GEOLOGICAL AND GEOCHEMICAL REPORT

ON THE

GOOD SPORT GROUP

N.T.S. 92L/6

50°22'30"N, 127°12'30"W

NANAIMO MINING DIVISION

Owner/Operator: Noranda Exploration Company, Limited
(no personal liability)

Authors : Joan E. McCorquodale
Dennis R. Bull

Date : February 1991

FILE:GOODSPORT

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TAYWIN-MERRY WIDOW PROPERTY LOCATION MAP

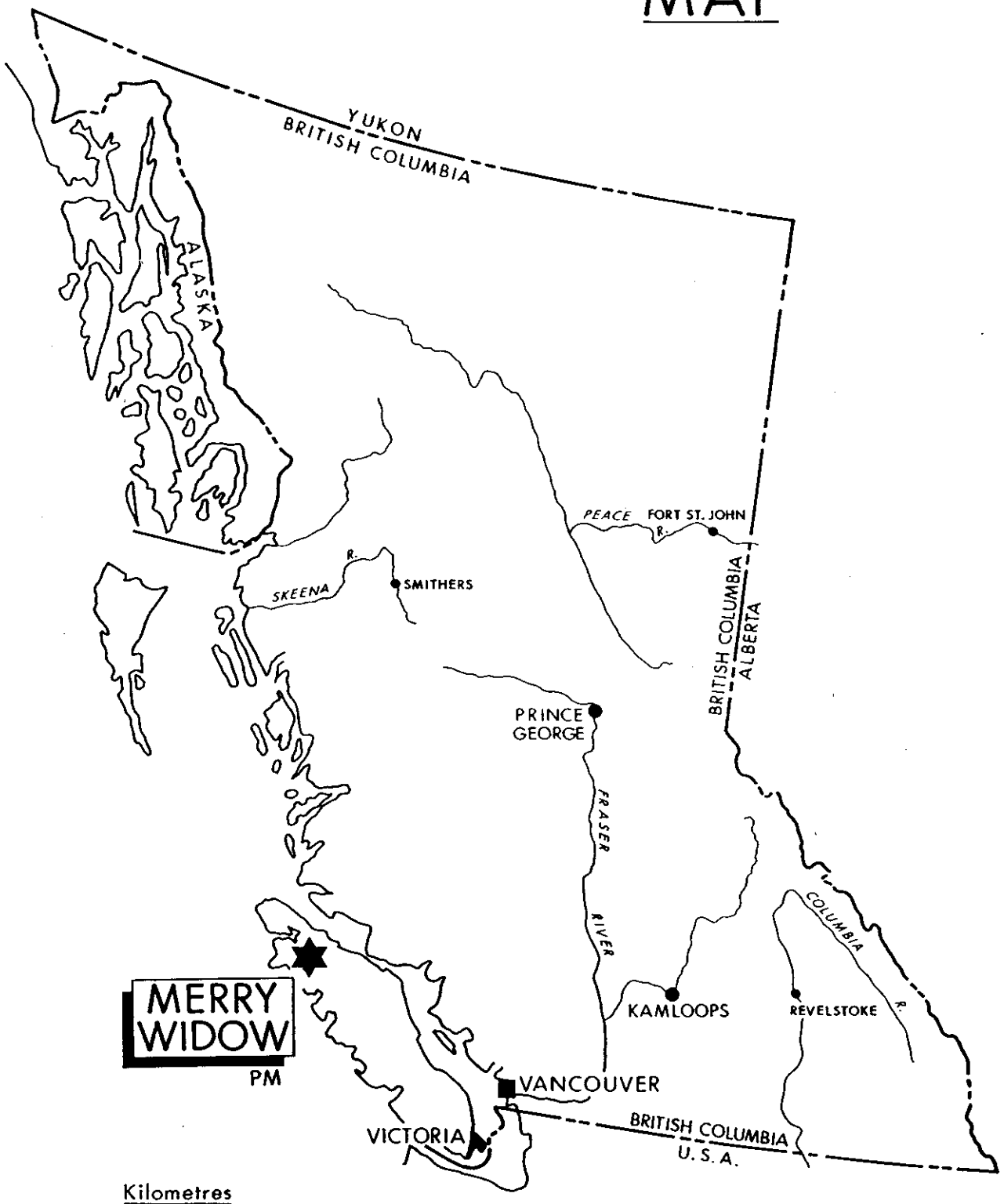
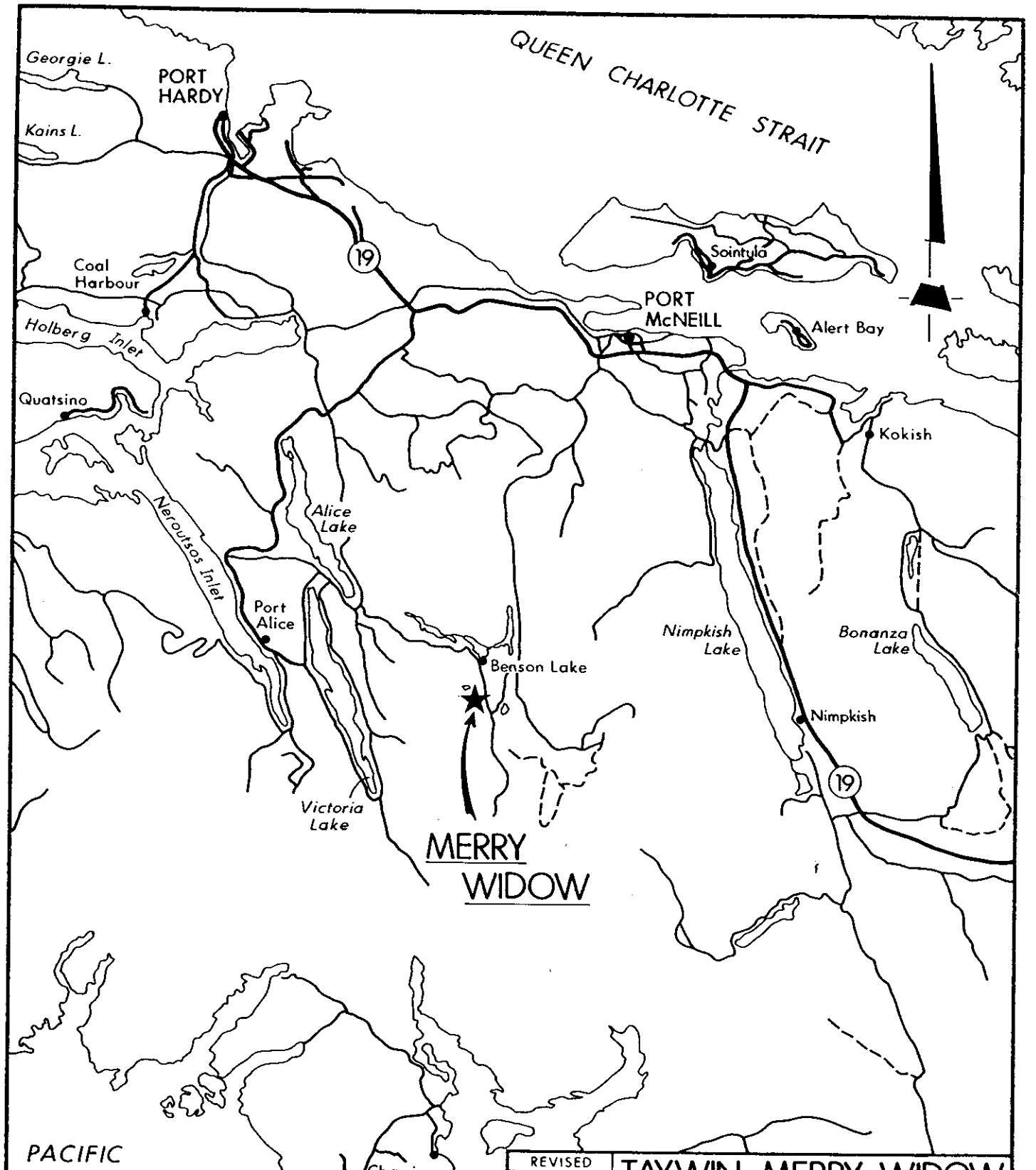


