30	<3	20	<1	<3	0.37	43.7	586	43	7582	>10	<0.01	0.11	509	2	0.35	914	0.06	915	<2	<2	13	<5	<3	5539
T93 R-7	>50	1.01	<3	80	<1	<3	1.40	9.4	29	198	>20000	>10	<0.01	0.21	700	<1	0.05	29	0.10	416	<2	<2	68	<5	<3	1647
T93 R-8	7.1	1.97	<3	20	<1	<3	>10	<0.1	99	101	4064	>10	<0.01	0.42	2348	1	0.17	49	0.03	105	<2	<2	12	<5	<3	458
T93 R-9	>50	2.72	<3	20	<1	<3	0.97	<0.1	21	44	>20000	>10	<0.01	1.02	2528	1	0.04	36	0.11	141	<2	<2	64	<5	<3	356
T93 R-10	25.4	0.71	<3	20	<1	10	0.95	<0.1	255	37	745	>10	<0.01	0.11	296	1	0.20	72	0.03	396	<2	<2	40	<5	<3	344
T93 R-11	1.3	2.60	<3	60	39	<3	2.08	<0.1	50	74	317	6.92	<0.01	0.48	230	<1	0.31	58	0.09	7	<2	<2	143	<5	<3	64
T93 R-12	2.2	2.50	<3	10	27	<3	2.24	<0.1	42	79	353	5.48	<0.01	0.72	301	<1	0.32	45	0.06	<2	<2	<2	72	<5	<3	45
T93 R-13	0.8	6.34	<3	10	55	<3	3.27	<0.1	78	237	434	8.26	<0.01	3.36	742	<1	0.15	275	0.12	<2	<2	<2	116	<5	<3	94
T93 R-14	2.8	3.59	<3	10	88	<3	2.62	<0.1	44	64	794	7.46	<0.01	1.44	1293	1	0.10	30	0.06	<2	<2	<2	92	<5	<3	251
T93 R-15	2.7	4.38	<3	10	23	<3	1.51	12.0	53	164	1449	>10	<0.01	2.80	2957	1	0.01	55	0.06	24	<2	<2	59	<5	<3	1303
T93 R-16	2.5	4.75	<3	10	43	<3	1.19	49.7	56	165	1208	>10	<0.01	3.20	3825	1	<0.01	58	0.06	<2	<2	<2	48	<5	<3	6624
T93 R-17	2.8	2.46	<3	10	<1	<3	0.88	335.8	49	95	1197	>10	<0.01	1.43	2862	6	0.45	51	0.05	<2	<2	<2	29	<5	<3	>20000
T93 R-18	2.2	2.06	<3	20	<1	<3	0.82	164.4	41	164	1070	>10	<0.01	1.10	2214	2	0.14	60	0.02	3	<2	<2	27	<5	<3	19108
T93 R-19	2.3	1.88	54	20	<1	<3	0.92	379.5	49	59	1487	>10	<0.01	0.97	2066	3	0.71	73	0.03	13	<2	<2	36	<5	<3	>20000
T93 R-20	3.4	2.27	849	50	<1	<3	0.76	200.7	129	73	1283	>10	<0.01	1.44	2196	2	0.24	107	0.04	83	<2	<2	27	<5	<3	>20000
T93 R-21	0.9	3.77	<3	10	88	<3	1.56	<0.1	34	212	541	7.05	<0.01	0.96	789	6	0.21	56	0.05	8	<2	<2	114	<5	<3	276
T93 R-22	2.4	3.64	<3	40	<1	<3	0.78	<0.1	215	92	818	>10	<0.01	1.67	3574	1	0.25	123	0.05	65	<2	<2	28	<5	<3	1168
T93 R-23	7.6	3.19	156	150	<1	<3	0.36	<0.1	58	>1000	3170	>10	<0.01	1.55	5753	1	0.29	133	0.03	211	<2	<2	4	<5	<3	2809
T93 R-24	3.6	1.57	<3	40	<1	<3	7.29	<0.1	80	91	408	>10	<0.01	0.18	1300	1	0.33	31	0.02	491	<2	<2	2	<5	<3	620
T93 R-25	0.7	1.33	<3	10	26	<3	1.85	<0.1	49	102	164	7.29	<0.01	0.48	375	<1	0.15	46	0.07	17	<2	<2	95	<5	<3	91
T93 R-26	5.6	1.58	<3	20	<1	<3	7.88	<0.1	263	126	1607	>10	<0.01	0.15	1332	1	0.30	135	0.02	64	<2	<2	6	<5	<3	121
T93 R-27	2.8	2.06	121	30	<1	<3	1.71	<0.1	52	309	549	>10	<0.01	0.63	1775	1	0.35	128	0.02	101	<2	<2	4	<5	<3	785
T93 R-28	0.8	3.40	<3	60	24	<3	1.93	<0.1	58	59	461	>10	<0.01	1.34	634	<1	0.33	58	0.08	<2	<2	<2	136	<5	<3	88
T93 R-29	>50	1.09	<3	20	<1	<3	1.62	56.4	112	88	>20000	>10	<0.01	0.44	1337	<1	0.04	195	0.12	45	<2	<2	60	<5	<3	6792
T93 R-30	9.0	0.11	<3	10	<1	<3	0.21	5.1	928	13	2539	>10	<0.01	0.02	163	2	0.42	1204	0.05	75	<2	<2	6	<5	<3	1614
T93 R-31	1.0	1.26	<3	10	59	<3	0.67	<0.1	37	213	281	6.66	<0.01	0.57	309	1	0.13	77	0.09	<2	<2	<2	21	<5	<3	119
T93 R-32	0.5	1.42	<3	10	23	<3	1.40	<0.1	34	91	110	4.10	<0.01	0.62	310	<1	0.16	33	0.10	<2	<2	<2	52	<5	<3	40
T93 R-33	2.2	7.06	765	10	<1	<3	8.98	66.8	34	81	890	>10	<0.01	0.91	1071	2	<0.01	35	0.07	<2	<2	<2	10	<5	<3	9265
T93 R-34	8.6	1.89	<3	10	<1	<3	0.55	>1000	171	64	886	>10	<0.01	1.28	2729	7	6.37	121	0.04	59	<2	<2	25	<5	<3	>20000
T93 R-35	3.2	4.50	<3	20	23	<3	1.22	47.9	101	116	1843	>10	<0.01	3.41	2594	2	<0.01	104	0.07	45	<2	<2	36	<5	<3	6821
T93 R-36	3.3	1.25	141	10	14	<3	0.89	56.4	71	165	2057	>10	<0.01	0.52	906	1	0.12	114	0.01	23	<2	<2	44	<5	<3	7811
T93 R-37	3.3	1.56	<3	10	<1	<3	0.95	448.6	39	148	1364	>10	<0.01	0.61	1617	3	0.96	76	0.04	29	<2	<2	34	<5	<3	>20000
T93 R-38	1.5	0.90	<3	20	<1	<3	1.45	<0.1	289	22	1456	>10	<0.01	0.09	325	1	0.21	882	0.08	35	<2	<2	39	<5	<3	531
T93 R-39	2.0	1.82	<3	10	<1	<3	1.80	<0.1	371	44	1709	>10	<0.01	0.09	536	1	0.37	684	0.07	27	<2	<2	48	<5	<3	277
Minimum Detection	0.1	0.01	3	5	1	3	0.01	0.1	1	1	1	0.01	0.01	0.01	1	1	0.01	1	0.01	2	2	2	1	5	3	1
Maximum Detection	50.0	10.00	2000	10000	1000	1000	10.00	1000.0	20000	1000	20000	10.00	10.00	10.00	20000	1000	10.00	20000	10.00	20000	2000	1000	10000	100	1000	20000

< - Less Than Minimum   > - Greater Than Maximum   is - Insufficient Sample   ns - No Sample   *Au Analysis Done By Fire Assay Concentration / AAS Finish.

Pandor[redacted]t, Va[redacted] B.C.[redacted]L6
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ICAP GEOCHEMICAL ANALYSIS

A .5 gram sample is digested with 5 ml of 3:1:2 HCL to HNO_3 to H_2O at 95 °C for 90 minutes and is diluted to 10 ml with water.
This leach is partial for Al, Ba, Ca, Cr, Fe, K, Mg, Mn, Na, P, Sn, Sr and W.

ANALYST: [signature]

EPORT #: 930020 PA ARROWHEAD EXPLORATION SERVICES PROJECT: 402 DATE IN: MAR 29 1993 DATE OUT: APR 14 1993 ATTENTION: MR. FAYZ YACOUB

Sample Name	Ag	Al	As	*Au	Ba	Bi	Ca	Cd	Co	Cr	Cu	Fe	K	Mg	Mn	Mo	Na	Ni	P	Pb	Sb	Sn	Sr	U	W	Zn
	ppm	%	ppm	ppb	ppm	ppm	%	ppm	ppm	ppm	ppm	%	%	%	ppm	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
93 R-40	2.6	1.76	<3	10	<1	<3	1.70	<0.1	341	48	1952	>10	<0.01	0.08	500	1	0.32	522	0.06	21	<2	<2	60	<5	<3	285
93 R-41	3.2	0.86	<3	20	<1	<3	1.68	<0.1	258	17	1734	>10	<0.01	0.08	651	9	0.28	143	0.12	36	<2	<2	12	<5	<3	196
93 R-42	5.5	2.33	<3	20	<1	<3	0.04	>1000	164	11	1542	>10	<0.01	1.49	3299	12	>10	80	0.02	<2	<2	<2	1	<5	<3	>20000
93 R-43	0.9	0.66	<3	40	<1	6	0.61	207.7	349	48	718	>10	<0.01	0.16	332	1	0.20	23	0.01	<2	<2	<2	21	<5	<3	>20000
93 R-44	0.6	1.87	<3	30	<1	<3	0.23	6.8	178	126	59	>10	<0.01	1.27	1317	1	0.27	52	0.02	84	<2	<2	28	<5	<3	1811
93 R-45	9.6	1.79	<3	20	<1	8	2.51	5.5	296	48	5314	>10	<0.01	0.20	822	1	0.26	471	0.11	20	<2	<2	19	<5	<3	1262
93 R-46	0.3	2.20	<3	20	1	<3	2.49	0.6	22	143	130	3.60	<0.01	0.61	714	<1	<0.01	50	0.03	<2	<2	<2	20	<5	<3	363
93 R-47	10.0	1.37	<3	60	<1	13	1.76	27.7	102	117	842	6.66	<0.01	0.45	1341	2	0.03	69	0.16	509	<2	<2	58	<5	<3	3447
93 R-48	3.2	4.51	<3	10	30	<3	4.02	8.3	43	74	328	3.84	<0.01	0.59	1112	1	0.24	30	0.12	253	<2	<2	240	<5	<3	1262
93 R-49	4.8	1.29	<3	40	<1	<3	2.21	3.0	20	41	456	5.63	<0.01	0.27	647	<1	0.01	8	0.11	37	<2	<2	101	<5	<3	579
93 R-50	10.6	0.87	<3	40	<1	<3	1.69	1.4	22	42	817	5.16	<0.01	0.16	427	<1	0.02	11	0.11	307	<2	<2	69	<5	<3	304
93 FR-51	0.5	2.21	<3	200	6	<3	2.43	<0.1	15	28	168	5.09	<0.01	0.72	361	1	0.06	6	0.07	<2	<2	<2	42	<5	<3	66
93 FR-52	0.3	3.58	<3	10	14	<3	4.42	<0.1	38	57	168	5.59	<0.01	1.23	688	<1	0.08	35	0.08	<2	<2	<2	24	<5	<3	77
93 FR-53	<0.1	3.52	<3	10	154	<3	3.27	<0.1	13	10	10	5.09	<0.01	1.20	2301	<1	0.16	8	0.13	20	<2	<2	40	<5	<3	97
93 FR-54	<0.1	7.72	<3	10	15	<3	>10	<0.1	22	554	5	4.85	<0.01	3.27	1129	<1	0.36	113	0.03	<2	<2	<2	124	<5	<3	95
93 FR-55	2.7	0.37	<3	10	<1	<3	2.22	<0.1	81	26	1732	>10	<0.01	0.09	512	2	0.17	230	0.44	35	<2	<2	28	<5	<3	216
93 FR-56	0.6	2.26	<3	20	2	<3	2.55	<0.1	37	107	214	8.70	<0.01	0.74	1336	2	0.03	83	0.08	11	<2	<2	80	<5	<3	152
93 FR-57	1.3	1.87	<3	20	167	<3	2.38	<0.1	16	43	856	>10	<0.01	0.29	448	5	0.12	18	0.13	11	<2	<2	33	<5	<3	47
93 FR-58	0.6	0.82	<3	<5	<1	11	3.63	<0.1	18	26	367	>10	<0.01	0.08	912	1	0.12	75	0.15	17	<2	<2	57	<5	<3	95
93 FR-59	1.5	0.53	<3	20	<1	<3	1.54	<0.1	31	22	627	>10	<0.01	0.07	413	1	0.14	153	0.31	76	<2	<2	37	<5	<3	107
93 FR-60	0.7	0.54	<3	20	<1	<3	1.68	<0.1	37	17	509	>10	<0.01	0.13	554	<1	0.11	107	0.22	28	<2	<2	49	<5	<3	200
93 FR-61	0.5	0.46	<3	10	<1	<3	1.26	<0.1	26	16	297	7.73	<0.01	0.10	551	<1	0.04	135	0.12	39	<2	<2	38	<5	<3	217
93 FR-62	1.3	5.80	<3	20	160	<3	4.09	<0.1	22	109	97	5.69	<0.01	2.26	2334	<1	0.02	38	0.10	545	<2	<2	73	<5	<3	240
93 FR-63	1.2	1.20	<3	10	<1	<3	2.26	<0.1	259	19	1519	>10	<0.01	0.14	899	<1	0.16	439	0.13	13	<2	<2	34	<5	<3	582
93 FR-64	1.0	0.60	<3	<5	2	<3	0.38	0.3	26	70	584	4.21	<0.01	0.39	193	<1	0.05	38	0.01	252	<2	<2	11	<5	<3	148
93 FR-65	0.3	2.35	<3	<5	105	<3	2.60	<0.1	25	67	113	3.67	<0.01	0.83	342	<1	0.15	53	0.10	<2	<2	<2	59	<5	<3	40
93 FR-66	0.2	1.91	<3	20	38	<3	2.58	<0.1	28	70	121	3.53	<0.01	0.64	307	<1	0.09	54	0.11	<2	<2	<2	39	<5	<3	36
93 FR-67	0.2	0.76	<3	10	13	<3	1.01	<0.1	30	60	132	2.93	<0.01	0.31	150	<1	0.07	46	0.04	<2	<2	<2	51	<5	<3	19
93 FR-68	0.1	2.87	<3	<5	<1	<3	3.84	<0.1	19	76	220	4.15	<0.01	0.68	344	7	0.07	36	0.09	<2	<2	<2	55	<5	<3	14
93 FR-69	0.7	4.00	<3	<5	25	<3	4.38	<0.1	19	58	112	3.97	<0.01	0.89	555	<1	0.26	37	0.08	<2	<2	<2	106	<5	<3	168
93 FR-70	0.3	1.50	<3	<5	54	<3	1.53	<0.1	28	29	215	2.47	<0.01	0.51	210	<1	0.17	16	0.05	<2	<2	<2	65	<5	<3	20
93 FR-71	0.1	4.17	<3	<5	31	<3	3.09	<0.1	29	69	151	3.54	<0.01	0.82	257	<1	0.48	45	0.06	<2	<2	<2	126	<5	<3	27
93 FR-72	1.0	4.20	<3	<5	47	<3	3.59	<0.1	75	87	947	8.46	<0.01	0.87	269	1	0.34	158	0.07	<2	<2	<2	121	<5	<3	48
93 FR-73	11.3	3.32	<3	50	<1	<3	4.16	<0.1	87	70	815	>10	<0.01	1.23	4954	2	0.13	80	0.02	223	<2	<2	4	<5	<3	905
93 FR-74	0.1	2.19	<3	<5	<1	<3	>10	<0.1	34	43	91	>10	<0.01	0.14	2366	1	0.05	14	0.01	12	<2	<2	<1	<5	<3	59
93 FR-75	0.4	2.68	<3	<5	18	<3	4.28	<0.1	16	61	64	3.16	<0.01	0.57	405	<1	0.01	11	0.07	217	<2	<2	65	<5	<3	134
93 FR-76	0.2	2.86	<3	<5	21	<3	2.06	<0.1	37	41	130	>10	<0.01	0.74	273	1	0.29	63	0.03	<2	<2	<2	142	<5	<3	30
93 FR-77	0.2	4.53	<3	<5	32	<3	3.85	<0.1	30	36	254	7.23	<0.01	0.72	243	1	0.25	37	0.06	<2	<2	<2	126	<5	<3	27
93 FR-78	0.5	3.22	<3	<5	69	<3	2.30	<0.1	16	66	59	5.22	<0.01	1.64	1748	<1	0.04	18	0.08	163	<2	<2	47	<5	<3	207
Minimum Detection	0.1	0.01	3	5	1	3	0.01	0.1	1	1	1	0.01	0.01	0.01	1	1	0.01	1	0.01	2	2	2	1	5	3	1
Maximum Detection	50.0	10.00	2000	10000	1000	1000	10.00	1000.0	20000	1000	20000	10.00	10.00	10.00	20000	1000	10.00	20000	10.00	20000	2000	1000	10000	100	1000	20000

< - Less Than Minimum > - Greater Than Maximum is - Insufficient Sample ns - No Sample *Au Analysis Done By Fire Assay Concentration / AAS Finish.

VANGEOCHEM LAB LIMITED

1630 Pandora Street, Vancouver, B.C. V5L 1L6
Ph:(604)251-5656 Fax:(604)254-5717

ICAP GEOCHEMICAL ANALYSIS

A .5 gram sample is digested with 5 ml of 3:1:2 HCL to HNO_3 to H_2O at 95 °C for 90 minutes and is diluted to 10 ml with water.
This leach is partial for Al, Ba, Ca, Cr, Fe, K, Mg, Mn, Na, P, Sn, Sr and W.

ANALYST: [signature]

REPORT #: 930020 PA   ARROWHEAD EXPLORATION SERVICES   PROJECT: 402   DATE IN: MAR 29 1993   DATE OUT: APR 14 1993   ATTENTION: MR. FAYZ YACOUB

Sample Name	Ag ppm	Al %	As ppm	*Au ppb	Ba ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %
T93 FR-79	1.2	3.70	<3	120	35	<3	2.58	14.9	37	85	46	9.62
T93 FR-80	0.3	4.89	<3	10	59	4	4.33	<0.1	21	93	17	5.44
TC93 R-101	0.4	6.32	<3	10	78	<3	0.99	<0.1	73	798	80	>10
TC93 R-102	0.3	0.39	<3	20	12	7	0.18	<0.1	2	86	41	1.15
TC93 R-103	0.8	3.50	<3	10	45	<3	2.18	<0.1	52	56	605	7.67
TC93 R-104	0.2	0.26	<3	10	7	<3	0.84	<0.1	25	64	149	7.90
TC93 R-105	0.4	2.34	<3	<5	23	<3	2.50	<0.1	41	41	184	4.45
TC93 R-106	0.4	2.14	<3	<5	3	<3	2.21	<0.1	43	42	248	4.65
TC93 R-107	0.7	2.80	<3	<5	31	8	1.42	9.3	16	133	298	4.63
TC93 R-108	0.3	2.38	<3	<5	179	<3	1.10	1.1	13	92	124	5.38
TC93 R-109	1.8	3.24	<3	<5	<1	<3	1.98	46.0	19	86	142	>10
AM 9301 ROCK 2055 515 E	1.3	5.79	<3	<5	39	<3	3.72	<0.1	36	173	296	8.84
Minimum Detection	0.1	0.01	3	5	1	3	0.01	0.1	1	1	1	0.01
Maximum Detection	50.0	10.00	2000	10000	1000	1000	10.00	1000.0	20000	1000	20000	10.00

Sample Name	K %	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P %	Pb ppm	Sb ppm	Sn ppm	Sr ppm	U ppm	W ppm	Zn ppm
T93 FR-79	<0.01	1.22	2199	1	0.14	56	0.07	34	<2	<2	26	<5	<3	1224
T93 FR-80	<0.01	1.44	1016	<1	0.02	21	0.08	39	<2	<2	41	<5	<3	88
TC93 R-101	<0.01	4.86	6275	<1	0.02	177	0.06	132	<2	<2	487	<5	<3	607
TC93 R-102	0.13	0.12	149	<1	<0.01	14	0.01	<2	<2	<2	37	<5	<3	40
TC93 R-103	<0.01	1.18	792	2	0.22	47	0.09	<2	<2	<2	74	<5	<3	94
TC93 R-104	<0.01	0.05	304	<1	0.06	55	0.04	7	<2	<2	14	<5	<3	49
TC93 R-105	<0.01	0.71	286	<1	0.25	41	0.08	14	<2	<2	72	<5	<3	52
TC93 R-106	<0.01	0.85	334	<1	0.09	54	0.08	<2	<2	<2	37	<5	<3	67
TC93 R-107	<0.01	3.08	1926	1	<0.01	44	0.08	5	<2	<2	17	<5	<3	1690
TC93 R-108	<0.01	0.89	1144	<1	0.03	16	0.05	<2	<2	<2	73	<5	<3	233
TC93 R-109	<0.01	1.90	2449	1	<0.01	13	0.07	150	<2	<2	43	<5	<3	5379
AM 9301 ROCK 2055 515 E	<0.01	1.70	1237	1	0.20	60	0.06	<2	<2	<2	136	<5	<3	335
Minimum Detection	0.01	0.01	1	1	0.01	1	0.01	2	2	2	1	5	3	1
Maximum Detection	10.00	10.00	20000	1000	10.00	20000	10.00	20000	2000	1000	10000	100	1000	20000

< - Less Than Minimum   > - Greater Than Maximum   is - Insufficient Sample   ns - No Sample   *Au Analysis Done By Fire Assay Concentration / AAS Finish.

VGC VANGEOCHEM LAB LIMITED

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BRANCH OFFICES
BATHURST, N.B.
RENO, NEVADA, U.S.A.

ASSAY ANALYTICAL REPORT

CLIENT: ARROWHEAD EXPLORATION SERVICES
ADDRESS: 900 - 999 W. Hastings St.
: Vancouver, BC
: V6C 2W2

DATE: APR 20 1993
REPORT#: 930020 AA
JOB#: 930020

PROJECT#: 402
SAMPLES ARRIVED: MAR 29 1993
REPORT COMPLETED: APR 20 1993
ANALYSED FOR: Cu Zn Ag

INVOICE#: 930020 NB
TOTAL SAMPLES: 13
REJECTS/PULPS: 90 DAYS/1 YR
SAMPLE TYPE: ROCK

SAMPLES FROM: MR. FAYZ YACOUB
COPY SENT TO: ARROWHEAD EXPLORATION SERVICES

PREPARED FOR: MR. FAYZ YACOUB

ANALYSED BY: Raymond Chan

SIGNED: ________________

Registered Provincial Assayer

GENERAL REMARK: RESULTS FAXED TO MR. FAYZ YACOUB @ 683-6958.

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REPORT NUMBER: 930020 AA JOB NUMBER: 930020 ARROWHEAD EXPLORATION SERVICES

SAMPLE #	Cu %	Zn %	Ag oz/st
T93 R-1	2.60	--	5.34
T93 R-3	--	--	2.13
T93 R-5	--	--	2.45
T93 R-7	1.92	--	9.98
T93 R-9	2.04	--	3.03
T93 R-17	--	3.28	--
T93 R-19	--	3.76	--
T93 R-20	--	2.26	--
T93 R-29	2.03	--	3.88
T93 R-34	--	12.50	--
T93 R-37	--	4.18	--
T93 R-42	--	24.90	--
T93 R-43	--	1.95	--
DETECTION LIMIT	0.01	0.01	0.01

1 Troy oz/short ton = 34.28 ppm 1 ppm = 0.0001 % ppm = parts per million < = less than

signed: ____________________

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GEOCHEMICAL ANALYTICAL REPORT

CLIENT: ARROWHEAD EXPLORATION SERVICES DATE: APR 08 1993
ADDRESS: 900 - 999 W. Hastings St.
: Vancouver, BC
: V6C 2W2

REPORT#: 930019 GA
JOB#: 930019

PROJECT#: 402
SAMPLES ARRIVED: MAR 29 1993
REPORT COMPLETED: APR 08 1993
ANALYSED FOR: Au (FA/AAS) ICP

INVOICE#: 930019 NA
TOTAL SAMPLES: 196
SAMPLE TYPE: 195 SOIL
REJECTS: DISCARDED

SAMPLES FROM: MR. FAYZ YACOUB
COPY SENT TO: ARROWHEAD EXPLORATION SERVICES

PREPARED FOR: MR. FAYZ YACOUB

ANALYSED BY: Raymond Chan

SIGNED: ________________________

GENERAL REMARK: L4+00S 8+00E - NO SAMPLE
RESULTS FAXED TO MR. FAYZ YACOUB @ 683-6958.

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REPORT NUMBER: 930019 GA JOB NUMBER: 930019 ARROWHEAD EXPLORATION SERVICES

SAMPLE #		Au ppb
L0+00N	0+50E	10
L0+00N	1+00E	30
L0+00N	1+50E	40
L0+00N	2+00E	110
L0+00N	2+50E	20
L0+00N	3+00E	20
L0+00N	3+50E	nd
L0+00N	4+00E	10
L1+00N	0+00E	nd
L1+00N	0+50E	nd
L1+00N	1+00E	nd
L1+00N	1+50E	40
L1+00N	2+00E	60
L1+00N	2+50E	30
L1+00N	3+00E	20
L1+00N	3+50E	10
L1+00N	4+00E	10
L1+00N	4+50E	nd
L1+00N	5+00E	nd
L1+00N	5+50E	nd
L1+00N	0+50W	nd
L1+00N	1+00W	nd
L1+00N	1+50W	nd
L1+00N	2+00W	nd
L1+00N	2+50W	330
L1+00N	3+00W	20
L1+50S	0+00E	nd
L1+50S	0+50E	nd
L1+50S	1+00E	nd
L1+50S	1+50E	nd
L1+50S	2+00E	nd
L1+50S	2+50E	nd
L1+50S	3+00E	nd
L1+50S	3+50E	nd
L1+50S	4+00E	nd
L1+50S	4+50E	nd
L1+50S	5+00E	nd
L2N BL		nd
L2+00N	0+50E	20
DETECTION LIMIT		5

nd = none detected -- = not analysed is = insufficient sample

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SAMPLE #	Au ppb
L2+00N 1+00E	10
L2+00N 1+50E	20
L2+00N 2+00E	nd
L2+00N 2+50E	nd
L2+00N 3+00E	nd
L2+00N 3+50E	nd
L2+00N 4+00E	nd
L2+00N 4+50E	nd
L2+00N 5+00E	nd
L2+00N 5+50E	nd
L2+00N 6+00E	nd
L2+00N 0+50W	nd
L2+00N 1+00W	nd
L2+00N 1+50W	10
L2+00N 2+00W	10
L2+00N 2+50W	30
L2+00S BL 000	10
L2+00S 0+50E	20
L2+00S 1+00E	10
L2+00S 1+50E	nd
L2+00S 2+50E	nd
L2+00S 3+00E	nd
L2+00S 3+50E	nd
L2+00S 4+00E	nd
L2+00S 4+30E	nd
L2+00S 5+00E	nd
L3+00N 0+00E	nd
L3+00N 0+50E	nd
L3+00N 1+00E	10
L3+00N 2+50E	10
L3+00N 3+00E	nd
L3+00N 3+50E	nd
L3+00N 0+50W	nd
L3+00N 1+00W	20
L3+00N 1+50W	30
L3+00N 2+00W	20
L3+00N 2+50W	nd
L3+00S 0+00E	30
L3+00S 0+50E	30
DETECTION LIMIT	5

nd = none detected -- = not analysed is = insufficient sample

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SAMPLE #	Au ppb
L3+00S 1+00E	10
L3+00S 1+50E	20
L3+00S 2+00E	30
L3+00S 2+50E	20
L3+00S 3+00E	20
L3+00S 3+50E	40
L3+00S 4+00E	30
L3+00S 4+50E	70
L3+00S 5+00E	20
L3+00S 5+50E	20
L3+00S 6+00E	30
L3+00S 6+50E	30
L3+00S 7+00E	20
L3+00S 7+50E	30
L3+00S 8+00E	130
L3+00S 8+50E	40
L3+00S 9+00E	20
L3+00S 9+50E	20
L3+00S 10+00E	30
L4+00N 0+00E	30
L4+00N 1+00E	10
L4+00N 1+50E	10
L4+00N 2+00E	20
L4+00N 2+50E	20
L4+00N 3+00E	40
L4+00N 3+50E	10
L4+00N 0+00W	20
L4+00N 0+50W	10
L4+00N 1+00W	160
L4+00N 1+50W	nd
L4+00N 2+00W	nd
L4+00N 2+50W	nd
L4+00S 0+00E BL	nd
L4+00S 0+50E	nd
L4+00S 1+00E	nd
L4+00S 1+50E	nd
L4+00S 2+00E	nd
L4+00S 2+50E	nd
L4+00S 3+00E	nd
DETECTION LIMIT	5

nd = none detected -- = not analysed is = insufficient sample

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SAMPLE #		Au ppb
L4+00S	3+50E	nd
L4+00S	4+00E	nd
L4+00S	5+00E	nd
L4+00S	5+50E	nd
L4+00S	6+00E	nd
L4+00S	6+50E	10
L4+00S	7+00E	10
L4+00S	7+50E	nd
L4+00S	8+00E	--
L4+00S	8+50E	nd
L5+00N	0+00E	nd
L5+00N	1+00E	nd
L5+00N	1+50E	nd
L5+00N	2+00E	nd
L5+00N	2+50E	nd
L5+00N	3+00E	nd
L5+00N	3+50E	nd
L5+00N	4+00E	nd
L5+00N	4+50E	10
L5+00N	5+00E	10
L5+00N	0+50W	nd
L5+00N	1+00W	nd
L5+00N	1+50W	nd
L5+00N	2+00W	nd
L5+00N	2+50W	20
L5+00S	0+00E	10
L5+00S	0+50E	10
L5+00S	1+00E	nd
L5+00S	1+50E	nd
L5+00S	2+00E	nd
L5+00S	2+50E	nd
L5+00S	3+00E	10
L5+00S	3+50E	10
L5+00S	4+00E	nd
L5+00S	4+50E	20
L5+00S	5+00E	20
L5+00S	5+50E	nd
L5+00S	6+00E	nd
L5+00S	6+50E	nd
DETECTION LIMIT		5

nd = none detected -- = not analysed is = insufficient sample

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SAMPLE #	Au ppb
L5+00S 7+00E	nd
L5+00S 7+50E	20
L5+00S 8+00E	10
L5+00S 8+50E	10
L5+00S 9+00E	20
L6+00N 1+00E	10
L6+00N 1+50E	10
L6+00N 2+00E	10
L6+00N 2+50E	20
L6+00N 3+00E	20
L6+00N 3+50E	20
L6+00N 0+25W	20
L6+00N 0+75W	10
L6+00S 6+00E	20
L6+00S 6+50E	20
L6+00S 7+00E	10
L6+00S 7+50E	20
L6+00S 8+00E	20
L6+00S 8+50E	20
L6+50S 5+50E	20
L6+50S 6+00E	10
L6+50S 6+50E	nd
L6+50S 7+00E	nd
L6+50S 7+50E	10
L7+00N BL	10
L7+00N 1+00E	nd
L7+00N 1+50E	nd
L7+00N 2+00E	nd
L7+00N 3+00E	nd
L7+00N 3+50E	nd
L7+00N 4+00E	nd
L7+00N 0+50W	nd
L7+00N 1+00W	nd
L7+00N 1+50W	20
L7+00N 2+00W	10
L7+00N 2+50W	20
L7+00S 6+00E	30
L7+00S 6+50E	20
L7+00S 7+00E	80
DETECTION LIMIT	5

nd = none detected   -- = not analysed   is = insufficient sample

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SAMPLE #	Au ppb
L7+00S 7+50E	60

DETECTION LIMIT 5

nd = none detected -- = not analysed is = insufficient sample

VANGEOCHEM LAB LIMITED
[redacted]0 Pan[redacted]treet, [redacted]ver, B[redacted]L 1L6
Ph:(604)251-5656 Fax:(604)254-5717

ICAP GEOCHEMICAL ANALYSIS

A .5 gram sample is digested with 5 ml of 3:1:2 HCL to HNO_3 to H_2O at 95 °C for 90 minutes and is diluted to 10 ml with water.
This leach is partial for Al, Ba, Ca, Cr, Fe, K, Mg, Mn, Na, P, Sn, Sr and W.

ANALYST: Ebzawal

REPORT #: 930019 PA   ARROWHEAD EXPLORATION SERVICES   PROJECT: 402   DATE IN: MAR 29 1993   DATE OUT: APR 14 1993   ATTENTION: MR. FAYZ YACOUB

Sample Name	Ag	Al	As	*Au	Ba	Bi	Ca	Cd	Co	Cr	Cu	Fe	K	Mg	Mn	Mo	Na	Ni	P	Pb	Sb	Sn	Sr	U	W	Zn
	ppm	%	ppm	ppb	ppm	ppm	%	ppm	ppm	ppm	ppm	%	%	%	ppm	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
L0+00N 0+50E	0.1	3.71	<3	10	196	5	0.26	7.6	30	29	34	3.94	<0.01	0.41	2105	1	0.01	31	0.09	<2	<2	<2	33	<5	<3	434
L0+00N 1+00E	0.6	3.51	<3	30	56	<3	1.14	6.3	73	66	321	>10	<0.01	0.39	3382	2	0.15	99	0.10	61	<2	<2	27	<5	<3	1742
L0+00N 1+50E	0.3	3.47	<3	40	161	<3	0.81	4.5	128	50	343	>10	<0.01	0.24	6513	4	0.11	102	0.09	73	<2	<2	33	<5	<3	1913
L0+00N 2+00E	1.9	2.60	<3	110	42	6	0.30	<0.1	25	30	436	>10	<0.01	0.19	600	5	0.13	19	0.08	31	<2	<2	22	<5	<3	386
L0+00N 2+50E	<0.1	4.30	<3	20	233	<3	0.21	1.0	19	25	29	4.51	<0.01	0.39	377	1	0.05	31	0.02	<2	<2	<2	22	<5	<3	645
L0+00N 3+00E	<0.1	4.68	<3	20	125	<3	0.12	0.6	20	24	31	4.42	<0.01	0.44	426	1	0.02	27	0.04	<2	<2	<2	21	<5	<3	188
L0+00N 3+50E	0.2	4.63	<3	<5	127	<3	0.10	0.3	21	30	78	4.19	<0.01	0.44	307	1	0.04	38	0.03	<2	<2	<2	17	<5	<3	153
L0+00N 4+00E	0.1	4.29	285	10	265	<3	0.16	<0.1	23	60	201	5.46	<0.01	0.47	780	1	0.04	71	0.05	8	<2	<2	21	<5	<3	255
L1+00N 0+00E	0.4	5.49	<3	<5	94	5	0.55	<0.1	120	62	390	>10	<0.01	0.36	5684	2	0.07	293	0.10	<2	<2	<2	25	<5	<3	1109
L1+00N 0+50E	0.3	2.85	<3	<5	73	<3	1.24	<0.1	65	62	352	>10	<0.01	0.17	7150	2	0.17	149	0.12	33	<2	<2	31	<5	<3	1019
L1+00N 1+00E	0.6	4.01	<3	<5	80	<3	0.90	1.3	115	65	425	>10	<0.01	0.19	8036	3	0.11	235	0.11	20	<2	<2	28	<5	<3	1425
L1+00N 1+50E	1.3	2.30	<3	40	83	<3	1.07	7.8	114	64	521	>10	<0.01	0.12	10911	3	0.10	183	0.12	33	<2	<2	26	<5	<3	1702
L1+00N 2+00E	0.3	3.38	<3	60	56	<3	0.11	<0.1	33	60	392	>10	<0.01	0.25	618	2	0.17	44	0.09	13	<2	<2	12	<5	<3	265
L1+00N 2+50E	<0.1	3.29	<3	30	114	<3	0.33	1.2	26	23	33	4.30	<0.01	0.32	1090	1	0.03	23	0.04	<2	<2	<2	24	<5	<3	236
L1+00N 3+00E	0.2	3.29	<3	20	136	<3	0.44	<0.1	37	24	104	4.90	<0.01	0.29	4928	1	<0.01	37	0.08	<2	<2	<2	27	<5	<3	262
L1+00N 3+50E	<0.1	3.17	<3	10	150	<3	0.24	<0.1	17	20	19	4.21	<0.01	0.48	833	1	0.03	17	0.02	<2	<2	<2	23	<5	<3	121
L1+00N 4+00E	0.2	2.85	<3	10	87	<3	0.10	<0.1	13	27	16	3.84	<0.01	0.37	305	1	0.04	19	0.02	7	<2	<2	13	<5	<3	157
L1+00N 4+50E	0.1	3.39	<3	<5	168	<3	0.23	0.5	15	26	19	3.96	<0.01	0.44	360	1	0.05	19	0.02	<2	<2	<2	24	<5	<3	508
L1+00N 5+00E	<0.1	3.00	<3	<5	100	4	0.33	<0.1	18	31	22	3.60	<0.01	0.37	1316	1	0.03	24	0.05	<2	<2	<2	35	<5	<3	108
L1+00N 5+50E	0.5	4.69	319	<5	78	<3	0.30	<0.1	24	16	21	4.76	<0.01	0.36	917	1	0.03	10	0.09	49	<2	<2	22	<5	<3	219
L1+00N 0+50W	0.2	3.58	23	<5	106	<3	0.52	<0.1	73	42	167	8.21	<0.01	0.39	3648	2	0.06	174	0.08	38	<2	<2	22	<5	<3	958
L1+00N 1+00W	0.8	4.07	293	<5	68	<3	1.08	<0.1	103	76	398	>10	<0.01	0.27	3610	2	0.14	333	0.13	43	<2	<2	29	<5	<3	2079
L1+00N 1+50W	0.6	3.83	70	<5	74	<3	0.53	<0.1	79	51	422	>10	<0.01	0.36	1726	3	0.16	123	0.10	43	<2	<2	25	<5	<3	1060
L1+00N 2+00W	0.3	4.09	<3	<5	122	<3	0.34	<0.1	29	31	63	6.40	<0.01	0.49	1668	1	0.05	37	0.14	<2	<2	<2	22	<5	<3	350
L1+00N 2+50W	0.3	2.74	<3	330	143	<3	0.41	<0.1	12	27	14	3.20	<0.01	0.39	1423	1	0.03	18	0.27	<2	<2	<2	29	<5	<3	160
L1+00N 3+00W	0.4	3.35	<3	20	137	<3	0.24	1.0	14	23	30	3.81	<0.01	0.46	953	1	0.03	17	0.07	<2	<2	<2	27	<5	<3	133
L1+50S 0+00E	0.2	4.38	<3	<5	132	<3	0.16	<0.1	18	27	38	4.21	<0.01	0.66	875	1	0.01	20	0.06	<2	<2	<2	23	<5	<3	180
L1+50S 0+50E	0.1	4.69	<3	<5	161	<3	0.20	<0.1	17	27	33	4.24	<0.01	0.59	698	1	0.02	20	0.06	<2	<2	<2	26	<5	<3	178
L1+50S 1+00E	0.3	3.15	<3	<5	129	3	0.17	<0.1	13	23	16	3.53	<0.01	0.44	1133	1	0.02	14	0.07	<2	<2	<2	18	<5	<3	225
L1+50S 1+50E	0.1	3.98	<3	<5	116	<3	0.15	<0.1	24	34	89	5.50	<0.01	0.35	1443	2	0.06	43	0.07	<2	<2	<2	17	<5	<3	1038
L1+50S 2+00E	<0.1	3.55	<3	<5	157	<3	0.17	<0.1	20	26	28	4.10	<0.01	0.33	909	1	0.03	35	0.05	<2	<2	<2	20	<5	<3	304
L1+50S 2+50E	0.4	3.57	<3	<5	122	<3	0.11	0.8	14	24	39	4.58	<0.01	0.16	340	1	0.06	22	0.04	<2	<2	<2	13	<5	<3	243
L1+50S 3+00E	0.4	4.09	<3	<5	88	<3	0.06	0.7	24	25	135	4.37	<0.01	0.38	408	1	0.02	44	0.05	<2	<2	<2	13	<5	<3	127
L1+50S 3+50E	0.5	4.25	<3	<5	118	<3	0.08	<0.1	25	30	157	4.23	<0.01	0.54	555	1	0.03	50	0.03	<2	<2	<2	15	<5	<3	148
L1+50S 4+00E	0.4	3.76	<3	<5	93	<3	0.06	<0.1	25	38	205	5.36	<0.01	0.35	352	1	0.07	49	0.05	12	<2	<2	11	<5	<3	158
L1+50S 4+50E	0.3	3.37	<3	<5	89	<3	0.12	<0.1	16	23	53	3.92	<0.01	0.35	420	1	0.04	23	0.04	<2	<2	<2	15	<5	<3	166
L1+50S 5+00E	0.1	4.29	<3	<5	130	<3	0.11	<0.1	18	29	169	4.71	<0.01	0.28	602	1	0.05	31	0.05	22	<2	<2	18	<5	<3	173
L2N BL	1.6	5.72	<3	<5	48	<3	0.16	<0.1	177	42	1150	>10	<0.01	0.42	1005	3	0.13	262	0.11	<2	<2	<2	17	<5	<3	1440
L2+00N 0+50E	1.4	2.58	<3	20	194	<3	0.62	<0.1	72	24	348	>10	<0.01	0.15	1973	1	0.16	48	0.16	27	<2	<2	49	<5	<3	509
Minimum Detection	0.1	0.01	3	5	1	3	0.01	0.1	1	1	1	0.01	0.01	0.01	1	1	0.01	1	0.01	2	2	2	1	5	3	1
Maximum Detection	50.0	10.00	2000	10000	1000	1000	10.00	1000.0	20000	1000	20000	10.00	10.00	10.00	20000	1000	10.00	20000	10.00	20000	2000	1000	10000	100	1000	20000

< - Less Than Minimum   > - Greater Than Maximum   is - Insufficient Sample   ns - No Sample   *Au Analysis Done By Fire Assay Concentration / AAS Finish.

VANGEOCHEM LAB LIMITED

1630 Pandora Street, Vancouver, B.C. V5L 1L6
Ph:(604)251-5656 Fax:(604)254-5717

ICAP GEOCHEMICAL ANALYSIS

A .5 gram sample is digested with 5 ml of 3:1:2 HCL to HNO_3 to H_2O at 95 °C for 90 minutes and is diluted to 10 ml with water.
This leach is partial for Al, Ba, Ca, Cr, Fe, K, Mg, Mn, Na, P, Sn, Sr and W.

ANALYST: [signature]

REPORT #: 930019 PA ARROWHEAD EXPLORATION SERVICES PROJECT: 402 DATE IN: MAR 29 1993 DATE OUT: APR 14 1993 ATTENTION: MR. FAYZ YACOUB

Sample Name	Ag	Al	As	*Au	Ba	Bi	Ca	Cd	Co	Cr	Cu	Fe	K	Mg	Mn	Mo	Na	Ni	P	Pb	Sb	Sn	Sr	U	W	Zn
	ppm	%	ppm	ppb	ppm	ppm	%	ppm	ppm	ppm	ppm	%	%	%	ppm	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
L2+00N 1+00E	0.9	5.10	<3	10	80	<3	0.35	2.7	90	33	769	>10	<0.01	0.22	1508	3	0.12	63	0.11	2	<2	<2	24	<5	<3	407
L2+00N 1+50E	0.8	4.05	<3	20	104	<3	0.45	<0.1	54	21	662	>10	<0.01	0.16	1294	2	0.10	36	0.12	12	<2	<2	25	<5	<3	322
L2+00N 2+00E	0.2	2.93	<3	<5	136	<3	0.20	<0.1	57	26	264	>10	<0.01	0.14	2407	1	0.13	45	0.11	20	<2	<2	16	<5	<3	480
L2+00N 2+50E	0.2	3.05	<3	<5	92	<3	0.10	<0.1	53	23	80	6.62	<0.01	0.29	1363	1	0.02	40	0.08	<2	<2	<2	13	<5	<3	513
L2+00N 3+00E	0.4	3.52	<3	<5	291	<3	0.68	0.5	76	25	219	7.52	<0.01	0.34	4807	1	<0.01	64	0.11	16	<2	<2	48	<5	<3	1001
L2+00N 3+50E	0.3	2.27	<3	<5	132	<3	0.34	<0.1	25	14	20	4.00	<0.01	0.31	2553	1	<0.01	14	0.06	58	<2	<2	31	<5	<3	367
L2+00N 4+00E	0.2	6.07	<3	<5	78	<3	0.19	<0.1	20	19	25	3.66	<0.01	0.44	1105	1	<0.01	15	0.06	<2	<2	<2	17	<5	<3	109
L2+00N 4+50E	0.1	3.37	<3	<5	72	<3	0.23	0.4	15	14	10	3.44	<0.01	0.30	676	1	<0.01	10	0.05	<2	<2	<2	19	<5	<3	80
L2+00N 5+00E	0.1	2.57	<3	<5	84	<3	0.12	<0.1	9	13	7	3.51	<0.01	0.31	268	1	0.01	8	0.02	<2	<2	<2	15	<5	<3	83
L2+00N 5+50E	0.1	2.97	<3	<5	140	<3	0.17	0.4	13	11	8	3.48	<0.01	0.19	738	1	<0.01	5	0.03	8	<2	<2	24	<5	<3	267
L2+00N 6+00E	0.2	3.35	<3	<5	153	<3	0.16	0.7	13	14	14	3.66	<0.01	0.39	595	1	0.01	10	0.03	4	<2	<2	22	<5	<3	231
L2+00N 0+50W	0.3	2.77	<3	<5	99	<3	0.41	<0.1	38	28	116	5.32	<0.01	0.62	2625	1	0.03	36	0.08	25	<2	<2	28	<5	<3	352
L2+00N 1+00W	0.4	4.30	217	<5	55	<3	0.83	<0.1	134	52	200	6.18	<0.01	0.45	796	2	0.08	142	0.04	42	<2	<2	31	<5	<3	874
L2+00N 1+50W	1.5	2.19	61	10	75	<3	1.51	5.9	343	23	407	3.05	<0.01	0.22	4109	1	0.01	241	0.17	22	<2	<2	39	<5	<3	1530
L2+00N 2+00W	0.6	2.76	36	10	63	<3	0.57	<0.1	302	32	295	6.79	<0.01	0.19	4328	2	0.04	156	0.10	45	<2	<2	25	<5	<3	1207
L2+00N 2+50W	0.7	2.87	<3	30	74	<3	0.72	<0.1	56	28	108	6.34	<0.01	0.40	1562	1	0.03	67	0.15	19	<2	<2	47	<5	<3	505
L2+00S BL 000	0.3	3.65	<3	10	126	<3	0.16	<0.1	14	15	35	3.54	<0.01	0.66	1212	1	<0.01	17	0.06	<2	<2	<2	21	<5	<3	163
L2+00S 0+50E	0.2	2.99	<3	20	160	<3	0.16	<0.1	11	14	14	2.67	<0.01	0.39	1947	1	<0.01	8	0.16	<2	<2	<2	15	<5	<3	217
L2+00S 1+00E	0.2	1.58	<3	10	141	<3	0.29	<0.1	8	7	5	1.99	<0.01	0.26	2758	<1	<0.01	4	0.06	2	<2	<2	23	<5	<3	171
L2+00S 1+50E	1.0	1.53	<3	<5	86	<3	0.46	<0.1	21	33	177	>10	<0.01	0.11	4194	2	0.14	32	0.14	118	<2	<2	24	<5	<3	614
L2+00S 2+50E	0.4	3.03	<3	<5	80	<3	0.14	<0.1	28	21	162	4.72	<0.01	0.19	409	1	0.02	41	0.05	<2	<2	<2	15	<5	<3	211
L2+00S 3+00E	0.8	3.92	<3	<5	112	<3	0.22	<0.1	33	25	309	5.83	<0.01	0.23	835	1	0.04	52	0.06	<2	<2	<2	21	<5	<3	242
L2+00S 3+50E	0.3	2.82	<3	<5	76	<3	0.48	<0.1	32	22	149	4.24	<0.01	0.56	619	1	0.09	42	0.05	<2	<2	<2	33	<5	<3	195
L2+00S 4+00E	0.2	3.95	<3	<5	144	<3	0.18	<0.1	52	24	230	4.97	<0.01	0.31	637	1	<0.01	68	0.04	7	<2	<2	17	<5	<3	350
L2+00S 4+30E	0.2	2.43	<3	<5	91	<3	0.15	<0.1	26	14	47	3.23	<0.01	0.23	1600	1	<0.01	16	0.04	3	<2	<2	17	<5	<3	148
L2+00S 5+00E	0.7	4.48	<3	<5	127	<3	0.13	<0.1	28	26	279	4.91	<0.01	0.21	694	2	0.03	47	0.05	12	<2	<2	13	<5	<3	299
L3+00N 0+00E	0.9	3.77	<3	<5	97	<3	0.33	<0.1	65	27	549	>10	<0.01	0.13	945	2	0.25	44	0.26	27	<2	<2	27	<5	<3	298
L3+00N 0+50E	1.0	5.03	<3	<5	46	<3	0.45	<0.1	50	32	896	>10	<0.01	0.21	557	4	0.18	54	0.09	15	<2	<2	22	<5	<3	249
L3+00N 1+00E	1.2	8.27	<3	10	48	9	0.39	<0.1	43	93	1238	>10	<0.01	0.33	492	6	0.30	47	0.17	58	20	<2	15	<5	<3	215
L3+00N 2+50E	0.3	2.53	<3	10	89	<3	0.09	0.9	11	20	45	3.39	<0.01	0.33	793	1	<0.01	15	0.11	<2	<2	<2	12	<5	<3	120
L3+00N 3+00E	0.2	3.20	<3	<5	86	<3	0.03	<0.1	12	21	29	3.61	<0.01	0.35	479	1	<0.01	17	0.05	<2	<2	<2	11	<5	<3	183
L3+00N 3+50E	0.1	3.15	<3	<5	65	<3	0.05	0.4	13	19	30	3.44	<0.01	0.61	468	1	<0.01	18	0.03	<2	<2	<2	13	<5	<3	84
L3+00N 0+50W	0.6	3.13	<3	<5	56	<3	0.62	<0.1	19	39	362	9.04	<0.01	0.67	576	2	0.14	24	0.09	<2	<2	<2	36	<5	<3	187
L3+00N 1+00W	0.9	6.62	<3	20	22	<3	0.19	<0.1	37	17	740	5.14	<0.01	0.17	560	2	0.01	26	0.16	<2	<2	<2	11	<5	<3	108
L3+00N 1+50W	0.6	6.68	<3	30	28	<3	0.18	<0.1	26	23	653	9.71	<0.01	0.18	878	3	0.08	32	0.22	<2	<2	<2	11	<5	<3	208
L3+00N 2+00W	0.5	5.64	<3	20	34	<3	0.30	<0.1	41	29	789	>10	<0.01	0.25	792	3	0.10	42	0.17	33	<2	<2	18	<5	<3	231
L3+00N 2+50W	0.3	3.17	<3	<5	35	<3	0.54	<0.1	149	39	761	5.98	<0.01	0.86	1957	1	0.02	58	0.09	39	<2	<2	22	<5	<3	247
L3+00S 0+00E	0.7	3.92	<3	30	73	<3	0.09	<0.1	13	28	150	3.65	<0.01	0.83	419	1	<0.01	19	0.07	<2	<2	<2	20	<5	<3	144
L3+00S 0+50E	0.5	6.51	<3	30	184	7	0.37	<0.1	59	143	348	8.25	<0.01	0.67	1638	4	0.08	110	0.14	77	7	<2	32	<5	<3	1234
Minimum Detection	0.1	0.01	3	5	1	3	0.01	0.1	1	1	1	0.01	0.01	0.01	1	1	0.01	1	0.01	2	2	2	1	5	3	1
Maximum Detection	50.0	10.00	2000	10000	1000	1000	10.00	1000.0	20000	1000	20000	10.00	10.00	10.00	20000	1000	10.00	20000	10.00	20000	2000	[illegible]	10000	100	1000	20000

VANGEOCHEM LAB LIMITED

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ICAP GEOCHEMICAL ANALYSIS

A .5 gram sample is digested with 5 ml of 3:1:2 HCL to HNO_3 to H_2O at 95 °C for 90 minutes and is diluted to 10 ml with water.
This leach is partial for Al, Ba, Ca, Cr, Fe, K, Mg, Mn, Na, P, Sn, Sr and W.

ANALYST: [signature]

REPORT #: 930019 PA   ARROWHEAD EXPLORATION SERVICES   PROJECT: 402   DATE IN: MAR 29 1993   DATE OUT: APR 14 1993   ATTENTION: MR. FAYZ YACOUB

Sample Name	Ag	Al	As	*Au	Ba	Bi	Ca	Cd	Co	Cr	Cu	Fe	K	Mg	Mn	Mo	Na	Ni	P	Pb	Sb	Sn	Sr	U	W	Zn
	ppm	%	ppm	ppb	ppm	ppm	%	ppm	ppm	ppm	ppm	%	%	%	ppm	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
L3+00S 1+00E	0.8	3.23	<3	10	111	<3	0.28	5.4	39	33	226	4.51	<0.01	0.57	1151	2	0.04	55	0.10	32	<2	<2	27	<5	<3	719
L3+00S 1+50E	0.7	2.35	<3	20	53	<3	1.54	<0.1	29	41	359	6.39	<0.01	0.71	1203	1	0.08	47	0.06	46	<2	<2	23	<5	<3	399
L3+00S 2+00E	0.6	3.70	<3	30	171	<3	0.34	<0.1	44	35	160	5.93	<0.01	0.48	1762	2	0.07	78	0.07	274	<2	<2	36	<5	<3	1123
L3+00S 2+50E	0.4	3.34	<3	20	231	<3	0.19	<0.1	29	24	109	4.79	<0.01	0.45	1578	1	0.03	54	0.10	51	<2	<2	49	<5	<3	666
L3+00S 3+00E	2.1	4.54	<3	20	307	<3	0.22	0.2	39	41	459	9.46	<0.01	0.40	1036	2	0.11	69	0.08	95	<2	<2	28	<5	<3	1700
L3+00S 3+50E	2.5	4.40	<3	40	194	<3	0.35	<0.1	71	43	925	9.26	<0.01	0.48	1550	2	0.09	58	0.08	96	<2	<2	35	<5	<3	1220
L3+00S 4+00E	3.2	4.17	<3	30	97	<3	0.18	<0.1	40	35	723	6.57	<0.01	0.61	717	5	0.06	109	0.05	31	<2	<2	22	<5	<3	656
L3+00S 4+50E	30.0	2.04	<3	70	49	<3	0.35	<0.1	33	54	2283	>10	<0.01	0.11	1141	7	0.33	25	0.15	240	<2	<2	23	<5	<3	598
L3+00S 5+00E	1.9	4.37	<3	20	103	<3	0.24	<0.1	27	33	590	9.18	<0.01	0.24	829	2	0.12	43	0.09	115	<2	<2	21	<5	<3	1263
L3+00S 5+50E	1.0	4.66	<3	20	106	<3	0.15	<0.1	38	26	420	6.40	<0.01	0.39	751	2	0.08	60	0.07	9	<2	<2	16	<5	<3	764
L3+00S 6+00E	0.6	3.98	<3	30	122	<3	0.14	<0.1	24	28	188	5.43	<0.01	0.40	538	2	0.07	41	0.04	<2	<2	<2	17	<5	<3	697
L3+00S 6+50E	0.5	3.77	<3	30	106	<3	0.17	0.1	25	27	124	4.26	<0.01	0.48	755	1	0.05	47	0.04	24	<2	<2	18	<5	<3	1392
L3+00S 7+00E	0.5	3.88	<3	20	149	<3	0.19	<0.1	30	29	122	4.21	<0.01	0.36	615	2	0.07	64	0.03	<2	<2	<2	21	<5	<3	2335
L3+00S 7+50E	0.2	3.25	<3	30	124	<3	0.20	3.1	53	24	81	3.72	<0.01	0.30	2272	2	0.02	40	0.07	83	<2	<2	18	<5	<3	1663
L3+00S 8+00E	1.3	2.89	<3	130	146	<3	0.10	1.5	12	25	75	3.31	<0.01	0.35	716	1	0.02	30	0.03	56	<2	<2	13	<5	<3	732
L3+00S 8+50E	1.0	3.64	<3	40	101	<3	0.07	0.8	67	29	679	4.17	<0.01	0.22	3340	2	<0.01	92	0.05	46	<2	<2	11	<5	<3	1528
L3+00S 9+00E	3.1	4.58	<3	20	76	<3	0.05	<0.1	26	58	775	7.11	<0.01	0.69	1184	3	0.07	55	0.07	208	<2	<2	14	<5	<3	624
L3+00S 9+50E	3.3	3.73	<3	20	46	<3	0.13	<0.1	5	66	843	9.79	<0.01	0.43	460	5	0.12	23	0.08	118	<2	<2	14	<5	<3	203
L3+00S 10+00E	0.8	2.25	<3	30	71	<3	0.06	<0.1	6	15	45	2.33	<0.01	0.33	649	2	0.01	14	0.04	<2	<2	<2	9	<5	<3	159
L4+00N 0+00E	1.2	4.29	<3	30	84	<3	0.20	<0.1	115	31	1209	>10	<0.01	0.17	982	3	0.13	53	0.12	16	<2	<2	23	<5	<3	750
L4+00N 1+00E	0.6	2.52	<3	10	97	<3	0.16	<0.1	43	32	456	8.46	<0.01	0.21	547	2	0.11	39	0.06	10	<2	<2	13	<5	<3	251
L4+00N 1+50E	0.4	2.53	<3	10	155	<3	0.30	<0.1	35	46	328	8.49	<0.01	0.35	793	3	0.09	51	0.07	11	<2	<2	30	<5	<3	280
L4+00N 2+00E	0.3	3.44	<3	20	132	<3	0.34	<0.1	35	37	53	5.82	<0.01	0.46	2631	2	0.02	34	0.08	10	<2	<2	32	<5	<3	356
L4+00N 2+50E	0.3	3.43	<3	20	64	<3	0.60	<0.1	15	22	34	3.48	<0.01	0.41	832	1	<0.01	20	0.04	<2	<2	<2	29	<5	<3	97
L4+00N 3+00E	0.3	3.85	<3	40	61	<3	0.07	<0.1	13	22	48	3.62	<0.01	0.30	555	1	0.02	15	0.08	<2	<2	<2	11	<5	<3	94
L4+00N 3+50E	0.2	2.85	<3	10	157	<3	0.15	<0.1	12	15	17	3.52	<0.01	0.21	1086	1	0.02	8	0.11	<2	<2	<2	19	<5	<3	139
L4+00N 0+00W	1.0	4.90	7	20	69	<3	0.09	<0.1	101	37	1014	>10	<0.01	0.22	1215	4	0.15	70	0.09	<2	<2	<2	12	<5	<3	664
L4+00N 0+50W	1.1	3.80	<3	10	63	<3	0.17	<0.1	65	59	712	9.59	<0.01	0.28	616	3	0.11	82	0.07	8	<2	<2	17	<5	<3	663
L4+00N 1+00W	0.9	3.26	<3	160	109	<3	0.38	<0.1	64	35	416	9.78	<0.01	0.31	1313	2	0.13	58	0.06	27	<2	<2	32	<5	<3	1116
L4+00N 1+50W	1.4	2.42	<3	<5	102	<3	0.55	1.4	89	22	542	5.90	<0.01	0.17	3274	1	0.05	81	0.12	13	<2	<2	33	<5	<3	691
L4+00N 2+00W	1.1	5.94	<3	<5	84	<3	0.17	<0.1	68	42	934	>10	<0.01	0.41	481	5	0.15	114	0.10	9	<2	<2	33	<5	<3	2432
L4+00N 2+50W	0.9	4.05	<3	<5	91	<3	0.30	<0.1	105	42	663	>10	<0.01	0.23	1524	3	0.19	116	0.10	24	<2	<2	29	<5	<3	1006
L4+00S 0+00E BL	0.6	3.13	<3	<5	110	<3	0.20	<0.1	14	27	121	3.52	<0.01	0.58	655	1	0.01	23	0.16	<2	<2	<2	25	<5	<3	156
L4+00S 0+50E	0.7	0.83	<3	<5	82	<3	0.17	<0.1	4	19	20	1.12	0.35	0.11	236	4	0.01	16	0.10	<2	<2	<2	20	<5	<3	60
L4+00S 1+00E	0.5	2.71	<3	<5	123	<3	0.19	<0.1	10	23	101	2.93	<0.01	0.45	709	1	0.02	13	0.18	<2	<2	<2	19	<5	<3	175
L4+00S 1+50E	0.5	1.63	<3	<5	92	<3	0.15	<0.1	6	12	21	2.24	<0.01	0.20	569	1	0.01	7	0.06	2	<2	<2	12	<5	<3	139
L4+00S 2+00E	1.5	2.91	<3	<5	58	<3	0.09	<0.1	18	20	701	3.56	<0.01	0.35	380	1	0.05	34	0.08	25	<2	<2	13	<5	<3	745
L4+00S 2+50E	0.4	2.66	<3	<5	166	<3	0.11	0.3	12	16	52	2.73	<0.01	0.38	1159	1	<0.01	23	0.04	<2	<2	<2	16	<5	<3	204
L4+00S 3+00E	0.1	2.89	<3	<5	304	<3	0.30	<0.1	17	17	39	3.24	<0.01	0.49	2860	1	<0.01	20	0.10	<2	<2	<2	42	<5	<3	223
Minimum Detection	0.1	0.01	3	5	1	3	0.01	0.1	1	1	1	0.01	0.01	0.01	1	1	0.01	1	0.01	2	2	2	1	5	3	1

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ICAP GEOCHEMICAL ANALYSIS

A .5 gram sample is digested with 5 ml of 3:1:2 HCL to HNO_3 to H_2O at 95 °C for 90 minutes and is diluted to 10 ml with water.
This leach is partial for Al, Ba, Ca, Cr, Fe, K, Mg, Mn, Na, P, Sn, Sr and W.

ANALYST: [signature]

REPORT #: 930019 PA ARROWHEAD EXPLORATION SERVICES PROJECT: 402 DATE IN: MAR 29 1993 DATE OUT: APR 14 1993 ATTENTION: MR. FAYZ YACOUB

Sample Name	Ag	Al	As	*Au	Ba	Bi	Ca	Cd	Co	Cr	Cu	Fe	K	Mg	Mn	Mo	Na	Ni	P	Pb	Sb	Sn	Sr	U	W	Zn
	ppm	%	ppm	ppb	ppm	ppm	%	ppm	ppm	ppm	ppm	%	%	%	ppm	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
L4+00S 3+50E	0.2	2.83	<3	<5	129	<3	0.15	2.6	18	26	63	3.49	<0.01	0.52	1002	1	0.02	31	0.08	6	<2	<2	23	<5	<3	281
L4+00S 4+00E	0.5	2.67	<3	<5	129	<3	0.12	<0.1	16	25	114	3.46	<0.01	0.68	702	1	0.01	27	0.03	4	<2	<2	19	<5	<3	289
L4+00S 5+00E	1.2	2.80	<3	<5	67	<3	0.41	0.8	24	41	227	9.63	<0.01	0.37	1617	2	0.13	46	0.08	70	<2	<2	12	<5	<3	1615
L4+00S 5+50E	0.5	2.64	<3	<5	71	<3	0.37	<0.1	17	52	67	3.55	<0.01	0.85	1002	1	0.05	63	0.06	37	<2	<2	23	<5	<3	591
L4+00S 6+00E	0.4	3.04	<3	<5	98	<3	0.22	<0.1	24	30	51	3.54	<0.01	0.31	1347	1	0.06	52	0.08	47	<2	<2	19	<5	<3	1360
L4+00S 6+50E	1.4	3.29	<3	10	130	<3	0.18	0.2	30	30	181	4.28	<0.01	0.41	1560	2	0.06	41	0.08	159	<2	<2	18	<5	<3	1154
L4+00S 7+00E	1.5	2.62	<3	10	58	<3	0.30	<0.1	14	30	190	4.37	<0.01	0.60	648	1	0.07	31	0.06	168	<2	<2	24	<5	<3	668
L4+00S 7+50E	0.9	3.29	<3	<5	198	<3	0.20	1.5	23	43	198	4.58	<0.01	0.42	2216	2	0.04	58	0.08	208	<2	<2	27	<5	<3	1006
L4+00S 8+00E	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
L4+00S 8+50E	1.0	3.14	<3	<5	80	<3	0.43	<0.1	29	90	528	5.69	<0.01	1.09	1441	2	0.06	78	0.06	216	<2	<2	41	<5	<3	595
L5+00N 0+00E	1.2	3.71	1564	<5	116	<3	0.31	<0.1	89	34	1360	8.39	<0.01	0.26	1908	3	0.10	88	0.10	22	<2	<2	27	<5	<3	1048
L5+00N 1+00E	0.4	1.96	<3	<5	203	<3	0.23	<0.1	28	22	154	3.54	<0.01	0.32	2514	1	0.02	30	0.04	14	<2	<2	24	<5	<3	369
L5+00N 1+50E	0.1	4.27	<3	<5	112	<3	0.17	<0.1	33	19	41	3.46	<0.01	0.30	1145	2	<0.01	25	0.05	8	<2	<2	21	<5	<3	419
L5+00N 2+00E	0.2	1.94	<3	<5	122	<3	0.20	<0.1	25	17	65	3.34	<0.01	0.16	6088	1	<0.01	20	0.09	11	<2	<2	23	<5	<3	388
L5+00N 2+50E	<0.1	2.39	<3	<5	119	<3	0.11	<0.1	14	19	17	3.22	<0.01	0.34	1112	1	0.01	20	0.04	<2	<2	<2	16	<5	<3	124
L5+00N 3+00E	<0.1	1.67	<3	<5	90	<3	0.11	<0.1	8	14	11	2.39	<0.01	0.34	411	1	0.01	11	0.05	<2	<2	<2	16	<5	<3	97
L5+00N 3+50E	<0.1	2.19	<3	<5	60	<3	0.06	<0.1	7	16	12	2.91	<0.01	0.25	309	1	0.03	8	0.03	<2	<2	<2	10	<5	<3	71
L5+00N 4+00E	0.2	1.84	<3	<5	111	<3	0.08	<0.1	19	16	13	3.06	<0.01	0.12	2195	1	<0.01	9	0.04	17	<2	<2	12	<5	<3	164
L5+00N 4+50E	0.2	2.10	<3	10	128	<3	0.12	<0.1	12	15	12	2.78	<0.01	0.17	759	1	<0.01	8	0.02	10	<2	<2	36	<5	<3	189
L5+00N 5+00E	0.1	1.62	<3	10	80	<3	0.08	<0.1	8	12	9	2.20	<0.01	0.13	910	1	0.01	4	0.05	6	<2	<2	17	<5	<3	89
L5+00N 0+50W	0.6	2.69	969	<5	81	<3	0.20	<0.1	28	30	410	5.43	<0.01	0.57	934	2	0.06	39	0.07	20	<2	<2	21	<5	<3	884
L5+00N 1+00W	0.5	2.10	757	<5	98	<3	0.43	<0.1	18	21	215	3.90	<0.01	0.46	1298	1	0.01	26	0.07	30	<2	<2	28	<5	<3	652
L5+00N 1+50W	0.4	1.77	552	<5	98	<3	0.46	<0.1	17	21	182	3.27	<0.01	0.45	1480	1	0.01	22	0.07	26	<2	<2	27	<5	<3	488
L5+00N 2+00W	0.3	2.67	201	<5	86	<3	0.44	<0.1	37	34	340	5.91	<0.01	0.44	1138	2	0.09	33	0.12	21	<2	<2	45	<5	<3	403
L5+00N 2+50W	0.6	2.00	<3	20	52	<3	0.67	2.5	52	37	479	7.53	<0.01	0.35	1243	2	0.14	49	0.05	75	<2	<2	32	<5	<3	636
L5+00S 0+00E	0.4	2.40	<3	10	65	<3	0.28	<0.1	14	36	130	3.10	<0.01	0.87	600	1	0.03	26	0.07	<2	<2	<2	27	<5	<3	124
L5+00S 0+50E	0.5	3.41	<3	10	82	<3	0.07	<0.1	13	27	88	3.33	<0.01	0.59	648	1	<0.01	20	0.11	<2	<2	<2	18	<5	<3	162
L5+00S 1+00E	0.6	2.83	<3	<5	99	<3	0.13	<0.1	11	21	83	2.81	<0.01	0.38	1195	1	0.01	12	0.28	<2	<2	<2	17	<5	<3	185
L5+00S 1+50E	0.5	2.73	<3	<5	86	<3	0.09	<0.1	10	22	86	2.96	<0.01	0.39	422	1	0.01	19	0.11	<2	<2	<2	18	<5	<3	206
L5+00S 2+00E	0.5	5.26	<3	<5	71	<3	0.14	<0.1	22	28	189	3.11	<0.01	0.60	1075	3	<0.01	30	0.18	<2	<2	<2	18	<5	<3	267
L5+00S 2+50E	0.8	3.97	<3	<5	60	<3	0.04	<0.1	14	25	112	3.69	<0.01	0.69	682	2	0.03	32	0.07	19	<2	<2	12	<5	<3	545
L5+00S 3+00E	0.9	3.48	<3	10	71	<3	0.08	<0.1	13	27	63	3.84	<0.01	0.57	524	2	0.05	38	0.06	10	<2	<2	13	<5	<3	850
L5+00S 3+50E	0.8	2.77	<3	10	77	<3	0.07	<0.1	15	33	83	4.39	<0.01	0.54	790	2	0.06	38	0.07	50	<2	<2	14	<5	<3	887
L5+00S 4+00E	0.6	2.02	<3	<5	93	<3	0.19	<0.1	14	25	34	3.82	<0.01	0.38	628	1	0.06	22	0.07	38	<2	<2	16	<5	<3	800
L5+00S 4+50E	0.5	2.50	<3	20	125	<3	0.09	<0.1	17	31	94	3.79	<0.01	0.67	686	1	0.03	28	0.04	10	<2	<2	20	<5	<3	516
L5+00S 5+00E	0.6	2.57	<3	20	94	<3	0.10	<0.1	18	30	106	3.62	<0.01	0.72	709	1	0.02	29	0.04	5	<2	<2	18	<5	<3	369
L5+00S 5+50E	0.6	4.21	<3	<5	81	<3	0.11	<0.1	14	33	138	3.88	<0.01	0.68	600	2	0.04	46	0.07	7	<2	<2	14	<5	<3	610
L5+00S 6+00E	0.3	2.57	<3	<5	114	<3	0.09	<0.1	16	30	132	3.55	<0.01	0.79	638	1	0.02	31	0.03	11	<2	<2	18	<5	<3	448
L5+00S 6+50E	0.3	3.10	<3	<5	129	<3	0.07	<0.1	13	42	122	3.27	<0.01	0.64	725	1	0.02	48	0.03	16	<2	<2	15	<5	<3	585
Minimum Detection	0.1	0.01	3	5	1	3	0.01	0.1	1	1	1	0.01	0.01	0.01	1	1	0.01	1	0.01	2	2	2	1	5	3	1

VANGEOCHEM LAB LIMITED
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ICAP GEOCHEMICAL ANALYSIS

A .5 gram sample is digested with 5 ml of 3:1:2 HCL to HNO_3 to H_2O at 95 °C for 90 minutes and is diluted to 10 ml with water.
This leach is partial for Al, Ba, Ca, Cr, Fe, K, Mg, Mn, Na, P, Sn, Sr and W.

ANALYST: [signature]

REPORT #: 930019 PA   ARROWHEAD EXPLORATION SERVICES   PROJECT: 402   DATE IN: MAR 29 1993   DATE OUT: APR 14 1993   ATTENTION: MR. FAYZ YACOUB

Sample Name	Ag	Al	As	*Au	Ba	Bi	Ca	Cd	Co	Cr	Cu	Fe	K	Mg	Mn	Mo	Na	Ni	P	Pb	Sb	Sn	Sr	U	W	Zn
	ppm	%	ppm	ppb	ppm	ppm	%	ppm	ppm	ppm	ppm	%	%	%	ppm	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
L5+00S 7+00E	0.8	5.94	<3	<5	183	<3	0.71	7.1	45	94	783	7.83	<0.01	1.37	1551	3	0.07	85	0.11	169	<2	<2	64	<5	<3	908
L5+00S 7+50E	1.5	5.81	<3	20	141	<3	0.49	<0.1	40	72	1227	8.61	<0.01	1.04	2031	5	0.07	67	0.15	197	<2	<2	33	<5	<3	933
L5+00S 8+00E	1.0	6.47	<3	10	143	<3	0.45	<0.1	33	69	500	7.10	<0.01	0.82	738	2	0.06	66	0.09	84	<2	<2	42	<5	<3	439
L5+00S 8+50E	0.4	6.95	<3	10	115	<3	0.35	1.7	29	51	648	6.50	<0.01	0.62	596	2	0.06	51	0.06	75	<2	<2	31	<5	<3	387
L5+00S 9+00E	0.4	7.53	<3	20	71	<3	0.34	<0.1	27	71	1291	8.12	<0.01	1.35	722	4	0.04	62	0.06	69	<2	<2	30	<5	<3	334
L6+00N 1+00E	0.2	2.98	<3	10	207	<3	1.47	<0.1	33	31	77	4.27	<0.01	0.66	2475	<1	0.03	26	0.09	27	<2	<2	89	<5	<3	345
L6+00N 1+50E	0.2	3.38	<3	10	110	<3	0.37	<0.1	34	25	39	5.27	<0.01	0.22	1223	<1	0.05	11	0.05	13	<2	<2	23	<5	<3	234
L6+00N 2+00E	0.1	5.13	<3	10	149	<3	0.46	0.5	27	29	32	5.23	<0.01	0.51	960	2	0.05	23	0.06	4	<2	<2	33	<5	<3	212
L6+00N 2+50E	0.2	4.35	<3	20	277	<3	0.30	1.7	43	31	72	6.78	<0.01	0.29	2274	1	0.04	17	0.08	41	<2	<2	35	<5	<3	348
L6+00N 3+00E	0.1	4.56	<3	20	245	<3	0.12	1.3	43	30	32	6.85	<0.01	0.30	2449	1	0.05	23	0.08	50	<2	<2	19	<5	<3	375
L6+00N 3+50E	0.1	4.14	<3	20	126	<3	0.32	<0.1	20	31	16	4.76	<0.01	0.51	545	1	0.04	22	0.03	<2	<2	<2	28	<5	<3	80
L6+00N 0+25W	0.5	7.38	<3	20	208	<3	0.54	<0.1	28	23	59	7.08	<0.01	0.49	1607	1	0.06	13	0.08	65	<2	<2	41	<5	<3	877
L6+00N 0+75W	0.7	6.21	<3	10	105	<3	0.81	5.9	78	42	340	7.99	<0.01	0.37	2116	1	0.09	46	0.07	194	<2	<2	42	<5	<3	2049
L6+00S 6+00E	1.4	6.55	<3	20	234	<3	0.31	<0.1	34	108	1271	9.36	<0.01	1.10	1195	4	0.07	83	0.14	126	<2	<2	25	<5	<3	471
L6+00S 6+50E	0.2	3.22	<3	20	265	<3	0.46	<0.1	22	29	63	4.04	<0.01	0.53	741	<1	0.04	23	0.05	8	<2	<2	35	<5	<3	5
L6+00S 7+00E	0.4	5.29	<3	10	212	<3	0.36	1.5	32	42	261	5.35	<0.01	0.84	896	2	0.04	46	0.06	12	<2	<2	29	<5	<3	346
L6+00S 7+50E	0.3	5.81	<3	20	63	<3	0.22	<0.1	33	232	451	>10	<0.01	0.97	532	2	0.10	139	0.11	17	<2	<2	24	<5	<3	127
L6+00S 8+00E	0.4	4.54	<3	20	46	<3	0.21	<0.1	16	50	463	>10	<0.01	0.34	354	2	0.15	22	0.18	30	<2	<2	23	<5	<3	91
L6+00S 8+50E	0.5	7.03	<3	20	250	<3	0.15	<0.1	25	64	629	>10	<0.01	0.74	329	3	0.10	46	0.11	<2	<2	<2	24	<5	<3	109
L6+50S 5+50E	1.0	4.26	<3	20	774	<3	0.77	<0.1	31	60	546	7.29	<0.01	0.72	1106	2	0.07	44	0.24	60	<2	<2	32	<5	<3	252
L6+50S 6+00E	0.4	2.77	<3	10	129	<3	0.69	<0.1	22	54	135	5.77	<0.01	0.72	787	1	0.05	27	0.19	60	<2	<2	35	<5	<3	160
L6+50S 6+50E	0.3	4.28	<3	<5	182	<3	0.36	<0.1	28	50	139	5.36	<0.01	1.22	1005	<1	0.02	39	0.07	<2	<2	<2	36	<5	<3	156
L6+50S 7+00E	0.4	4.44	<3	<5	210	<3	0.48	1.0	38	52	208	5.21	<0.01	0.71	1096	1	0.04	49	0.08	10	<2	<2	32	<5	<3	247
L6+50S 7+50E	0.3	5.26	<3	10	86	<3	0.66	<0.1	58	267	361	6.59	<0.01	1.77	689	1	0.04	300	0.10	27	<2	<2	43	<5	<3	284
L7+00N BL	0.2	7.42	<3	10	81	<3	0.19	0.5	22	41	50	4.81	<0.01	0.75	499	1	0.06	23	0.04	<2	<2	<2	18	<5	<3	173
L7+00N 1+00E	0.5	4.25	<3	<5	126	<3	0.51	<0.1	62	29	62	7.55	<0.01	0.38	1729	1	0.07	30	0.09	14	<2	<2	34	<5	<3	440
L7+00N 1+50E	0.6	4.88	<3	<5	171	<3	0.42	1.6	41	32	52	5.22	<0.01	0.48	2130	1	0.05	36	0.08	5	<2	<2	37	<5	<3	362
L7+00N 2+00E	0.2	4.73	<3	<5	202	<3	0.35	0.2	27	34	19	5.20	<0.01	0.46	1252	1	0.05	35	0.13	3	<2	<2	30	<5	<3	490
L7+00N 3+00E	0.3	5.89	<3	<5	206	<3	0.83	<0.1	30	31	32	4.56	<0.01	0.38	1083	1	0.04	36	0.05	<2	<2	<2	80	<5	<3	177
L7+00N 3+50E	0.2	3.54	<3	<5	245	<3	0.27	<0.1	28	28	15	4.57	<0.01	0.23	3385	<1	0.02	20	0.08	5	<2	<2	33	<5	<3	277
L7+00N 4+00E	0.1	2.50	<3	<5	73	<3	0.22	<0.1	19	18	18	3.76	<0.01	0.17	465	<1	0.06	14	0.04	15	<2	<2	22	<5	<3	81
L7+00N 0+50W	0.1	1.98	<3	<5	209	<3	0.35	<0.1	19	14	78	4.71	<0.01	0.21	349	1	0.07	4	0.03	8	<2	<2	24	<5	<3	298
L7+00N 1+00W	0.3	5.45	<3	<5	145	<3	0.47	<0.1	35	33	363	9.42	<0.01	0.25	1030	1	0.10	45	0.18	<2	<2	<2	33	<5	<3	469
L7+00N 1+50W	0.2	6.08	<3	20	97	<3	0.70	<0.1	58	45	464	>10	<0.01	0.36	469	2	0.16	43	0.08	<2	<2	<2	33	<5	<3	351
L7+00N 2+00W	0.2	5.18	<3	10	41	<3	0.28	<0.1	65	32	484	>10	<0.01	0.17	953	2	0.19	44	0.08	26	<2	<2	12	<5	<3	632
L7+00N 2+50W	0.1	7.54	<3	20	84	<3	0.55	<0.1	36	23	484	>10	<0.01	0.17	723	3	0.15	31	0.16	<2	<2	<2	31	<5	<3	296
L7+00S 6+00E	0.3	6.36	<3	30	190	<3	0.39	<0.1	42	80	1408	8.33	<0.01	1.57	1354	4	0.04	85	0.11	155	<2	<2	55	<5	<3	560
L7+00S 6+50E	0.6	4.14	<3	20	165	<3	0.40	<0.1	28	49	237	5.37	<0.01	1.24	849	1	0.02	39	0.06	9	<2	<2	41	<5	<3	215
L7+00S 7+00E	1.8	4.13	<3	80	30	<3	5.82	1.1	129	96	1626	>10	<0.01	0.76	3401	2	0.10	110	0.08	214	<2	<2	21	<5	<3	821
Minimum Detection	0.1	0.01	3	5	1	3	0.01	0.1	1	1	1	0.01	0.01	0.01	1	1	0.01	1	0.01	2	2	2	1	5	3	1
Maximum Detection	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	10.00	1000.0	20000	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

VANGEOCHEM LAB LIMITED
1630 Pandora Street, Vancouver, B.C. V5L 1L6
Ph:(604)251-5656 Fax:(604)254-5717

ICAP GEOCHEMICAL ANALYSIS

A .5 gram sample is digested with 5 ml of 3:1:2 HCL to HNO_3 to H_2O at 95 °C for 90 minutes and is diluted to 10 ml with water.
This leach is partial for Al, Ba, Ca, Cr, Fe, K, Mg, Mn, Na, P, Sn, Sr and W.

ANALYST: [signature]

REPORT #: 930019 PA   ARROWHEAD EXPLORATION SERVICES   PROJECT: 402   DATE IN: MAR 29 1993   DATE OUT: APR 14 1993   ATTENTION: MR. FAYZ YACOUB

Sample Name	Ag	Al	As	*Au	Ba	Bi	Ca	Cd	Co	Cr	Cu	Fe	K	Mg	Mn	Mo	Na	Ni	P	Pb	Sb	Sn	Sr	U	W	Zn
	ppm	%	ppm	ppb	ppm	ppm	%	ppm	ppm	ppm	ppm	%	%	%	ppm	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
L7+00S 7+50E	0.5	7.99	<3	60	137	<3	0.67	3.3	102	272	680	9.96	<0.01	1.39	1478	1	0.07	271	0.14	7	<2	<2	66	<5	<3	201
Minimum Detection	0.1	0.01	3	5	1	3	0.01	0.1	1	1	1	0.01	0.01	0.01	1	1	0.01	1	0.01	2	2	2	1	5	3	1
Maximum Detection	50.0	10.00	2000	10000	1000	1000	10.00	1000.0	20000	1000	20000	10.00	10.00	10.00	20000	1000	10.00	20000	10.00	20000	2000	1000	10000	100	1000	20000

< - Less Than Minimum   > - Greater Than Maximum   is - Insufficient Sample   ns - No Sample   *Au Analysis Done By Fire Assay Concentration / AAS Finish.

APPENDIX C

ANALYTICAL PROCEDURE

VGC VANGEOCHEM LAB LIMITED

MAIN OFFICE
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V5L 1L6
TEL (604) 251-5656
FAX (604) 254-5717

BRANCH OFFICES
BATHURST, N.B.
RENO, NEVADA, U.S.A.

April 08, 1993

TO: Mr. Fayz Yacoub
ARROWHEAD EXPLORATION SERVICES
900 - 999 W. Hastings Street
Vancouver, BC V6C 2W2

FROM: VANGEOCHEM LAB LIMITED
1630 Pandora Street
Vancouver, BC V5L 1L6

SUBJECT: Analytical procedure used to determine hot acid soluble for 25 element scan by Inductively Coupled Plasma Spectrophotometry in geochemical silt and soil samples.

1. Method of Sample Preparation

(a) Geochemical soil, silt or rock samples were received at the laboratory in high wet-strength, 4" X 6", Kraft paper bags. Rock samples would be received in poly ore bags.

(b) Dried soil and silt samples were sifted by hand using an 8" diameter, 80-mesh, stainless steel sieve. The plus 80-mesh fraction was rejected. The minus 80-mesh fraction was transferred into a new bag for subsequent analyses.

(c) Dried rock samples were crushed using a jaw crusher and pulverized to 100-mesh or finer by using a disc mill. The pulverized samples were then put in a new bag for subsequent analyses.

2 Method of Digestion

(a) 0.50 gram portions of the minus 80-mesh samples were used. Samples were weighed out using an electronic balance.

(b) Samples were digested with a 5 ml solution of HCl:HNO3:H2O in the ratio of 3:1:2 in a 95 degree Celsius water bath for 90 minutes.

(c) The digested samples are then removed from the bath and bulked up to 10 ml total volume with demineralized water and thoroughly mixed.

VANGEOCHEM LAB LIMITED

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RENO, NEVADA, U.S.A.

3. Method of Analyses

The ICP analyses elements were determined by using a Jarrell-Ash ICAP model 9000 directly reading the spectrophotometric emissions. All major matrix and trace elements are interelement corrected. All data are subsequently stored onto disketts.

4. Analysts

The analyses were supervised or determined by Mr. Conway Chun or Mr. Raymond Chan and his laboratory staff.

Conway Chun
VANGEOCHEM LAB LIMITED

VGC VANGEOCHEM LAB LIMITED

MAIN OFFICE
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BRANCH OFFICES
BATHURST, N.B.
RENO, NEVADA, U.S.A.

April 08, 1993

TO: Mr. Fayz Yacoub
ARROWHEAD EXPLORATION SERVICES
900 - 999 W. Hastings Street
Vancouver, BC V6C 2W2

FROM: VANGEOCHEM LAB LIMITED
1630 Pandora Street
Vancouver, BC V5L 1L6

SUBJECT: Analytical procedure used to determine gold by fire assay method and detect by atomic absorption spectrophotometry in geological samples.

1. Method of Sample Preparation

(a) Geochemical soil, silt or rock samples were received at the laboratory in high wet-strength, 4" x 6", Kraft paper bags. Rock samples would be received in poly ore bags.

(b) Dried soil and silt samples were sifted by hand using an 8" diameter, 80-mesh, stainless steel sieve. The plus 80-mesh fraction was rejected. The minus 80-mesh fraction was transferred into a new bag for subsequent analyses.

(c) Dried rock samples were crushed using a jaw crusher and pulverized to 100-mesh or finer by using a disc mill. The pulverized samples were then put in a new bag for subsequent analyses.

2. Method of Extraction

(a) 20.0 to 30.0 grams of the pulp samples were used. Samples were weighed out using a top-loading balance and deposited into individual fusion pots.

(b) A flux of litharge, soda ash, silica, borax, and, either flour or potassium nitrite is added. The samples are then fused at 1900 degrees Farenhiet to form a lead "button".

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BRANCH OFFICES
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(c) The gold is extracted by cupellation and parted with diluted nitric acid.

(d) The gold beads are retained for subsequent measurement.

3. Method of Detection

(a) The gold beads are dissolved by boiling with concentrated aqua regia solution in hot water bath.

(b) The detection of gold was performed with a Techtron model AA5 Atomic Absorption Spectrophotometer with a gold hollow cathode lamp. The results were read out on a strip chart recorder. The gold values, in parts per billion, were calculated by comparing them with a set of known gold standards.

4. Analysts

The analyses were supervised or determined by Mr. Raymond Chan or Mr. Conway Chun and his laboratory staff.

Raymond Chan
VANGEOCHEM LAB LIMITED

APPENDIX D

AERIAL PHOTO INTERPRETATION

Report on the 1993 Aerial Photo interpretation

Jervis Inlet Property, Vancouver Mining Division British Columbia

for

ARROWHEAD EXPLORATION SERVICES
900 - 999 WEST HASTINGS ST.
VANCOUVER, B.C. V6C 2W2

by

Richard E. Kucera
KUCERA GEOCONSULTANTS
5198 Ranchos Road
Bellingham, WA. 98226
April, 1993

REPORT ON THE 1993 AERIAL PHOTO INTERPRETATION
Jervis Inlet Property, Vancouver Mining Division British Columbia

INTRODUCTION

This report and accompanying photogeological map were prepared at the request of Mr. Fayz F. Yacoub, of Arrowhead Exploration Services, Vancouver, B.C.. It was hoped that the few limited outcrops and geologic contacts observed during field exploration might be extended on the map area using detailed photo interpretation.

The purpose of this report is to describe the results of photo interpretation of a portion of the Jervis Inlet Property. The photogeological map covers an area of approximately 4.5 square kilometres. Geologic features that were mapped include major types of bedrock, geologic structure, and unconsolidated alluvial deposits.

PHOTOGRAPHS AND GEOMETRIC CHARACTERISTICS

The photogeologic map and report are based on stereoscopic investigation of photographs BC 86050, Nos. 124-126, 150-152, and 221-223. The photogeologic map was constructed on overlays placed on alternate photographs of each flight line which were oriented in an east-west direction. Owing to scale variations caused by relief of terrain (from sealevel to over 900 m elevation), it should be noted that parts of the landscape within a single photograph will be a different scale. A map produced directly from photo overlays will show significant scale diferences across the map area.

PHYSIOGRAPHY

From sea level at Jervis Inlet, the land rises to over 900 metres along the eastern photomap boundary. The west facing slope has been dissected by streams into steep - sided ravines. Continental glaciation has modified the upland features on the mountain, and certain rock outcrops have been sculpted and rounded by moving ice.

The course of Treat Creek trends N 40°W and coincides with the strike of argillite (unit 2 on photogeologic map).

BEDROCK GEOLOGY

Various rock units have been described by Kidlark (1989) in his report on the Jervis Inlet Property. The area is underlain by the Coast Range intrusives which are composed of diorite, quartz diorite, and quartz monzonite. The intrusives are overlain by sediments of the Gambier Group (possibly Cretaceous age), and are composed of argillites and volcanics. These rock units are thought to represent pendants of sediments and volcanics within the plutonic complex.

Ashworth Explorations Ltd. compiled a geologic map based on previous work done on the Jervis Inlet Property. Using ths map as a reference, I have been able to expand our knowledge of the area with detailed photo interpretation.

Mineralization was noted in the field to occur near the contact of black argillites with green to black tuffs and volcanic flows. Steep slopes and thick forest cover prevented the tracing of contacts in the field, but on aerial photographs, a fair estimation of the extent of the contact can be ascertained. The aerial photographs also disclose the presence of distinct northeast - trending faults that cut across the prevailing structural trend, nearly at right angles. Subtle, but important northwest - trending fractures have also been noted.

Unit 1

Agglomerate and tuff breccia consists of angular to subangular granitic and volcanic fragments. This unit occurs along the northern edge of the sedimentary band and forms irregular steep slopes.

Unit 2

Black, thin - bedded argillite forms bands within the volcanics. In the stereo model this unit forms slightly recessed bands within bold, more resistant tuff and flows of unit 3.

Unit 3

This unit consists of dark green to black andesitic tuffs and flows. Fine - grained disseminated pyrite and pyrrhotite occurs throughout the volcanics. This unit at many places forms distinct dip slopes in the stereo model, and facilitates measurements of structural attitude on the aerial photographs.

Unit 4

Plutonic igneous rocks have been mapped as unit 4. Recognition of these rocks under the stereoscope is aided by the distinctive photo tone, fracturing and weathering characteristics of bare igneous outcrops.

GEOLOGIC STRUCTURES

Bedding Attitudes

Gambier rocks, including volcanic tuff, flows, argillite and breccias on the Jervis Inlet Property, for the most part, dip 50° to 70° westward, whereas in the area north of Lone Jack Creek (west of the road) unit 3 dips 40° to 60° eastward. This reversal of dip may be related to a northwest trending fault mapped in this area on the aerial photographs.

Faults

Detailed mapping on the aerial photographs shows the presence of several northeast and northwest trending fractures, many of which are probably inconspicuous on the ground. The fractures are expressed in the photographs as straight or gently curved lines. Lines suggestive of fractures are expressed as straight scarps, rectilinear depressions, straight segments of streams and ravines and vegetation differences along linear features. The steep, straight segment of the lower end of Lone Jack Creek as well as a tributary of Treat Creek (centre of photo map) reflects distinct structural control. The writer has mapped six distinct faults, as much as 1.8 km long that trend N 60° E to N 70° E cutting across the regional structural trend. It is noteworthy that the location of showings 1 and 3 lie adjacent to these faults. A skarn zone and showing No. 2 (north of Lone Jack Creek) occurs near the southern end of a fold axis and a suspected northwest trending fault.

CONCLUSIONS

Detailed aerial photo interpretation of the Jervis Inlet Property has extended the geologic contacts noted in the field and determined the presence and orientation of fractures in the map area.

According to Kidlark (1989) and Yacoub (1993), mineralization consisting of pyrite, magnetite, pyrrhotite, chalcopyrite, and sphalerite are present in most of the pendant rock units as lenses of massive sulfides and as disseminations in skarn. The location of these showings indicate that mineralization is related to the argillite - volcanic tuff contact.

Inspection of the aerial photographs indicates that at least some of the mineralization may reflect structural control. ie: the close proximity of showings 1 and 3 to apparent northeast trending faults. It is also noteworthy that showing
No. 2 and the skarn zone lies adjacent to a fold axis, as well as a suspected northwest trending fault.

If the position and orientation of mineralized rocks are structurally controlled, It is suggested that future exploration be concentrated within a 600 metre wide belt that extends southeastward from the area just north of the skarn zone to the tributary of Treat Creek, south of showing No. 3.

APPENDIX E

STATISTICAL ANALYSIS

REPORT ON
STATISTICAL EVALUATION
OF SOIL SAMPLES COLLECTED FROM
the TREAT 1 and 2 Claims
JERVIS PROJECT, BRITISH COLUMBIA
Vancouver Mining Division, NTS 92G/13W
IN MARCH 1993

FOR

ARROWHEAD EXPLORATION SERVICES
900 - 999 West Hastings St.
Vancouver, B.C. V6C 2W2

By

A.M.S.Clark, Ph.D., P.Geo.(BC)

2988 Fleet Street
Coquitlam, B.C. V3L 3R8

SUMMARY

Correlation coefficients, histograms and symbol maps indicate increased values of gold, silver, copper and zinc in areas of known showings, and also two additional areas that require further investigation.

This report is based on an evaluation of the geochemical analyses only, the author has not visited the property.

TABLE OF CONTENTS

1. INTRODUCTION

The author of this report has not visited the sample area. This report is based on the assay results supplied by VanGeoChem Laboratories, Vancouver, and discussions with the personnel who undertook the sampling. A complete interpretation of these results requires a thorough knowledge of the topography, geology and soil characteristics of the property.

A total of 195 samples were collected from a grid on the property.

Correlation coefficients have been determined for the samples.

Histograms were determined of gold, silver, copper, lead, zinc and arsenic to help define useful groupings of the data values for the symbols on the maps, and are included in an appendix at the end of the report.

Correlation coefficient tables and summary statistics tables are attached at the end of the report.

2. DESCRIPTION OF STATISTICAL METHODS USED

(See Levinson, 1974, and Sinclair, 1987, for further discussion of statistical applications to soil sampling).

2.1 Correlation Coefficients

Correlation coefficients were calculated for all the elements analysed. Correlations were considered to be significant for coefficient values equal to or above 0.25, with the following being the terminology used for both the positive and the negative correlations:

0.25 to <0.30	very weak correlation
0.30 to <0.40	weak correlation
0.40 to <0.60	moderate correlation
0.60 to <0.80	strong correlation
0.80 to 1.00	very strong correlation

2.2 Histograms

Histograms were plotted of all elements considered of exploration significance. Where the samples show a few very high values, a second histogram has been plotted to show only the main body of samples, to allow interpretation of the type and shape of the histogram curve, and to determine ranges for plotting on the symbol maps. Ranges used for the symbols on the symbol maps were chosen to show any groupings that are indicated in the data by discordant changes in the shape of the curve at the higher values of the histogram. Where there is no obvious discordant change in the histogram, then grouping is chosen to give a visually useful distribution of symbols on the map. These groupings are usually into low, medium and high anomalous categories. The values of the samples are not considered in this process as the pattern of distribution of the values, not the absolute values, is considered the main aid to exploration. This is especially important if dilution of soil samples may be a factor. The amount of dilution for these samples is not known.

3. DISCUSSION OF CORRELATION COEFFICIENTS

Correlation coefficient tables are in the appendix. Only correlations considered of exploration significance are discussed below.

Silver: Silver has a moderate correlation with copper, molybdenum and lead.

Arsenic: Arsenic shows no correlation with any other element.

Gold: Gold shows no correlation with any other element.

Bismuth: Bismuth shows a strong correlation with antimony.

Copper: Copper has a strong correlation with molybdenum, even when the single very high (>500ppm Mo) sample is removed. Copper has a moderate correlation with lead and a very weak correlation with zinc.

4. INTERPRETATION OF HISTOGRAMS

Histograms are in the appendix.

Gold: The values form an irregular log-normal histogram with a long high-end 'tail'. Most values fall below about 50 ppb, but there is a slight secondary 'grouping' at about 60 to 90 ppb which is not considered indicative of a second population. A symbol and value map was plotted with the following value ranges:

30 to <50 ppb	'low' anomalous
50 to <100 ppb	'medium' anomalous
100+ ppb	'high' anomalous

Silver: Values range up to 30 ppm, but most values are distributed between 0 and about 3.5 ppm. Apart from one sample above 3.5 ppm there is no indication of any highly anomalous values. A symbol and value map was plotted with the following value ranges:

1 to <2 ppm	'low' anomalous
2 to <4 ppm	'medium' anomalous
4+ ppm	'high' anomalous

Copper: Values ranged up to 2283 ppm. The curve is approximately log-normal. A symbol and value map was plotted using the following value ranges:

500 to <1000 ppm Cu	low anomalous
1000 to <1500 ppm Cu	medium anomalous
1500+ ppm Cu	high anomalous

Lead: Values form an approximately log-normal curve up to about 140 ppm with higher values distributed up to 274 ppm forming a possible second population. A symbol and value map was plotted using the following value ranges:

60 to <120 ppm Pb	low anomalous
120 to <220 ppm Pb	medium anomalous
220+ ppm Pb	high anomalous

Zinc: Values produce a slightly irregular lognormal curve up to about 2432 ppm. These were plotted as a symbol map using the following value ranges:

700 to <1400 ppm Zn	low anomalous
1400 to <1700 ppm Zn	medium anomalous
1700+ ppm Zn	high anomalous

Arsenic: Values ranged up to the 1564 ppm. All values equal to or greater than 200 ppm As were plotted as anomalous.

5. DISCUSSION

A full interpretation of the distribution of values requires a knowledge of the geology, soil characteristics and topography. There is no distinctive association of elements apart from the correlation of copper and molybdenum. Gold, silver or arsenic do not associate with one another, and though there is a correlation between bismuth and antimony, this does not relate to the gold mineralisation.

The areal distribution of the higher values in soil samples indicates an area of interest at about ON and 200E, where the ON line bends. At this juncture and the adjacent part of the 100N line there is moderate to high gold in soils, and high zinc in soils. This area does not appear to have been investigated in detail yet. There is also an area at 300S and about 700E to 1000E where a high gold soil sample, and high silver and zinc soil samples occur. This area has also not apparently been investigated in detail.

The other high and medium soil analysis values are generally in the vicinity of known showings.

6. RECOMMENDATIONS

The area at about 200E between ON and 100N and the area between 700E and 1000E on line 300S should be reinvestigated in more detail. This should consist of extending the grid where necessary, undertaking further soil sampling as well as detailed geological mapping and rock sampling.

REFERENCES

Levinson, A.A., 1974. Introduction to Exploration Geochemistry. Applied Publishing Limited, Calgary. 612p. and 1980 Supplement.

A.J.Sinclair, 1987. Statistical Interpretation of Soil Geochemical Data. In: Reviews in Economic geology, Volume 3, Fletcher, W.K., Hoffman, S.J., Mehrtens, M.B., Sinclair, A.,J., and Thomson, I, Exploration Geochemistry: Design and Interpretation of Soil Surveys. Edited by: Robertson, J.M. Society of Economic Geologists.

CERTIFICATE

I, ANTHONY M.S. CLARK, of 2988 Fleet Street, Coquitlam, B.C., do hereby state that:

1. I am a graduate of the University of Cape Town, Cape Town, South Africa, with a Bachelor of Science Degree in Geology, 1963, and a graduate of Memorial University, St. John's, Newfoundland, with a Doctor of Philosophy Degree in Geology, 1974.

2. I actively pursued my career as an exploration geologist for twenty-three years from 1963 to 1986, since when I have undertaken consulting in the fields of mineral exploration and computer applications to exploration.

3. The information, opinions, and recommendations in this report are based on information obtained by other personnel who undertook the fieldwork on the property, and on published and unpublished literature. I have not visited the subject property.

4. I have no interest, direct or indirect, in the subject claims or the securities of Anthian Resource Corp.

5. I consent to the use of this report in Prospectus or Statement of Material Facts for the purpose of private or public financing.

Anthony M.S. Clark, PhD., P.Geo. (B.C.)

Dated at Coquitlam, B.C.,

APPENDICES

Appendix 1: Correlation Coefficient and Summary Statistics.
Appendix 2: Histograms.

APPENDIX 1

Correlation Coefficient Tables
And
Summary Statistics

Jervis Project:

Pearson Correlation Coefficients

	Ag_ppm	Al_pct	As_ppm	Au_ppb	Ba_ppm	Bi_ppm	Ca_pct	Cd_ppm	Co_ppm	Cr_ppm	Cu_ppm	Fe_pct	K_pct	Mg_pct
Ag_ppm	1.	-0.0575	0.0001	0.1707	-0.0899	0.0019	0.0423	-0.0105	0.0518	0.0726	0.5227	0.2131	-0.0008	-0.0719
Al_pct	-0.0575	1.	-0.0710	0.0211	0.1079	0.1860	0.0637	0.0559	0.1359	0.4489	0.4097	0.4853	-0.1487	0.3738
As_ppm	0.0001	-0.0710	1.	-0.0755	-0.0377	-0.0320	0.0188	-0.0529	0.0829	-0.0203	0.1496	0.0244	-0.0126	-0.0327
Au_ppb	0.1707	0.0211	-0.0755	1.	0.0070	0.0710	0.1572	0.0637	0.0322	0.1154	0.1621	0.1465	-0.0328	0.0090
Ba_ppm	-0.0899	0.1079	-0.0377	0.0070	1.	-0.0294	-0.0201	0.0433	-0.1121	0.0219	-0.1319	-0.0469	-0.0368	0.1568
Bi_ppm	0.0019	0.1860	-0.0320	0.0710	-0.0294	1.	0.0020	0.0671	0.0328	0.1686	0.0922	0.1353	-0.0131	-0.0336
Ca_pct	0.0423	0.0637	0.0188	0.1572	-0.0201	0.0020	1.	0.2336	0.4130	0.2568	0.3078	0.3073	-0.0268	0.1275
Cd_ppm	-0.0105	0.0559	-0.0529	0.0637	0.0433	0.0671	0.2336	1.	0.3252	0.1485	0.0485	0.1090	-0.0254	0.0353
Co_ppm	0.0518	0.1359	0.0829	0.0322	-0.1121	0.0328	0.4130	0.3252	1.	0.2116	0.3802	0.4373	-0.0604	-0.0866
Cr_ppm	0.0726	0.4489	-0.0203	0.1154	0.0219	0.1686	0.2568	0.1485	0.2116	1.	0.3813	0.4440	-0.0394	0.6022
Cu_ppm	0.5227	0.4097	0.1496	0.1621	-0.1319	0.0922	0.3078	0.0485	0.3802	0.3813	1.	0.6808	-0.0545	0.1786
Fe_pct	0.2131	0.4853	0.0244	0.1465	-0.0469	0.1353	0.3073	0.1090	0.4373	0.4440	0.6808	1.	-0.1291	0.0050
K_pct	-0.0008	-0.1487	-0.0126	-0.0328	-0.0368	-0.0131	-0.0268	-0.0254	-0.0604	-0.0394	-0.0545	-0.1291	1.	-0.0872
Mg_pct	-0.0719	0.3738	-0.0327	0.0090	0.1568	-0.0336	0.1275	0.0353	-0.0866	0.6022	0.1786	0.0050	-0.0872	1.
Mn_ppm	-0.0001	-0.1239	0.0192	0.0274	0.0695	0.0403	0.3781	0.3912	0.4855	0.0852	0.0688	0.2701	-0.0588	-0.1876
Mo_ppm	0.4567	0.3630	0.0408	0.1602	-0.1639	0.2844	0.0502	0.0476	0.2228	0.2792	0.7499	0.6128	0.1473	0.0373
Na_pct	0.4283	0.2809	0.0150	0.1372	-0.1717	0.1994	0.2040	0.0335	0.2823	0.2783	0.6229	0.8191	-0.0618	-0.1711
Ni_ppm	0.0291	0.2740	0.0819	0.0130	-0.0987	0.0938	0.3346	0.2372	0.6889	0.6165	0.3602	0.4826	-0.0461	0.2101
P_pct	0.1491	0.2369	0.0012	0.2399	0.1043	0.1098	0.1631	0.0688	0.2405	0.2176	0.3446	0.4076	0.0257	0.0013
Pb_ppm	0.4022	0.1196	-0.0136	0.1293	0.0417	0.0048	0.3139	0.1765	0.1194	0.2682	0.4800	0.3137	-0.0429	0.2433
Sb_ppm	0.0124	0.2618	-0.0160	0.0035	-0.0454	0.6939	0.0071	-0.0325	0.0180	0.1872	0.1826	0.1306	-0.0066	-0.0096
Sn_ppm	undef.	undef.	undef.	undef.	undef.	undef.	undef.	undef.	undef.	undef.	undef.	undef.	undef.	undef.
Sr_ppm	-0.0152	0.2473	0.0153	0.0561	0.3718	0.0048	0.3431	0.2361	0.2173	0.3319	0.0998	0.2211	-0.0288	0.3797
U_ppm	undef.	undef.	undef.	undef.	undef.	undef.	undef.	undef.	undef.	undef.	undef.	undef.	undef.	undef.
W_ppm	undef.	undef.	undef.	undef.	undef.	undef.	undef.	undef.	undef.	undef.	undef.	undef.	undef.	undef.
Zn_ppm	0.1053	0.0909	0.1254	0.0725	-0.0150	0.0145	0.2241	0.3511	0.4990	0.1254	0.2753	0.3907	-0.0691	-0.0903

Pearson Correlation Coefficients

	Mn_ppm	Mo_ppm	Na_pct	Ni_ppm	P_pct	Pb_ppm	Sb_ppm	Sn_ppm	Sr_ppm	U_ppm	W_ppm	Zn_ppm
Ag_ppm	-0.0001	0.4567	0.4283	0.0291	0.1491	0.4022	0.0124	undef.	-0.0152	undef.	undef.	0.1053
Al_pct	-0.1239	0.3630	0.2809	0.2740	0.2369	0.1196	0.2618	undef.	0.2473	undef.	undef.	0.0909
As_ppm	0.0192	0.0408	0.0150	0.0819	0.0012	-0.0136	-0.0160	undef.	0.0153	undef.	undef.	0.1254
Au_ppb	0.0274	0.1602	0.1372	0.0130	0.2399	0.1293	0.0035	undef.	0.0561	undef.	undef.	0.0725
Ba_ppm	0.0695	-0.1639	-0.1717	-0.0987	0.1043	0.0417	-0.0454	undef.	0.3718	undef.	undef.	-0.0150
Bi_ppm	0.0403	0.2844	0.1994	0.0938	0.1098	0.0048	0.6939	undef.	0.0048	undef.	undef.	0.0145
Ca_pct	0.3781	0.0502	0.2040	0.3346	0.1631	0.3139	0.0071	undef.	0.3431	undef.	undef.	0.2241
Cd_ppm	0.3912	0.0476	0.0335	0.2372	0.0688	0.1765	-0.0325	undef.	0.2361	undef.	undef.	0.3511
Co_ppm	0.4855	0.2228	0.2823	0.6889	0.2405	0.1194	0.0180	undef.	0.2173	undef.	undef.	0.4990
Cr_ppm	0.0852	0.2792	0.2783	0.6165	0.2176	0.2682	0.1872	undef.	0.3319	undef.	undef.	0.1254
Cu_ppm	0.0688	0.7499	0.6229	0.3602	0.3446	0.4800	0.1826	undef.	0.0998	undef.	undef.	0.2753
Fe_pct	0.2701	0.6128	0.8191	0.4826	0.4076	0.3137	0.1306	undef.	0.2211	undef.	undef.	0.3907
K_pct	-0.0588	0.1473	-0.0618	-0.0461	0.0257	-0.0429	-0.0066	undef.	-0.0288	undef.	undef.	-0.0691
Mg_pct	-0.1876	0.0373	-0.1711	0.2101	0.0013	0.2433	-0.0096	undef.	0.3797	undef.	undef.	-0.0903
Mn_ppm	1.	0.0705	0.0787	0.4641	0.2077	0.1500	-0.0396	undef.	0.2338	undef.	undef.	0.4446
Mo_ppm	0.0705	1.	0.6229	0.2743	0.2995	0.3982	0.3077	undef.	-0.0277	undef.	undef.	0.3295
Na_pct	0.0787	0.6229	1.	0.2917	0.3484	0.3082	0.3051	undef.	0.0663	undef.	undef.	0.3365
Ni_ppm	0.4641	0.2743	0.2917	1.	0.2090	0.1428	0.0212	undef.	0.2496	undef.	undef.	0.5319
P_pct	0.2077	0.2995	0.3484	0.2090	1.	0.1175	0.1525	undef.	0.2017	undef.	undef.	0.0689
Pb_ppm	0.1500	0.3982	0.3082	0.1428	0.1175	1.	0.0577	undef.	0.2102	undef.	undef.	0.3906
Sb_ppm	-0.0396	0.3077	0.3051	0.0212	0.1525	0.0577	1.	undef.	-0.0414	undef.	undef.	-0.0076
Sn_ppm	undef.	undef.	undef.	undef.	undef.	undef.	undef.	1.	undef.	undef.	undef.	undef.
Sr_ppm	0.2338	-0.0277	0.0663	0.2496	0.2017	0.2102	-0.0414	undef.	1.	undef.	undef.	0.1215
U_ppm	undef.	undef.	undef.	undef.	undef.	undef.	undef.	undef.	undef.	1.	undef.	undef.
W_ppm	undef.	undef.	undef.	undef.	undef.	undef.	undef.	undef.	undef.	undef.	1.	undef.
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Jervis Project:

Summary Statistics

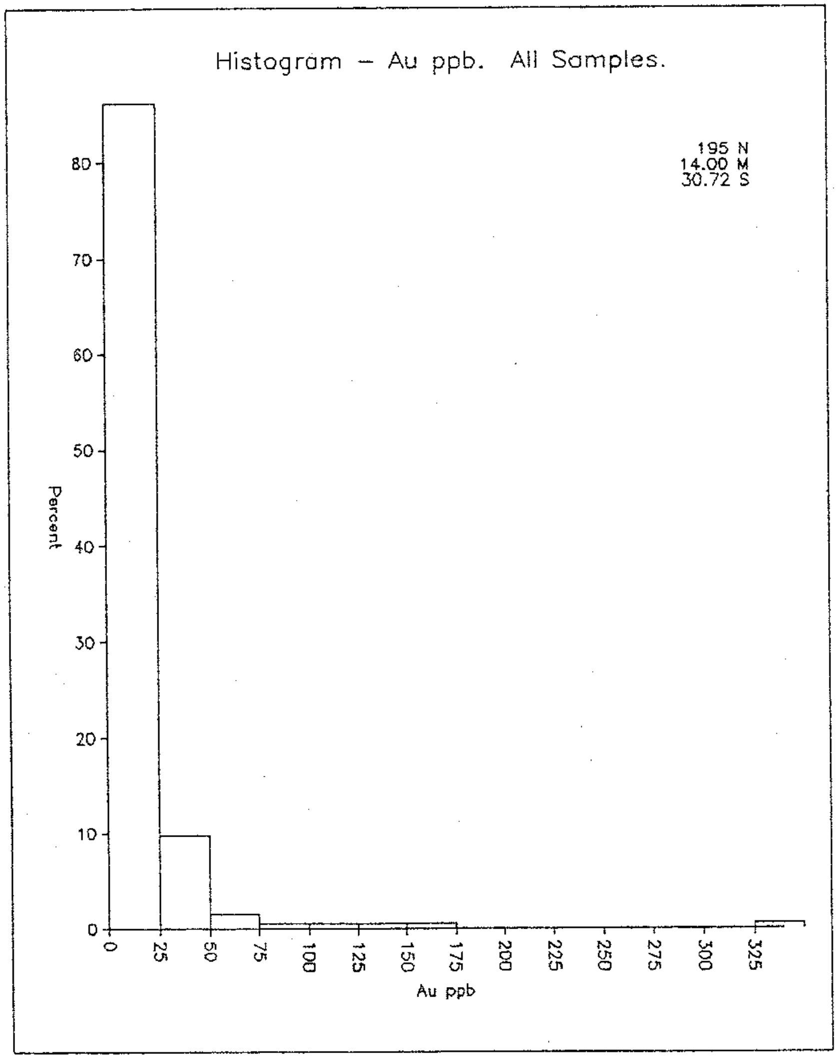
	Ag_ppm	Al_pct	As_ppm	Au_ppb	Ba_ppm	Bi_ppm	Ca_pct	Cd_ppm	Co_ppm	Cr_ppm	Cu_ppm	Fe_pct
Number	195	195	195	195	195	195	195	195	195	195	195	195
Mean	0.724	3.7652	26.43	14.00	119.80	0.20	0.3481	0.478	38.98	37.43	292.22	5.8213
Std Dev	2.178	1.4205	151.51	30.72	73.99	1.10	0.4775	1.354	41.71	33.64	359.70	2.6204
Maximum	30.0	8.27	1564	330	774	9	5.82	7.8	343	272	2283	10.00
Minimum	0.0	0.00	0	0	0	0	0.00	0.0	0	0	0	0.00
Range	30.0	8.27	1564	330	774	9	5.82	7.8	343	272	2283	10.00
Coef Var	301.0446	37.7259	573.3275	219.4278	61.7649	548.1929	137.1843	283.0565	106.9992	89.8672	123.0937	45.0149
Std Err	0.1560	0.1017	10.8495	2.1999	5.2988	0.0785	0.0342	0.0970	2.9868	2.4089	25.7590	0.1877
Median	0.40	3.515	0.0	10.0	105.5	0.0	0.230	0.00	27.0	29.0	144.0	4.905
Mode	0.2	3.29	0	0	71	0	0.17	0.0	13	23	63	10.00
Variance	4.745	2.0177	22953.91	943.71	5475.16	1.20	0.2280	1.834	1739.54	1131.51	129387.63	6.8667
Skewness	12.4732	0.7915	7.4801	6.6618	3.9445	5.7881	8.0291	3.7336	3.8861	4.6501	2.1040	0.4763
Kurtosis	164.3514	0.6701	62.7756	58.8216	29.6834	34.6153	86.1673	14.2009	21.2803	26.8514	5.6413	-1.1326

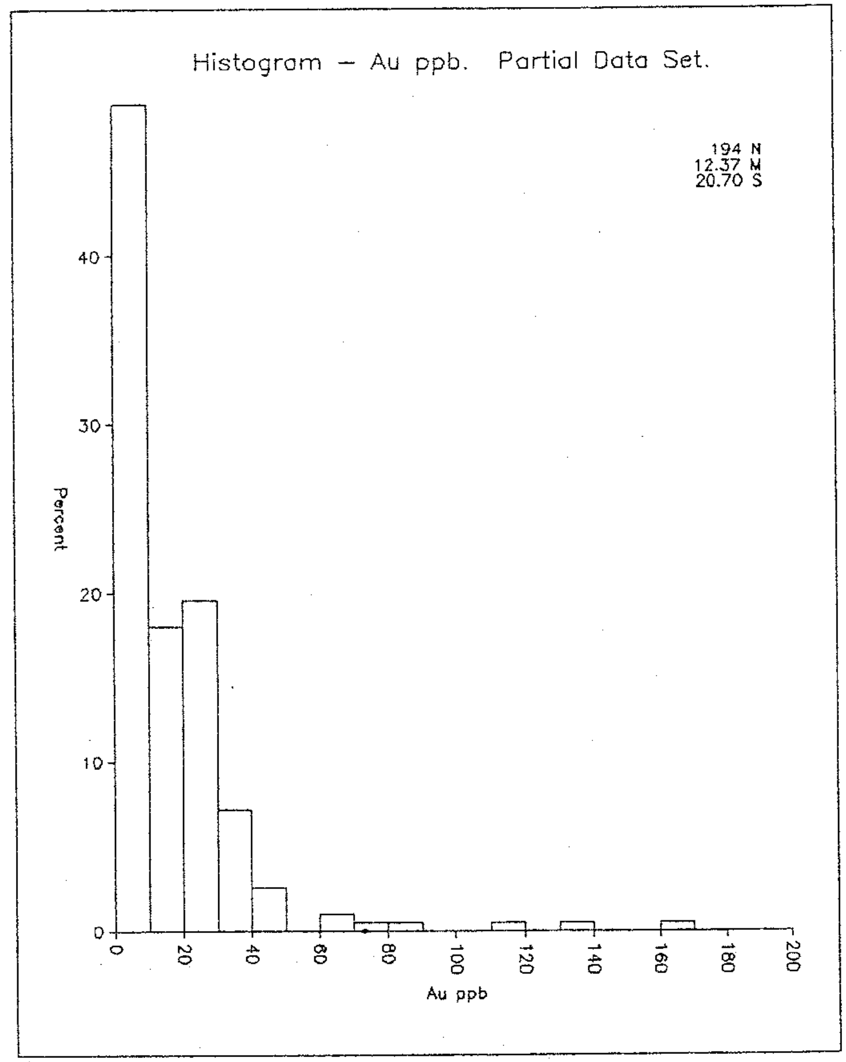
Summary Statistics

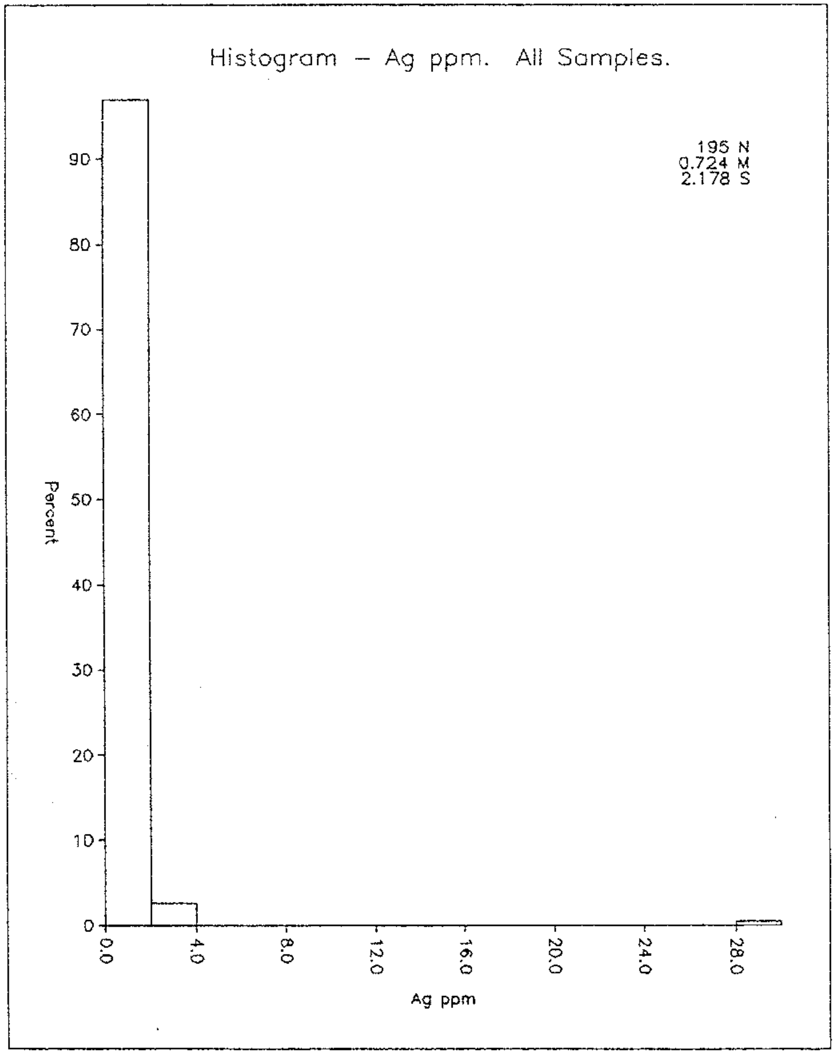
	K_pct	Mg_pct	Mn_ppm	Mo_ppm	Na_pct	Ni_ppm	P_pct	Pb_ppm	Sb_ppm	Sn_ppm	Sr_ppm	U_ppm	W_ppm	Zn_ppm
Number	195	195	195	195	195	195	195	195	195	195	195	195	195	195
Mean	0.0018	0.4472	1405.97	1.67	0.0578	50.77	0.08	30.64	0.14	0.00	24.69	0.00	0.00	518.98
Std Dev	0.0251	0.2784	1431.96	1.14	0.0557	54.35	0.05	51.42	1.51	0.00	11.72	0.00	0.00	478.21
Maximum	0.35	1.77	10911	7	0.33	333	0	274	20	0	89	0	0	2432
Minimum	0.00	0.00	0	0	0.00	0	0	0	0	0	0	0	0	0
Range	0.35	1.77	10911	7	0.33	333	0	274	20	0	89	0	0	2432
Coef Var	1396.4240	62.2649	101.8485	68.0375	96.3708	107.0408	57.6161	167.8050	1094.1518		47.4766			92.1441
Std Err	0.0018	0.0199	102.5450	0.0815	0.0040	3.8920	0.0034	3.6821	0.1085		0.8395			34.2456
Median	0.000	0.380	953.0	1.0	0.040	36.5	0.1	10.0	0.0	0.0	23.0	0.0	0.0	347.0
Mode	0.00	0.17	600	1	0.00	23	0	0	0	0	18	0	0	80
Variance	0.0006	0.0775	2050519.76	1.29	0.0031	2953.85	0.00	2643.73	2.30	0.00	137.43	0.00	0.00	228688.30
Skewness	13.7501	1.8161	3.1848	1.7076	1.6552	2.9380	1.4808	2.5405	12.0311		1.9521			1.6711
Kurtosis	188.0307	4.4094	13.2832	3.5649	3.9148	9.6802	2.8979	6.4135	150.6500		6.7776			2.5940

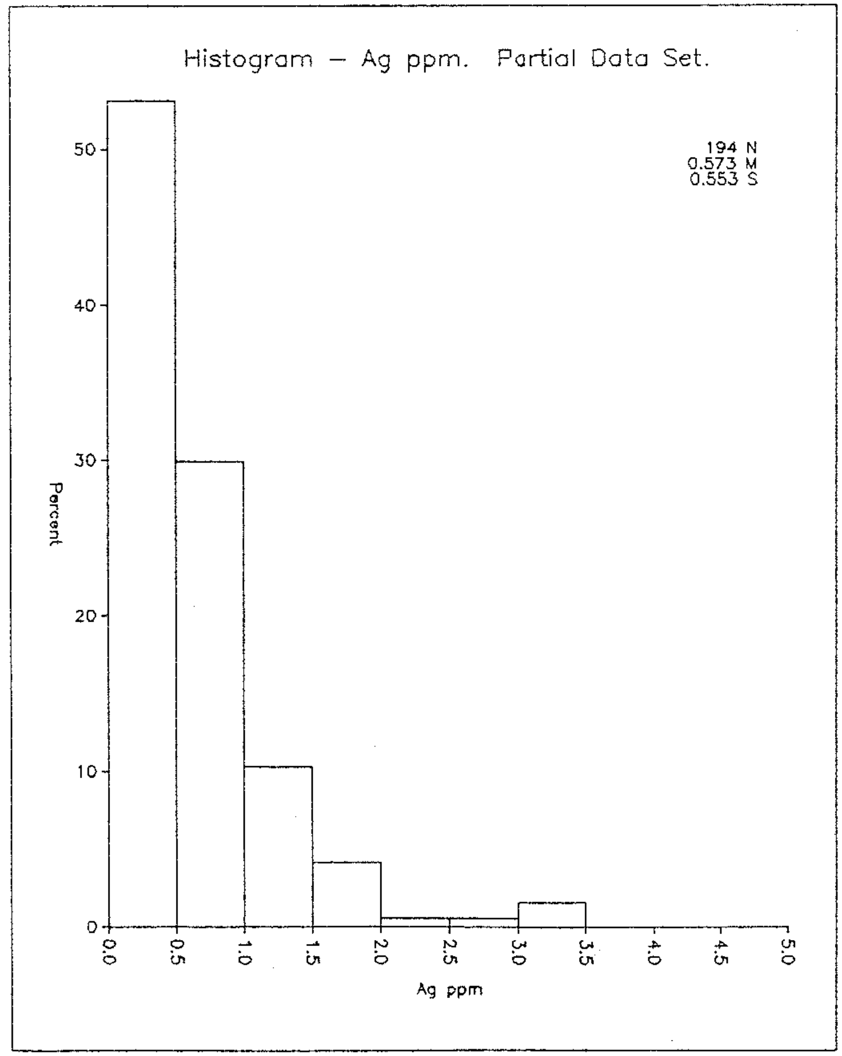
APPENDIX 2

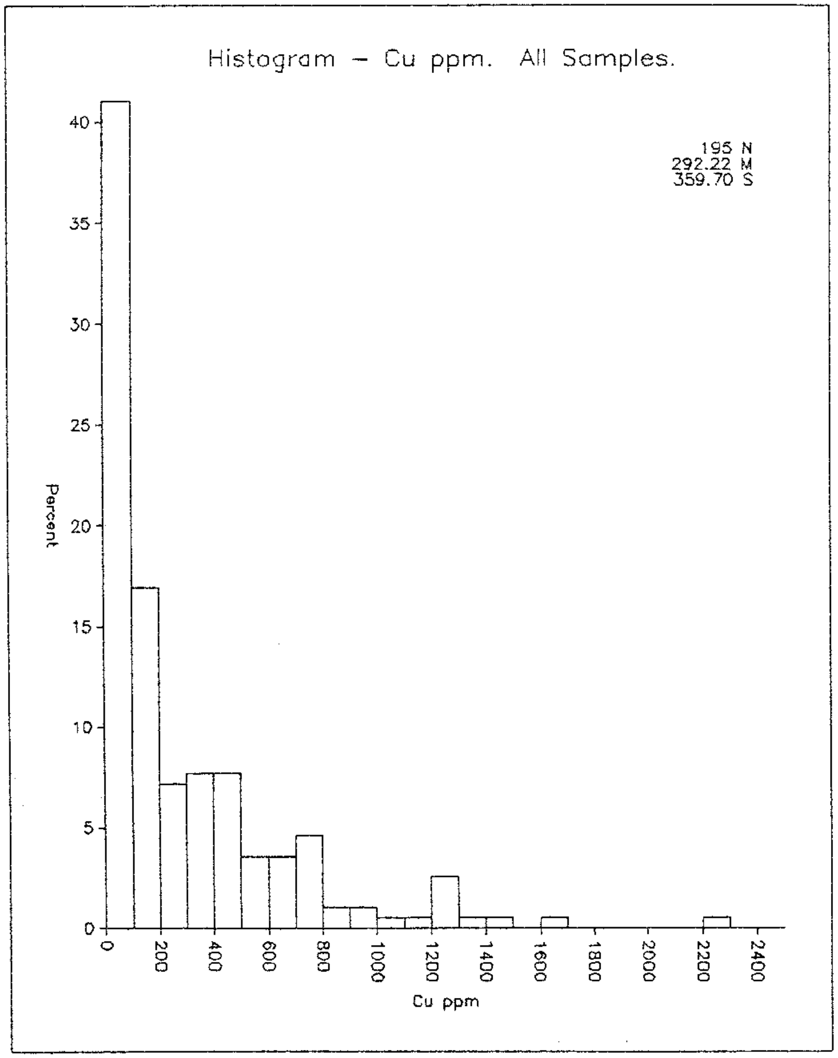
Histograms

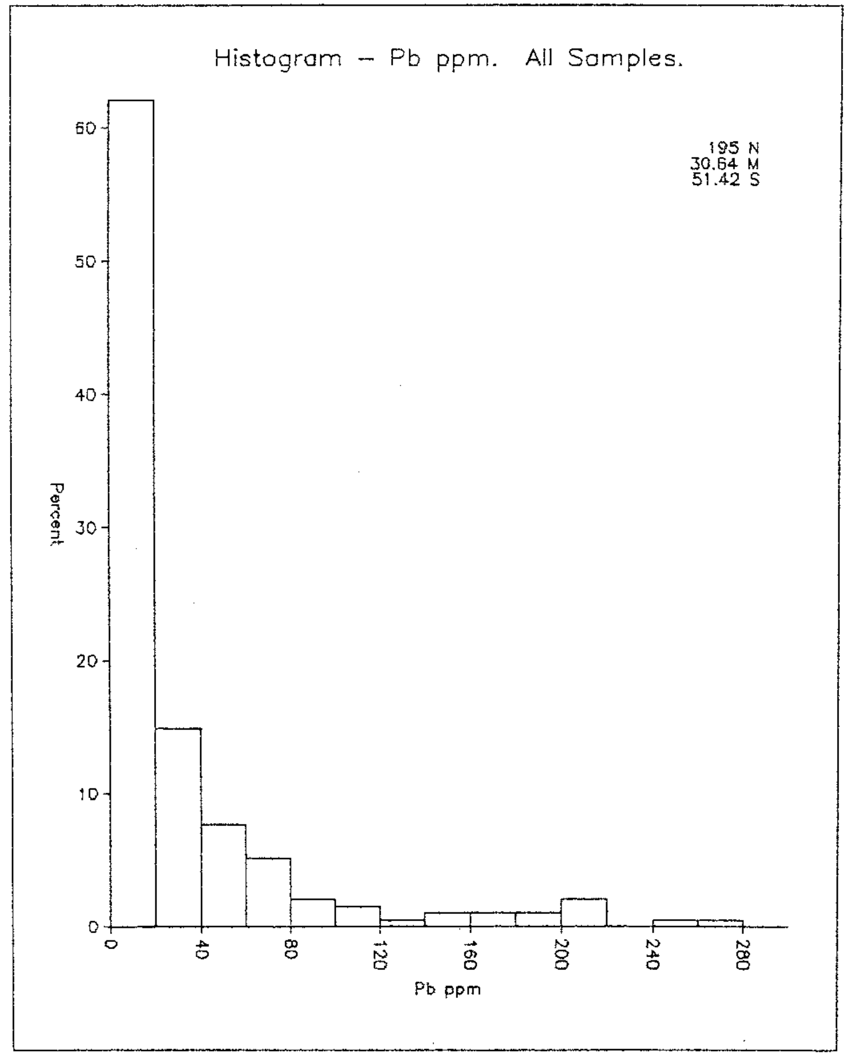

Histogram – Au ppb. All Samples.
195 N
14.00 M
30.72 S
Percent
Au ppb
0
10
20
30
40
50
60
70
80
0
25
50
75
100
125
150
175
200
225
250
275
300
325

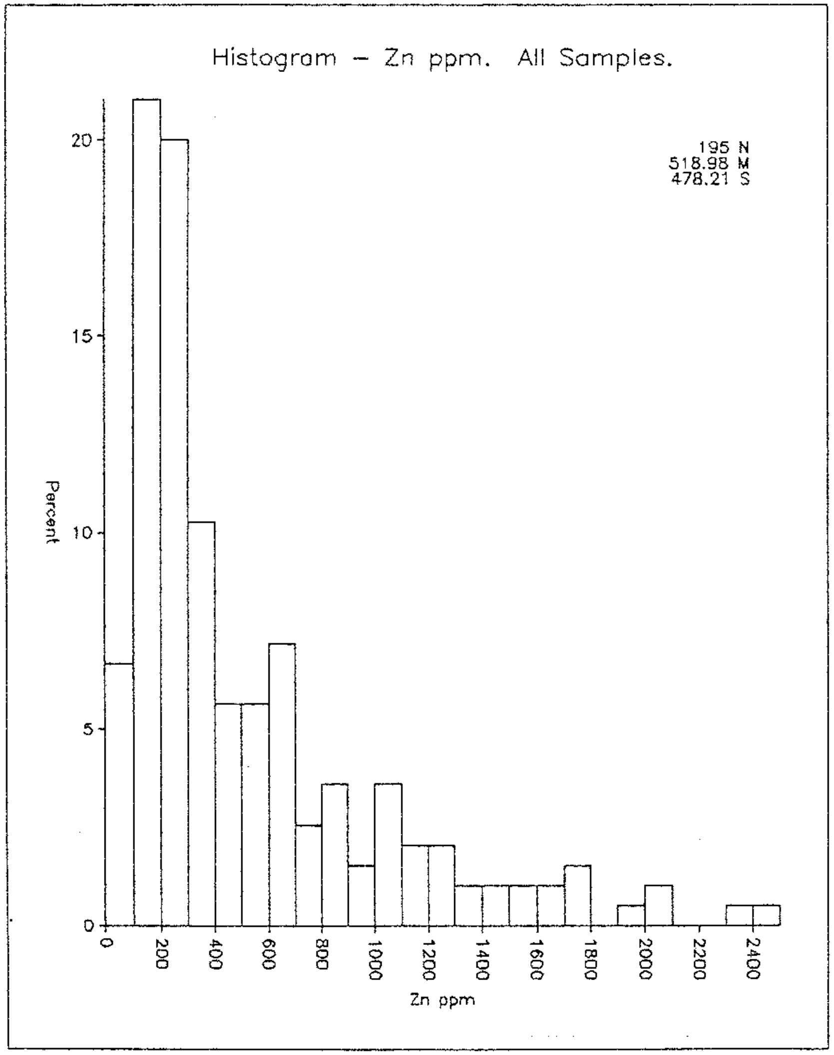

Histogram – Au ppb. Partial Data Set.
194 N
12.37 M
20.70 S
Percent
Au ppb
0
10
20
30
40
0
20
40
60
80
100
120
140
160
180
200

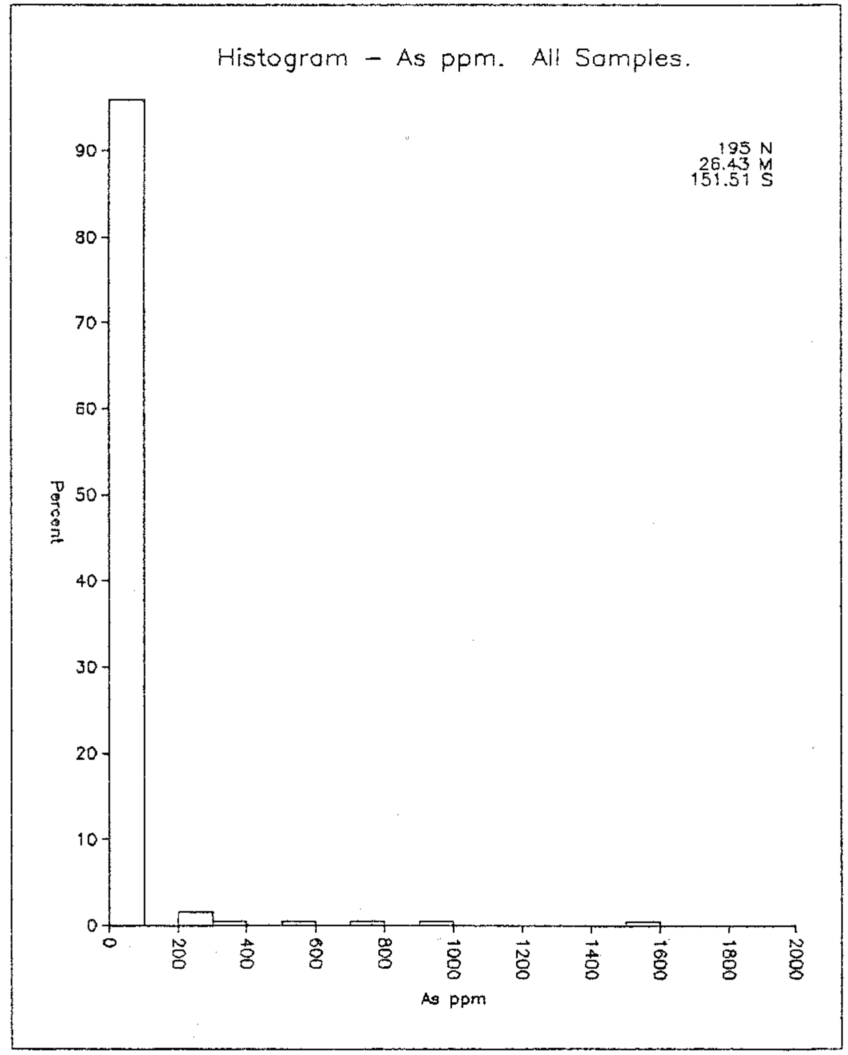

Histogram – Ag ppm. All Samples.
195 N
0.724 M
2.178 S
Percent
0
10
20
30
40
50
60
70
80
90
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
Ag ppm


Histogram – Ag ppm. Partial Data Set.
194 N
0.573 M
0.553 S
Percent
0
10
20
30
40
50
0.0
0.5
1.0
1.5
2.0
2.5
3.0
3.5
4.0
4.5
5.0
Ag ppm


Histogram - Cu ppm. All Samples.
195 N
292.22 M
359.70 S
Percent
0
5
10
15
20
25
30
35
40
0
200
400
600
800
1000
1200
1400
1600
1800
2000
2200
2400
Cu ppm


Histogram - Pb ppm. All Samples.
195 N
30.64 M
51.42 S
Percent
0
10
20
30
40
50
60
0
40
80
120
160
200
240
280
Pb ppm


Histogram – Zn ppm. All Samples.
195 N
518.98 M
478.21 S
Percent
Zn ppm
0 200 400 600 800 1000 1200 1400 1600 1800 2000 2200 2400
0 5 10 15 20


Histogram – As ppm. All Samples.
195 N
26.43 M
151.51 S
Percent
As ppm
0 200 400 600 800 1000 1200 1400 1600 1800 2000
0 10 20 30 40 50 60 70 80 90

APPENDIX F

PETROGRAPHICAL ANALYSIS

Vancouver Petrographics Ltd.

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Report for: **Fayz Yacoub,**
Arrowhead Exploration Services,
900 - 999 West Hastings Street
VANCOUVER, B.C., V6C 2W2

Job 920292
April 1993

Samples: P-1 to P-7

Summary:

A. Petrographic Notes

Samples P-3, P-4, and P-5 contain an alteration calc-silicate mineral which could not be identified completely optically, but which was identified tentatively as prehnite. It has moderate relief (R.I. about 1.60-1.65), moderate birefringence (0.015-0.020), lacks cleavage and crystal outlines, and its hardness is greater than 5.5. Its reflectivity is slightly less than than of epidote. In some samples, it forms irregular replacement patches in plagioclase and in others it forms similar patches in both plagioclase and mafic minerals.

B. Sample Descriptions

Sample P-1 is a **slightly porphyritic microdiorite** containing scattered phenocrysts of plagioclase and less abundant, smaller ones of tremolite/actinolite in a groundmass of very fine grained tremolite/actinolite and plagioclase, with minor disseminated ilmenite and quartz, and much less pyrrhotite and sphene. Textures suggest a metamorphic history. Minor veinlets are of each of fluorite, quartz, tremolite/actinolite, sphene and epidote.

Sample P-2 is a relatively uniform **argillite** with minor variation between layers in grain size, texture, and content of carbonaceous opaque. It was brecciated in irregular lenses and patches, and fragments rotated strongly; textures suggest soft-sediment deformation. Chlorite forms a few replacement lenses. Minor veinlets are of quartz and of sericite-(opaque).

Sample P-3 is an **altered porphyritic hypabyssal andesite dyke or flow** containing phenocrysts of plagioclase and much less abundant clinopyroxene in a groundmass dominated by plagioclase with less abundant epidote and clinopyroxene(?) and much less Ti-oxide/leucoxene. Amygdules and replacement patches are of tremolite-prehnite?. Veinlets are of prehnite? and minor limonite.

(continued)

Sample P-4 is a **porphyritic dacite** containing moderately abundant phenocrysts of plagioclase and quartz, less abundant ones of hornblende, and minor ones of biotite in a very fine grained groundmass dominated by plagioclase with much less K-feldspar, quartz and epidote, and with moderately abundant disseminated pyrite.

Sample P-5 is a **hypabyssal andesite/diabase** containing minor phenocrysts of plagioclase in a groundmass of fine grained, interlocking, lathy plagioclase with much less mafic patches (altered completely to secondary tremolite/prehnite(?) and epidote), accessory Ti-oxide and pyrite, and minor apatite and dolomite/ ankerite. Minor veinlets are of tremolite/prehnite(?).

Sample P-6 is a **metamorphosed**, extremely fine grained, foliated **felsic tuff** containing lenses of quartz parallel to foliation in a groundmass dominated by plagioclase with minor Ti-oxide. A replacement patch up to 10 mm across of epidote-tremolite occurs mainly in a coarser grained plagioclase-quartz layer. Abundant veinlets are of epidote-quartz-(tremolite).

Sample P-7 is a zoned skarn dominated by an epidote-rich zone containing abundant patches and veinlike zones of sulfides, and a quartz-rich zone containing much less abundant sulfides. Sulfides are dominated by pyrrhotite with less sphalerite, much less chalcopyrite and minor pyrite. Chlorite forms scattered patches in the epidote-rich zone and forms intergrowths with quartz in the quartz-rich zone. Textures suggest that some of the sulfides were formed by replacement along irregular fractures of an original epidote-rich skarn. However, commonly in detail, subhedral to euhedral epidote grains are surrounded by interstitial patches of sulfides, suggesting that the minerals were formed together. A late veinlet is of pyrite-hematite and another is of chalcopyrite.

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Sample P-1 **Slightly Porphyritic Microdiorite (Metamorphic); Veinlets of Fluorite, Quartz, Tremolite/Actinolite, Sphene, Epidote**

Scattered phenocrysts of plagioclase and less abundant, smaller ones of tremolite/actinolite are set in a groundmass of very fine grained tremolite/actinolite and plagioclase, with minor disseminated ilmenite and quartz, and much less pyrrhotite and sphene. Textures suggest a metamorphic history. Minor veinlets are of each of fluorite, quartz, tremolite/actinolite, sphene and epidote.

phenocrysts		veinlets	
plagioclase	4- 5%	fluorite-(tremolite?-(chlorite)	Ø.3
tremolite/actinolite	3- 4	quartz	minor
groundmass		tremolite/actinolite	minor
tremolite/actinolite	5Ø-55	sphene	minor
plagioclase	25-3Ø	epidote	trace
ilmenite	2- 3		
quartz	1		
pyrrhotite	minor		
limonite	minor		
sphene	minor		

Plagioclase forms anhedral, in part corroded phenocrysts and clusters of intergrown phenocrysts averaging 1-1.5 mm in size, and locally up to 2 mm across. Some grains are recrystallized slightly to locally moderately to aggregates of extremely fine grained, equant plagioclase. Alteration is slight to moderate to disseminated flakes of sericite and ragged, acicular grains of tremolite/actinolite. In the groundmass plagioclase forms anhedral grains averaging Ø.1-Ø.3 mm in size. In a few diffuse patches up to Ø.3 mm in size, plagioclase forms aggregates of equant grains averaging Ø.Ø1-Ø.Ø2 mm in size.

Tremolite/actinolite forms anhedral, equant phenocrysts averaging Ø.4-Ø.7 mm in size. Pleochroism is weak and the color is pale to light yellowish green. Phenocrysts grade downwards in size to groundmass tremolite/actinolite of similar composition, which forms ragged prismatic grains averaging Ø.1-Ø.2 mm in size. Some of these were recrystallized moderately to somewhat finer grained, ragged, fibrous aggregates.

Ilmenite forms disseminated grains and clusters of grains averaging Ø.Ø3-Ø.Ø5 mm in grain size, and a few grains up to Ø.2 mm across.

Quartz forms disseminated, interstitial grains averaging Ø.Ø7-Ø.2 mm in size.

Pyrrhotite forms disseminated patches averaging Ø.Ø1-Ø.Ø15 mm in grain size. Commonly it is altered moderately to strongly to secondary pyrite/carbonate. Limonite is concentrated in diffuse halos bordering some patches of pyrrhotite.

Sphene forms disseminated grains and clusters of grains averaging Ø.Ø5-Ø.1 mm in size. It also is concentrated in a vein-like zone as several lenses of grains averaging Ø.Ø5-Ø.1 mm in size.

Epidote forms scattered grains and clusters of grains, mainly cryptocrystalline in size, and mainly associated with tremolite/actinolite.

A veinlet Ø.2 mm wide is dominated by extremely fine grained fluorite containing minor seams of chlorite and scattered grains up to Ø.2 mm in size of tremolite?. A veinlet Ø.Ø2-Ø.Ø5 mm wide is of very fine grained tremolite/actinolite.

A veinlet Ø.Ø2 mm wide is of very fine grained quartz. One diffuse veinlet Ø.Ø1-Ø.Ø2 mm wide is of cryptocrystalline epidote.

Sample P-2 Argillite; Soft-Sediment Deformation; Veinlets of Quartz, Sericite-(Opaque)

The sample is a relatively uniform argillite with minor variation between layers in grain size, texture, and content of carbonaceous opaque. It was brecciated in irregular lenses and patches, and fragments rotated strongly; textures suggest soft-sediment deformation. Chlorite forms a few replacement lenses. Minor veinlets are of quartz and of sericite-(opaque).

fragments		veinlets, lenses	
plagioclase	1- 2%	quartz	0.5%
quartz	0.1	sericite-(opaque-limonite)	0.5
muscovite	trace	chlorite-(sericite)	0.1
groundmass			
plagioclase/quartz	80-85%		
chlorite	7- 8		
carbonaceous opaque	2- 3		
opaque	0.5		

Plagioclase forms equant fragments averaging 0.03-0.05 mm in size. Alteration is slight to sericite. Several larger fragments up to 0.2 mm long are of extremely fine grained latite. Quartz forms scattered fragments averaging 0.03-0.07 mm in size. These range from single grains to very fine grained, metamorphic aggregates. Muscovite forms ragged flakes from 0.15-0.25 mm long.

The groundmass is dominated by plagioclase and probably much less quartz averaging 0.005-0.01 mm in size. (Grain size is too fine to allow optical distinction). Chlorite forms flakes averaging 0.005 mm

Opaque (ilmenite? or hematite?) forms disseminated grains averaging 0.02-0.03 mm in size. Carbonaceous opaque forms wispy lenses, seams, and disseminations oriented parallel to foliation.

A weak to moderate foliation is defined by elongation of wispy lenses of chlorite and of carbonaceous opaque. Minor compositional banding is defined by lenses and thin layers containing much less or more carbonaceous opaque than normal, and in a few layers by more plagioclase fragments than normal.

The foliation is disrupted in a few lenses and patches, mainly in one zone up to 2 mm wide. In this zone, angular fragments of the rock averaging 0.5-1.5 mm in size are rotated moderately to strongly and closely packed. Textures suggest soft-sediment deformation. Near these zones, the rock locally shows microscopic folds, which disappear in layers further from the disrupted zone.

Quartz is concentrated in a few, proximal, parallel veinlets averaging 0.05 mm wide, which are parallel to foliation. Grain size averages 0.02-0.05 mm. A few much smaller, tension quartz veinlets cut across the foliation; they are concentrated in one of the lenses of disrupted fragments.

Sericite forms several, discontinuous tension veinlets at averaging 0.02-0.05 mm wide and oriented at a high angle to the foliation. A few of these contain scattered lenses of opaque up to 0.3 mm long. The largest and most continuous veinlet, 0.1 mm wide, has a weak, diffuse halo containing slightly minor sericite. Several of the veinlets contain lenses and patches of light orange-brown limonite.

A few lenses up to 1 mm long are of very fine grained chlorite; these may be of hydrothermal replacement origin. Some are rimmed by sericite.

Sample P-3 **Altered Porphyritic Hypabyssal Andesite Dyke or Flow; Amygdules of Tremolite-Prehnite; Veinlets of Prehnite**

Phenocrysts of plagioclase and much less abundant clinopyroxene are set in a groundmass dominated by plagioclase with less epidote and clinopyroxene(?) and much less Ti-oxide/leucoxene. Amygdules and replacement patches are of tremolite-prehnite. Veinlets are of prehnite and minor limonite.

phenocrysts		amygdules	
plagioclase	5- 7%	tremolite	3- 4%
clinopyroxene	2- 3	prehnite	1
groundmass		opaque	0.1
plagioclase	65-70	epidote	0.1
epidote	15-20		
clinopyroxene	2- 3		
Ti-oxide/leucoxene	1- 2		
pyrrhotite	minor		
veinlets and replacement patches			
prehnite	2- 3		
limonite	0.2		

Plagioclase forms subhedral phenocrysts averaging 0.5-1.5 mm in size. Some appear to have been resorbed slightly to moderately by the groundmass or recrystallized to much finer grained aggregates of plagioclase. Alteration is moderate to locally strong to of epidote and slight to disseminated flakes of sericite.

Clinopyroxene forms equant to slightly prismatic phenocrysts and clusters of phenocrysts averaging 0.5-0.8 mm in size. A few grains are fresh. Many are altered strongly to aggregates of tremolite? with irregular rims of epidote.

In the groundmass, plagioclase forms anhedral, equant to lathy, moderately interlocking grains averaging 0.03-0.07 mm in size. Clinopyroxene forms scattered fresh grains averaging 0.1-0.2 mm in size. Epidote forms patches up to 0.3 mm in size of very fine grained aggregates of anhedral grains; it is secondary after both plagioclase and clinopyroxene.

Ti-oxide/leucoxene forms disseminated patches averaging 0.02-0.05 mm in size.

Pyrrhotite? forms disseminated grains averaging 0.02-0.04 mm in size, which are rimmed by diffuse halos of light to medium brown limonite.

Several spheroidal amygdules averaging 1.5-3 mm across consist of subhedral to euhedral prismatic grains of tremolite averaging 0.1-0.4 mm long with interstitial patches of fine grained prehnite and local patches of epidote. A few contain moderately abundant opaque grains.

A vein up to 0.3 mm wide and a prominently braided vein up to 0.3 mm wide are of extremely fine to very fine grained prehnite. Similar prehnite forms irregular replacement patches up to 2 mm across in one corner of the section. Prehnite is identified by the following properties: colorless, R.I. about 1.6-1.65, birefringence about 0.020-0.025, hardness > 5.5. Several much narrower veinlets are of prehnite and of limonite-(opaque).

Sample P-4 **Porphyritic Dacite (Phenocrysts of Plagioclase, Quartz, Hornblende, and Biotite), Disseminated Pyrite**

Phenocrysts of plagioclase and quartz, less abundant ones of hornblende, and minor ones of biotite are set in a very fine grained groundmass dominated by plagioclase with much less K-feldspar, quartz and epidote, and with moderately abundant disseminated pyrite.

phenocrysts	
plagioclase	7- 8%
quartz	4- 5
hornblende	2- 3
biotite	0.3
groundmass	
plagioclase	60-65
K-feldspar	7- 8
epidote	7- 8
quartz	7- 8
pyrite	2- 3
ilmenite/Ti-oxide	0.2
spinel	trace
fragment	
dacite/latite	1- 2

Plagioclase forms subhedral phenocrysts and clusters of phenocrysts averaging 1-3 mm in size. Alteration is variable. Many grains are replaced moderately to strongly by fine, irregular patches of K-feldspar, coarser, irregular patches of epidote, and less abundant, ragged patches of prehnite(?). Unreplaced patches of plagioclase are altered slightly to disseminated flakes of sericite.

Quartz forms several equant, subrounded phenocrysts averaging 1-2 mm in size and more irregular grains averaging 0.3-1 mm in size.

Hornblende forms a few subhedral to euhedral, prismatic phenocrysts up to 3.5 mm long. The largest grain is altered completely to aggregates of extremely fine grained chlorite with minor to moderately abundant patches of very fine grained epidote and disseminated, subhedral to euhedral grains of pyrite averaging 0.15-0.25 mm in size. A few elongate to stubby prismatic grains up to 2.5 mm long are altered completely to very fine grained epidote with minor to moderately abundant chlorite and pyrite and locally minor quartz. One grain 1.5 mm across is altered to interlocking grains of epidote with minor chlorite and prehnite(?). One prismatic hornblende or plagioclase phenocryst 1.3 mm long is altered completely to very fine grained quartz and plagioclase with less abundant epidote and minor pyrite.

Biotite forms two phenocrysts 1-1.2 mm across. One is altered completely to pseudomorphic muscovite with abundant patches of extremely fine grained epidote and minor Ti-oxide and pyrite. The other shows similar alteration except that muscovite was recrystallized strongly to extremely fine grained sericite.

The groundmass is dominated by plagioclase and less abundant K-feldspar and quartz grains averaging 0.02-0.05 mm in size. Plagioclase also forms scattered anhedral to subhedral prismatic grains averaging 0.1-0.2 mm long.

Epidote forms anhedral grains and clusters of grains averaging 0.04-0.08 mm in size.

(continued)

Sample P-4 (page 2)

Pyrite forms subhedral to euhedral grains averaging Ø.1-Ø.2 mm in size. A few skeletal grains up to Ø.4 mm across contain cores of groundmass feldspars. Along one side of the sample (weathered zone), grains are altered moderately to completely to hematite.

Ilmenite forms lensy grains averaging Ø.1-Ø.15 mm long. Some are enclosed in coarser pyrite grains (up to Ø.5 mm across). Alteration is strong to complete to aggregates of extremely fine grained Ti-oxide.

Spinel forms two adjacent anhedral grains from Ø.Ø4-Ø.Ø7 mm in size. It is medium brown in color.

At one end of the section is a fragment up to 4 mm across of a hypabyssal, non-porphyritic latite/dacite. It is slightly finer grained than the main rock, and plagioclase is altered moderately to sericite. Pyrite forms disseminated grains as in the main rock.

Sample P-5   **Hypabyssal Andesite/Diabase**

Minor phenocrysts of plagioclase are set in a groundmass of fine grained, interlocking, lathy plagioclase with much less mafic patches (altered completely to secondary tremolite/prehnite(?) and epidote), accessory Ti-oxide and pyrite, and minor apatite and dolomite/ankerite. Minor veinlets are of tremolite/prehnite(?).

phenocrysts	
plagioclase	1- 2%
groundmass	
plagioclase	75-80
tremolite/prehnite(?)	8-10
epidote	5- 7
Ti-oxide/leucoxene	1- 2
pyrite/hematite	1
apatite	0.2
dolomite/ankerite	minor
quartz	minor
veinlets	
tremolite/prehnite(?)	0.1

Plagioclase forms a very few prismatic phenocrysts averaging 0.7-1.2 mm long. In the groundmass, plagioclase forms interlocking, lathy to prismatic grains averaging 0.2-0.5 mm long. Grains are altered slightly to small patches of epidote and contain moderately abundant dusty opaque (hematite?).

Mafic patches up to 1.5 mm in size are replaced completely by secondary tremolite/prehnite(?) and epidote. It is possible that the original composition was clinopyroxene. Tremolite/prehnite(?) forms very ragged, anhedral, irregular grains and clusters averaging 0.1-0.3 mm in size. The mineral has moderate relief (R.I. about 1.60) and birefringence (0.012-0.015), and is hard, with reflectivity slightly less than that of epidote. The lack of good crystal form or cleavage prevents complete optical identification.

Epidote forms ragged, equant patches averaging 0.15-0.3 mm in size, with a few up to 1.2 mm across. Commonly it is surrounded by patches of tremolite/prehnite(?).

Ti-oxide/leucoxene forms ragged patches averaging 0.03-0.08 mm in size.

Pyrite forms disseminated, anhedral to subhedral, equant grains averaging 0.05-0.15 mm in size, and a few up to 0.2 mm long. Many grains are fresh, whereas others are altered moderately to completely to deep reddish brown hematite.

Apatite forms disseminated, acicular to prismatic grains averaging 0.03-0.07 mm long, and a few subhedral prismatic grains averaging 0.07-0.2 mm long.

Dolomite/ankerite forms ragged grains averaging 0.05-0.1 mm in size. It has moderate relief, suggesting that it is dolomite or ankerite rather than calcite.

Quartz forms scattered, equant, patches averaging 0.1-0.2 mm across of equant grains averaging 0.04-0.08 mm in size.

Wispy veinlets up to 0.02 mm wide are of tremolite/prehnite(?).

Sample P-6 **Metamorphosed Felsic Tuff; Replacement Patches of Epidote-Tremolite, Veinlets of Epidote-Quartz**

The rock is an extremely fine grained, well foliated felsic tuff containing lenses of quartz parallel to foliation in a groundmass dominated by plagioclase with minor Ti-oxide. A replacement patch up to 10 mm across of epidote-tremolite occurs mainly in a coarser grained plagioclase-quartz layer. Abundant veinlets are of epidote-quartz-(tremolite).

porphyroblasts		
tremolite	2- 3	
groundmass		
plagioclase	65-70	
quartz	5- 7	(mainly in one layer)
Ti-oxide	0.5	
sericite	minor	
replacement (?) lenses		
quartz	2- 3%	
replacement patches		
epidote	7- 8	
tremolite	3- 4	
veinlets		
quartz-epidote-(tremolite)	2- 3	

The rock is dominated by layers rich in plagioclase, in which grains average 0.003-0.01 mm in size and are oriented slightly to moderately parallel to foliation. Grain size varies slightly to moderately between some layers.

Tremolite forms porphyroblastic patches averaging 0.2-0.5 mm in size and locally up to 1 mm long of ragged, subradiating, fibrous aggregates. A few of these also contain minor epidote. In some layers, tremolite forms minor to moderately abundant disseminated grains and clusters, which locally grade into coarser grained porphyroblastic patches.

Epidote forms a few ragged replacement patches up to 1.5 mm long. Grain size is cryptocrystalline.

Quartz is concentrate in lenses up to 2 mm long and 0.2 mm wide in the foliation plane. Grain size averages 0.03-0.05 mm in smaller lenses and up to 0.3 mm in size in larger lenses. Some lenses also contain minor to moderately abundant, extremely fine grained tremolite. Quartz also forms scattered equant grains averaging 0.05-0.07 mm in size.

Ti-oxide forms disseminated patches and lenses averaging 0.003-0.007 mm in size; these are concentrated in wispy seams and lenses parallel to foliation. It also forms lenses averaging 0.02-0.05 mm in size.

Pyrite forms one disseminated grain 0.01 mm across.

One lensy patch 0.6 mm long is of extremely fine grained sericite.

One layer up to 10 mm wide has a more irregular texture and is dominated by plagioclase and moderately abundant quartz grains averaging 0.01-0.02 mm in size. It also contains 3-5% quartz grains averaging 0.05-0.2 mm in size. Pyrite forms one disseminated grain 0.02 mm across.

(continued)

The main replacement patch, which is 10 mm x 5 mm in size, occurs almost entirely in this layer. An outer zone occupying over half the patch is dominated by very fine to fine and locally medium grained epidote. A zone up to 4 mm across in the core is dominated by unoriented, interlocking, ragged prismatic grains of tremolite averaging 0.1-0.3 mm in length. Epidote and tremolite are moderately abundant in a halo extending outwards from the replacement patch for a few mm in to the quartz-rich layer. A major vein up to 0.4 mm wide of epidote and tremolite and and several small veinlets of epidote also extend subparallel to foliation from the replacement patch along the quartz-rich layer.

Veinlets throughout the rock ranging from 0.01-0.2 mm in size are of various proportions of quartz and epidote and much less tremolite. In some larger veinlets, tremolite forms acicular grains oriented perpendicular to vein walls. A few wispy seams parallel to foliation also are of tremolite. One veinlet contains minor disseminated pyrite grains averaging 0.01-0.02 mm in size.

Sample P-7 **Skarn: Epidote-Quartz-Pyrrhotite-Sphalerite-Chlorite-(Chalcopyrite-Pyrite-Sphene-Ti-oxide); Veinlets of Pyrite-Hematite, Chalcopyrite**

The sample is a zoned skarn dominated by an epidote-rich zone containing abundant patches and veinlike zones of sulfides, and a quartz-rich zone containing much less abundant sulfides. Sulfides are dominated by pyrrhotite with less sphalerite, much less chalcopyrite and minor pyrite. Chlorite forms scattered patches in the epidote-rich zone and forms intergrowths with quartz in the quartz-rich zone. Textures suggest that some of the sulfides were formed by replacement along irregular fractures of an original epidote-rich skarn. However, commonly in detail, subhedral to euhedral epidote grains are surrounded by interstitial patches of sulfides, suggesting that the minerals were formed together. A late veinlet is of pyrite-hematite and another is of chalcopyrite.

epidote	55-60%	veinlets	
quartz	20-25	pyrite-hematite	0.1%
pyrrhotite	8-10	chalcopyrite	minor
sphalerite	3- 4		
chlorite	2- 3		
chalcopyrite	0.5		
pyrite	0.2		
sphene	0.1		
Ti-oxide	0.1		

Epidote forms patches of subhedral to euhedral grains averaging 0.05-0.15 mm in size. In a few patches, some grains are up to 0.5 mm long. In some patches, commonly near the border with quartz-rich zones, subhedral to euhedral epidote grains are enclosed in a groundmass of sphalerite in a texture which suggests that epidote was brecciated and fragments healed with sphalerite. These grade into zones in which sulfides, mainly sphalerite occurs in interstitial patches to subhedral to euhedral epidote aggregates.

Quartz is concentrated strongly in one corner of the section as aggregates of slightly interlocking grains averaging 0.02-0.05 mm in size, with smaller zones averaging 0.07-0.2 mm in grain size. In the epidote-rich zone, quartz is concentrated in a few patches up to 2 mm across of grains averaging 0.05-0.15 mm in size intergrown with less abundant epidote and sulfides.

In the epidote-rich zone, chlorite is concentrated in a few irregular to subrounded patches up to 2 mm in size, in which it forms extremely fine to very fine grained aggregates. In the quartz-rich zone, it occurs in patches up to a few mm across as irregular grains interstitial to quartz.

Ti-oxide forms disseminated patches of grains averaging 0.02-0.05 mm in size in the quartz-rich zone, and is concentrated strongly in a few chlorite-rich lenses.

Sphene forms disseminated, anhedral grains averaging 0.03-0.05 mm in size in epidote-rich patches.

(continued)

Sample P-7 (page 2)

Sulfides are concentrated in vague, veinlike zones and irregular patches, mainly in the epidote-rich part of the rock. Pyrrhotite forms submosaic aggregates of grains averaging Ø.Ø3-Ø.Ø7 mm in size, and a few coarser grained patches with grains up to Ø.3 mm across. Sphalerite is deep orange-brown in color; it forms patches averaging Ø.2-Ø.5 mm in size. Some grains contain minor exsolution blebs of chalcopyrite. Chalcopyrite forms equant patches averaging Ø.Ø2-Ø.Ø5 mm in size, and a very few irregular patches up to Ø.3 mm across.

In the quartz-rich zone, pyrite forms disseminated subhedral to euhedral grains averaging Ø.Ø5-Ø.15 mm in size. In the epidote-rich zone, pyrite forms a very few subhedral, equant grains averaging Ø.1-Ø.2 mm across, mainly surrounded by pyrrhotite.

A late, continuous veinlet Ø.Ø2-Ø.Ø3 mm wide and a few, smaller discontinuous ones contain lenses of pyrite and hematite. Pyrite occurs mainly where the veinlets cut sulfide patches. Locally, along the main pyrite veinlet, pyrrhotite is altered to secondary marcasite/pyrite. Hematite occurs mainly where the veinlet cuts the quartz-rich zone.

An irregular, discontinuous veinlet of chalcopyrite averaging Ø.Ø2-Ø.Ø5 mm wide cuts the epidote-rich patch.

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PROSPECTING REPORT ON THE TREAT 1 AND 3 CLAIMS

VANCOUVER MINING DIVISION

For

Clive Ashworth
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By

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13031 - 64th Avenue
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V3W 1X8

February 20, 1993

F. Yacoub

1992 WORK PROGRAM

On November 1 and 2, 1992 Fayz Yacoub and Thom Heah geologists carried out prospecting and rock sampling program on the Treat 1 and 3 claims. The main purpose of the program was to relocate the original old showings known as the Copper Group showings and to determine an exploration approach and recommendations for the next phase.

Two old showings have been located on the area of the claims during 1992 program.

First showing is located on the south side of Lone Jack Creek. It can be reached from the main logging road at the creek crossing about 50-60 meters above the logging road. A rusty gossan area of volcanic outcrop is exposed for approximately 50 meters around and crossing Lone Jack Creek at a steep hill located at and above a waterfall. Mineralization consists of massive to semi-massive magnetite, pyrrhotite with minor pyrite and chalcopyrite disseminated as .3-.5 mm cubes in medium to light grey dacitic andesitic tuff or flow, mineralization is obviously fracture controlled and fills tension cracks and joints. The best mineralized outcrops were located at the creek bed and much over-burden on both sides of Lone Jack Creek. Second showing is located along the main road cut approximately 200 meters north of Lone Jack Creek crossing. 60-70 meters of mineralized outcrop semi-exposed along the east side of the road. Mineralization consists of up to 15% disseminated pyrite and minor chalcopyrite in dark grey to green, rusty, weathered in parts basaltic tuff or flow interlayered with dacitic - andesitic rocks. Massive to semi massive patches of magnetite and pyrrhotite were also located along the road cut in rusty fractured blocks. The attitude of mineralization and fractures in this showing appears to be similar to the first showing and possibly a continuation of the same zone of mineralization. A total of seven rock samples were collected from the second showing

MINERALIZATION

Pyrite, magnetite, pyrrhotite, chalcopyrite and sphalerite are present in most of the pendant rock units as lenses of massive sulphides and as disseminations in skarns. Outcrops of massive sulphides are leached or oxidized at the surface due to the unstable nature of high sulphide minerals and form a series of gossans, consisting of siliceous iron oxides separated by soft yellow limonite areas.

Chalcopyrite and molybdenite occur as disseminations in stockworks and quartz veins.

ROCK GEOCHEMISTRY

SAMPLING	DESCRIPTION	VALUES
92TR/RA1	On the north side of Long Jack Creek, dark green, rusty basaltic tuff or flow interlayered with dacite, both contain disseminated pyrite up to 15% pyrite fracture controlled and fills tension joints.	.03% Cu, <.01% Pb, .07% Zn
92TR/RA3	Chip sample across 6 meters of Silicified andesite, disseminated with pyrite ± chalcopyrite.	.12% Cu, <.01% Pb,
92TR/RL1	Lithogeochem sample, hornblende or pyroxene basaltic tuff or flow. Sample taken from fresh country rock, no mineralization.	10.6% CaO, .93% K_2O, 43.29% SiO_2
92TR/RL2	Dark grey, fine-grained to massive basalt with quartz veinlets, 5% Py dissemination.	10.76% CaO, .16% K_2O, 48% SiO_2
92TR/RL2b	Dark grey, to black massive basalt, disseminated with 5% pyrite, quartz stringers.	11.33% CaO, .15% K_2O, 48.48% SiO_2
92TR/RL4	40 meters north of RL2b, prominent outcrop on east side of road, phylic dacite or rhyolite flow or tuff with quartz stringers. Lithogeochem sample of dacite flow with quartz eyes.	3.25% CaO, .42% K_2O, 73.55% SiO_2
92TR/RL5	Further down road, folded argillite, steeply (45 -70) west dipping. Folds have gentle to moderate south plunges. Lithogeochem sample taken from folded argillite.	4.24% CaO, 2.2% K_2O, 58.95% SiO_2

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Page Number : 1
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CERTIFICATE OF ANALYSIS A9224499

SAMPLE	PREP CODE		Al_2O_3 %	CaO %	Cr_2O_3 %	Fe_2O_3 %	K_2O %	MgO %	MnO %	Na_2O %	P_2O_5 %	SiO_2 %	TiO_2 %	LOI %	TOTAL %	Ba ppm	Nb ppm	Rb ppm	Sr ppm	Y ppm	Zr ppm
92TR/RL1	208	274	15.12	10.60	0.09	8.70	0.93	13.62	0.14	0.52	0.09	43.29	0.59	4.67	98.36	340	< 10	< 5	130	20	20
92TR/RL2	208	274	12.90	10.76	< 0.01	13.91	0.16	6.28	0.24	2.50	0.22	48.00	2.31	1.05	98.34	70	10	< 5	250	50	120
92TR/RL2B	208	274	13.44	11.33	< 0.01	10.81	0.15	6.07	0.18	3.28	0.21	48.48	2.28	1.88	98.12	70	10	< 5	310	50	120
92TR/RL4	208	274	15.46	3.25	< 0.01	1.54	0.42	1.21	0.05	4.71	0.14	73.55	0.37	1.24	101.95	340	< 10	< 5	480	10	110
92TR/RL5	208	274	15.52	4.24	< 0.01	8.18	2.20	4.09	0.12	2.26	0.29	58.95	0.83	3.25	99.94	1010	< 10	28	350	30	80

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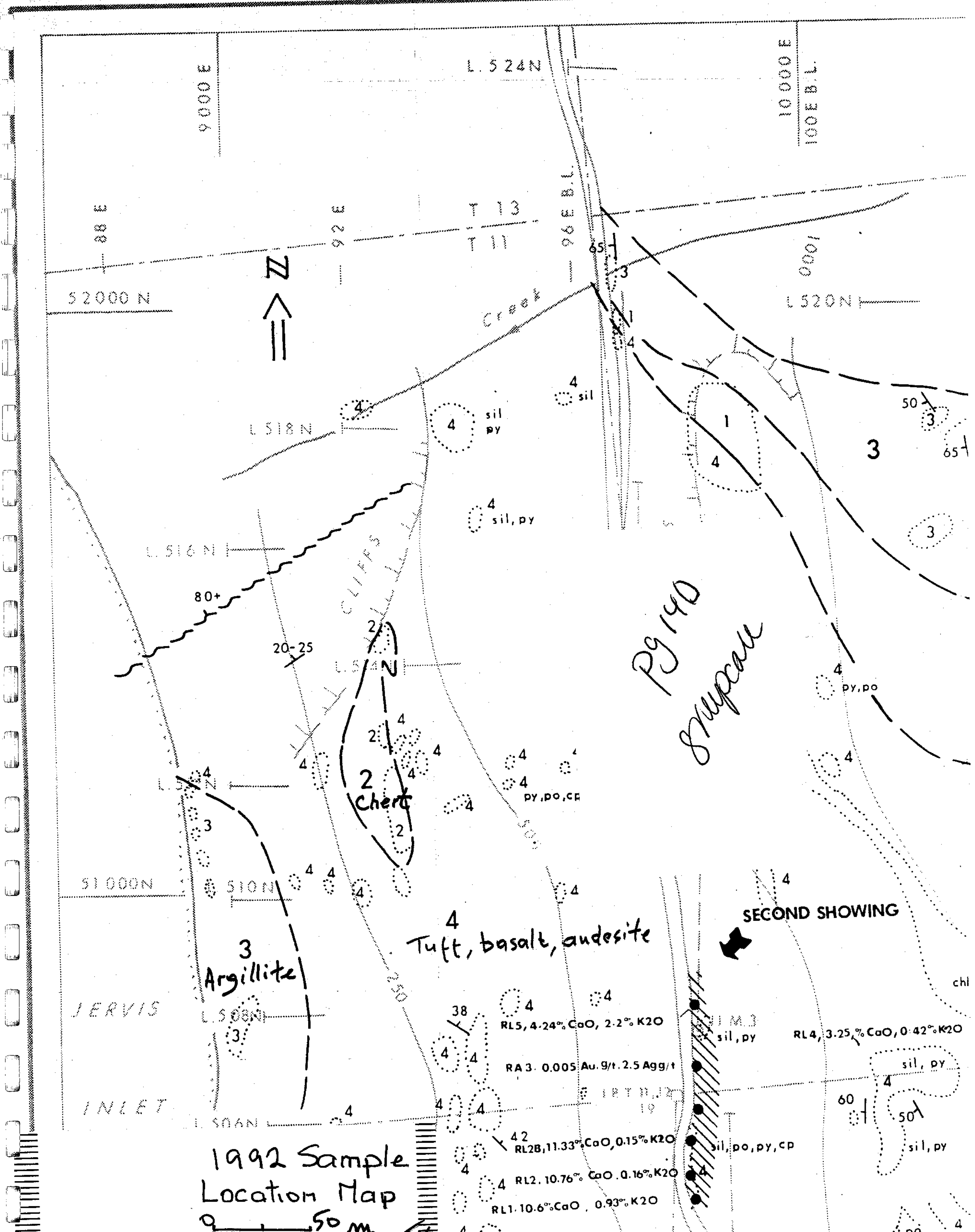
CERTIFICATE OF ANALYSIS A9224498

SAMPLE DESCRIPTION	PREP CODE		Au g/t FA+AA	Ag g/t	Cu %	Pb %	Zn %
92TR/RA1	208	274	< 0.005	0.3	0.03	< 0.01	0.07
92TR/RA3	208	274	< 0.005	2.5	0.12	< 0.01	1.52

CERTIFICATION: B. Cargill



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88 E
92 E
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L 518N
L 516N
CLIFFS
80+
20-25
L 514N
2
Chert
51000N
510N
SECOND SHOWING
4
Tuff, basalt, andesite
3
Argillite
JERVIS
INLET
L 508N
L 506N
250
RL5, 4.24% CaO, 2.2% K2O
RA3 0.005 Au g/t, 2.5 Ag g/t
RL2B, 11.33% CaO, 0.15% K2O
RL2, 10.76% CaO, 0.16% K2O
RL1, 10.6% CaO, 0.93% K2O
RL4, 3.25% CaO, 0.42% K2O
sil, py
sil, po, py, cp
py, po
py, po, cp
sil
Pg 140
Sheepcase
1992 Sample
Location Map
0 50 m

CONCLUSIONS

Significant results from previous work by El Paso and by Ashworth Explorations, all soil, Mag and V.L.F. anomalies occurs over a mafic volcanic tuff area that has undergone intense silicification and pyritization.

All showings appear to be related to the contact between the Coast Range intrusives and northwest trending bands of argillites and volcanics.

Magnetite, pyrrhotite and pyrite appear to be common and present in most of the rocks as well as disseminations.

Although, 1992 rock sampling did not return high K_2O and SiO_2 to suggest any similarity with Britannia Mine. Treat 1 and 3 property has good potential for hosting an economic Cu, Pb, Zn mineralization for the following reasons:

* The Treat 1 and 3 claims are situated in an area that is well known for hosting gold, copper, lead and zinc mineralization. The Britannia Mine is located 52 kilometres to the southeast of the property.
* The property is underlain by sheared, silicified volcanics intercalated with metasediments in contact with the Coast Range Intrusive Complex. this geological setting is a favourable environment for hosting economic mineralization.

* Significant results form previous work by El Paso Mining and Milling Company as well as results from previous work by Ashworth Explorations Limited during 1987-1988.
* Four old showings known as the Copper Showings occur within the area of the claims.
* 1992 Field program has covered only a small portion of the claim. Good potential exists for locating significant mineralization on the claims.

RECOMMENDATIONS

1. Perform follow-up work on the area of the two showings found during the 1992 field program. The work should consist of putting in 20 kilometres of grid lines (100 meters and 50 meters spacing).
2. Carry out detailed geological mapping and rock sampling over the area of the grid.
3. Carry out magnetometer and VLF-EM geophysical survey over the grid area to evaluate previous results and define drill targets.

Estimated Cost is $75,000.

PROPOSED BUDGET
JERVIS INLET PROPERTY
TREAT 1 AND 3 CLAIMS

Geological, Geophysical Fieldwork Program (four man crew, 22 days)

Project Preparation (four man crew, two days) includes preparation of maps, aerial photographs, field supplies and warehouse work	$ 2,250
Mob/Demob (four man crew, two days) includes wages, travel, food and accommodation	3,310
Field Crew project geologists, prospector, geotechnician and geophysical operator	27,500
Field Cost includes food and accommodation, supplies and communications	9,900
Lab Analysis 150 Rock Samples @ $18/sample	2,700
Petrographic Analysis (Thin Section)	800
Geophysical Survey Mag + VLF @ $250/day x 20 days	5,000
Geophysical interpretation	2,500
Photo interpretation	1,000
Report includes maps, plotting and drafting, report writing, word processing, copying and binding	6,000
Sub Total	$ 60,460
Administration Costs @ 15%	9,069
Sub Total	$ 69,529
GST @ 7%	4,867
TOTAL	**$ 74,391**
say	**$ 75,000**

Respectfully Submitted by
Fayz Yacoub, B.Sc., F.G.A.C.
February 20, 1993

F. Yacoub

REFERENCES

B.C. Dept. of Mines and Petroleum Resources, 1970. Geology, Exploration and Mining in British Columbia.

B.C. Minister of Mines Report,1917.
1922.
1925.

Bacon, W.R., 1957. Geology of Lower Jervis Inlet, B.C. Dept. of Mines Bulletin 39.

Folk, P., 1975. Geological and Geochemical Survey on the Bun Claims, Assessment Report 5,775.

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Malcolm, D.C., 1968. B.J. Group, Jervis Inlet, private company report.

Tomlinson, F.C., 1971. Geological Report on the Fang Nos. 1-14 Inclusive and Egg Nos. 1-2, for Thunder Valley Mines Ltd., private company report.

Kidlark and Yacoub, 1989. Geological Report on the Jervis Inlet Property for Clive Ashworth.

CERTIFICATE

I, FAYZ F. YACOUB, of 13031 - 64th Avenue, Surrey, British Columbia, V3W 1X8, do hereby declare:

1. That I am a graduate in geology and chemistry from Assuit University, Egypt (B.Sc. 1967), and Mining Exploration Geology of the International Institute for Aerial Survey and Earth Sciences (I.T.C.), Holland (Diploma 1978).

2. I have actively pursued my career as a geologist for the past eighteen years.

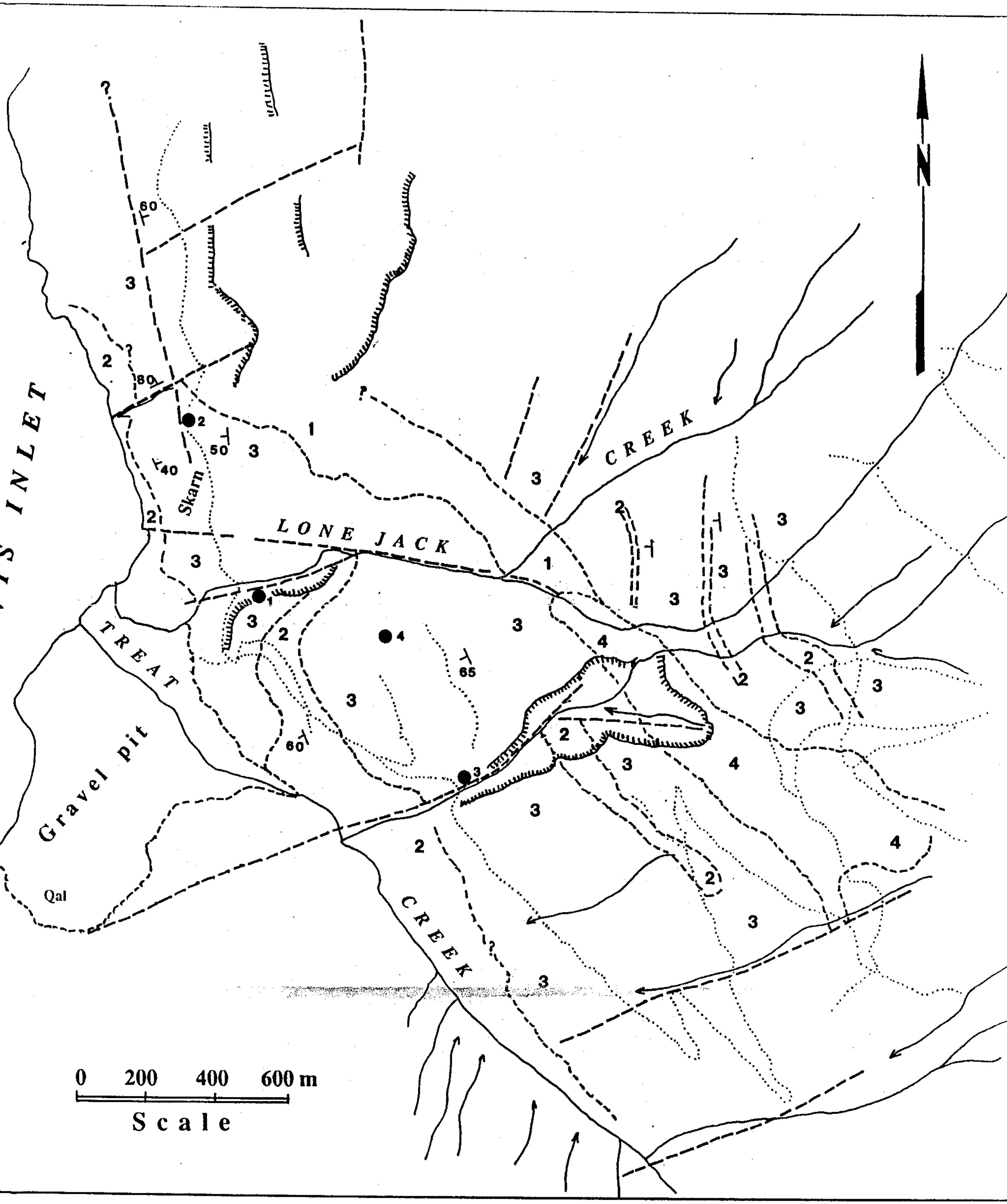
3. The information, opinions, and recommendations in this report are based on fieldwork carried out by myself, and on published and unpublished literature. I was present on the subject property on November 1 and 2, 1987, November 23, 1988, and November 1 and 2, 1992.

4. I have no interest, direct or indirect, in the subject claims.

5. I consent to the use of this report in a Prospectus or Statement of Material Facts for the purpose of private or public financing.

Fayz F. Yacoub, B.Sc.

Dated at Vancouver, February 22, 1993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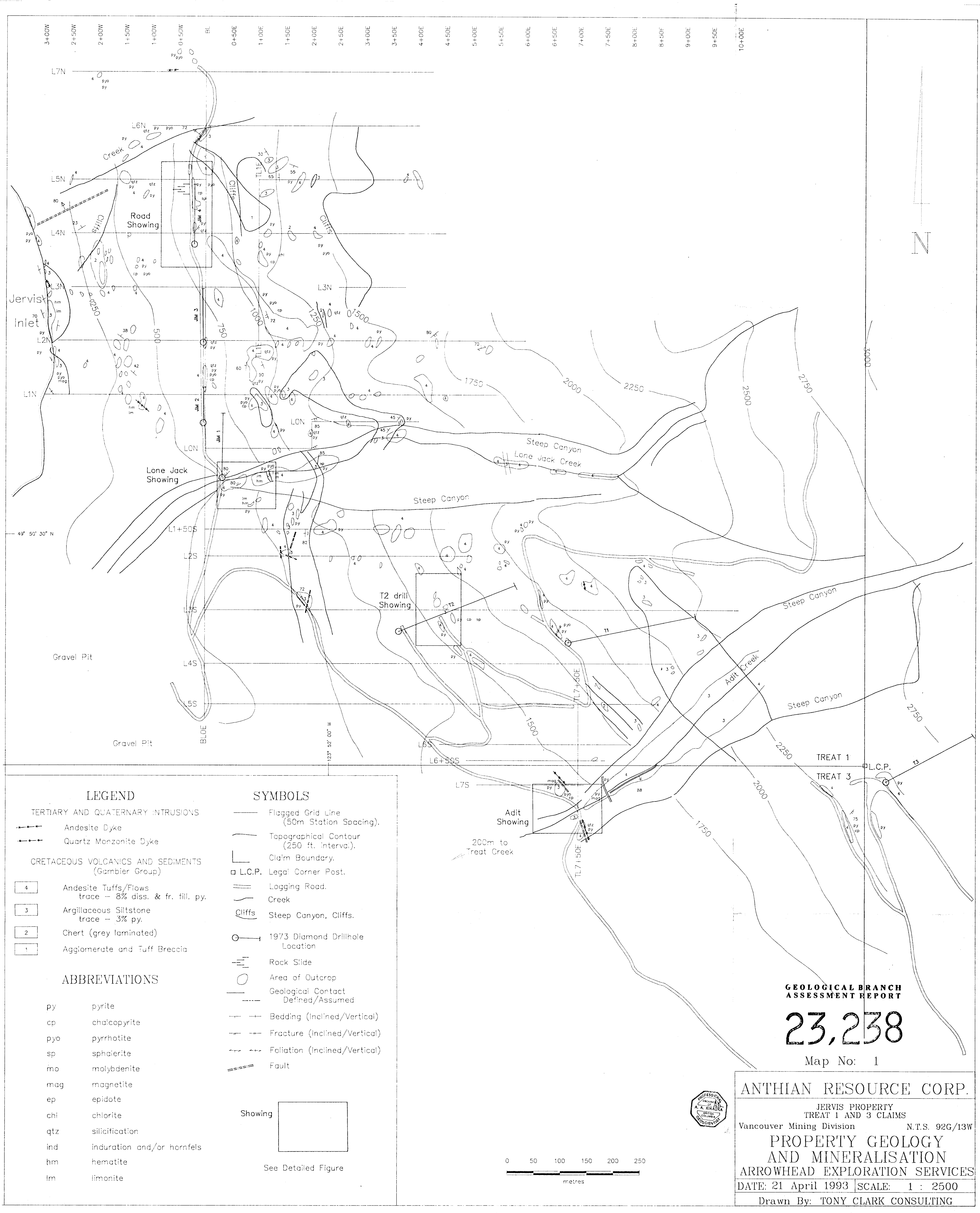
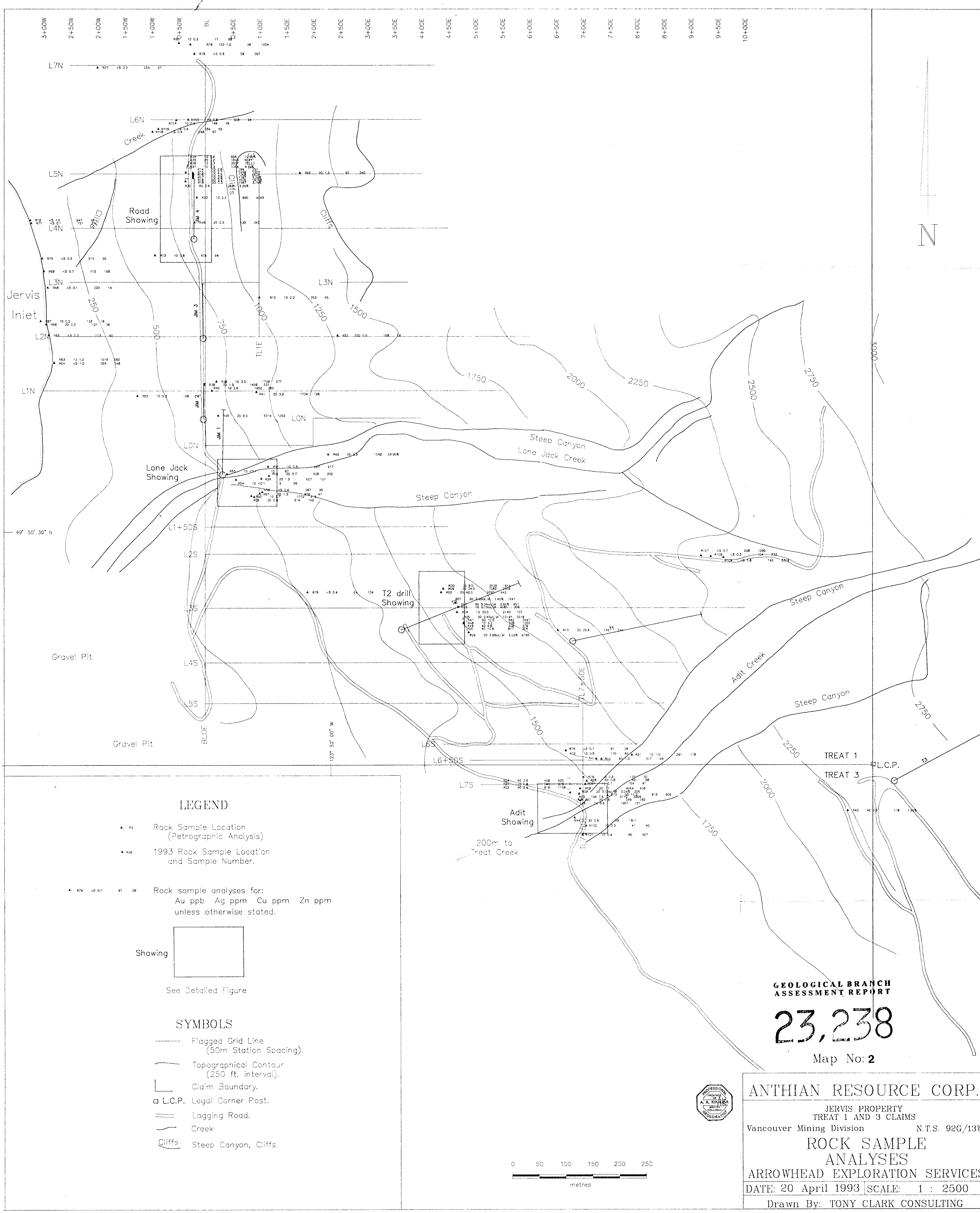
INLET
LONE JACK
CREEK
TREAT
CREEK
Skarn
Gravel pit
Qal
0 200 400 600 m
Scale


Jervis Inlet
Road Showing
Lone Jack Showing
T2 drill Showing
Adit Showing
Gravel Pit
Steep Canyon
Lone Jack Creek
Adit Creek
Creek
Cliffs
200m to Treat Creek
TREAT 1
TREAT 3
L.C.P.
49° 50' 30" N
123° 52' 00" W
N
LEGEND
TERTIARY AND QUATERNARY INTRUSIONS
Andesite Dyke
Quartz Monzonite Dyke
CRETACEOUS VOLCANICS AND SEDIMENTS (Gambier Group)
4 Andesite Tuffs/Flows trace – 8% diss. & fr. fill. py.
3 Argillaceous Siltstone trace – 3% py.
2 Chert (grey laminated)
1 Agglomerate and Tuff Breccia
ABBREVIATIONS
py pyrite
cp chalcopyrite
pyo pyrrhotite
sp sphalerite
mo molybdenite
mag magnetite
ep epidote
chl chlorite
qtz silicification
ind induration and/or hornfels
hm hematite
lm limonite
SYMBOLS
Flagged Grid Line (50m Station Spacing).
Topographical Contour (250 ft. interval).
Claim Boundary.
L.C.P. Legal Corner Post.
Logging Road.
Creek
Cliffs Steep Canyon, Cliffs.
1973 Diamond Drillhole Location
Rock Slide
Area of Outcrop
Geological Contact Defined/Assumed
Bedding (Inclined/Vertical)
Fracture (Inclined/Vertical)
Foliation (Inclined/Vertical)
Fault
Showing
See Detailed Figure
0 50 100 150 200 250
metres
GEOLOGICAL BRANCH ASSESSMENT REPORT
23,238
Map No: 1
ANTHIAN RESOURCE CORP.
JERVIS PROPERTY
TREAT 1 AND 3 CLAIMS
Vancouver Mining Division
N.T.S. 92G/13W
PROPERTY GEOLOGY AND MINERALISATION
ARROWHEAD EXPLORATION SERVICES
DATE: 21 April 1993
SCALE: 1 : 2500
Drawn By: TONY CLARK CONSULTING


3+00W
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L7N
L6N
L5N
L4N
L3N
L2N
L1N
L0N
L1+50S
L2S
L3S
L4S
L5S
L6S
L6+50S
L7S
Creek
Road Showing
Cliffs
Jervis Inlet
JIM 4
JIM 3
JIM 1
TL1E
TL7+50E
BL0E
Lone Jack Showing
Steep Canyon
Lone Jack Creek
Adit Creek
T2 drill Showing
Adit Showing
200m to Treat Creek
Gravel Pit
49° 50' 30" N
123° 52' 00" W
TREAT 1
TREAT 3
L.C.P.
N
250
500
750
1000
1250
1500
1750
2000
2250
2500
2750
3000
LEGEND
Rock Sample Location (Petrographic Analysis)
1993 Rock Sample Location and Sample Number.
Rock sample analyses for: Au ppb Ag ppm Cu ppm Zn ppm unless otherwise stated.
Showing
See Detailed Figure
SYMBOLS
Flagged Grid Line (50m Station Spacing).
Topographical Contour (250 ft. interval).
Claim Boundary.
L.C.P. Legal Corner Post.
Logging Road.
Creek
Cliffs Steep Canyon, Cliffs.
GEOLOGICAL BRANCH ASSESSMENT REPORT
23,238
Map No: 2
0 50 100 150 200 250
metres
ANTHIAN RESOURCE CORP.
JERVIS PROPERTY
TREAT 1 AND 3 CLAIMS
Vancouver Mining Division
N.T.S. 92G/13W
ROCK SAMPLE ANALYSES
ARROWHEAD EXPLORATION SERVICES
DATE: 20 April 1993
SCALE: 1 : 2500
Drawn By: TONY CLARK CONSULTING