FIGURE 1

noranda

P.J.A./91



REVISED	TAYWIN-MERRY WIDOW
	ROAD ACCESS FROM PORT McNEILL AND PORT HARDY
PROJ No 132	SURVEY BY ____ DATE 1991
NTS 92L/6	DRAWN BY J.Serwin SCALE ____
DWG No 2	NORANDA EXPLORATION
	OFFICE VANCOUVER

NOI-774

1.0 INTRODUCTION

1.1 Location and Access

The Good Sport property is located 30 km southwest of Port McNeill, B.C. on the northern end of Vancouver Island, as shown on Figures 1 and 2.

The approximate centre of the claim block is located at latitude 50°22'30"N, longitude 127°12'30"W. The area is covered by map sheet N.T.S. 92L/6 at a scale of 1:50,000.

Access to the property is via the Benson Main logging road from Port McNeill. This gravel road is well maintained year round by MacMillan Bloedel Limited, except for short periods during some winters when snow fall is unusually heavy.

The distance by road from Port McNeill to the centre of the property is approximately 38 km. The property may also be reached via Alice Lake logging road from Port Hardy. This route is less favourable, due to washouts and may not be passable during the winter due to snow conditions.

Road access routes from Port McNeill and Port Hardy are shown on Figure 2.

1.2 Physiography, Climate and Vegetation

The topography of the region is fairly rugged, with elevations ranging from 520 m to 180 m on the lake shore of Lac Truite.

The climate is generally mild, with heavy annual precipitation of 2500 mm or more. During winter months, much of this falls as snow, with accumulations up to one metre by mid-March. By the middle of April, most of the snow accumulated over the winter has gone. Fieldwork can therefore, most years, begin in early May.

Mean temperatures range from +9°C (max.) to +1°C (min.) in spring and summer, and from +2°C to -4°C in fall and winter.

REVISED

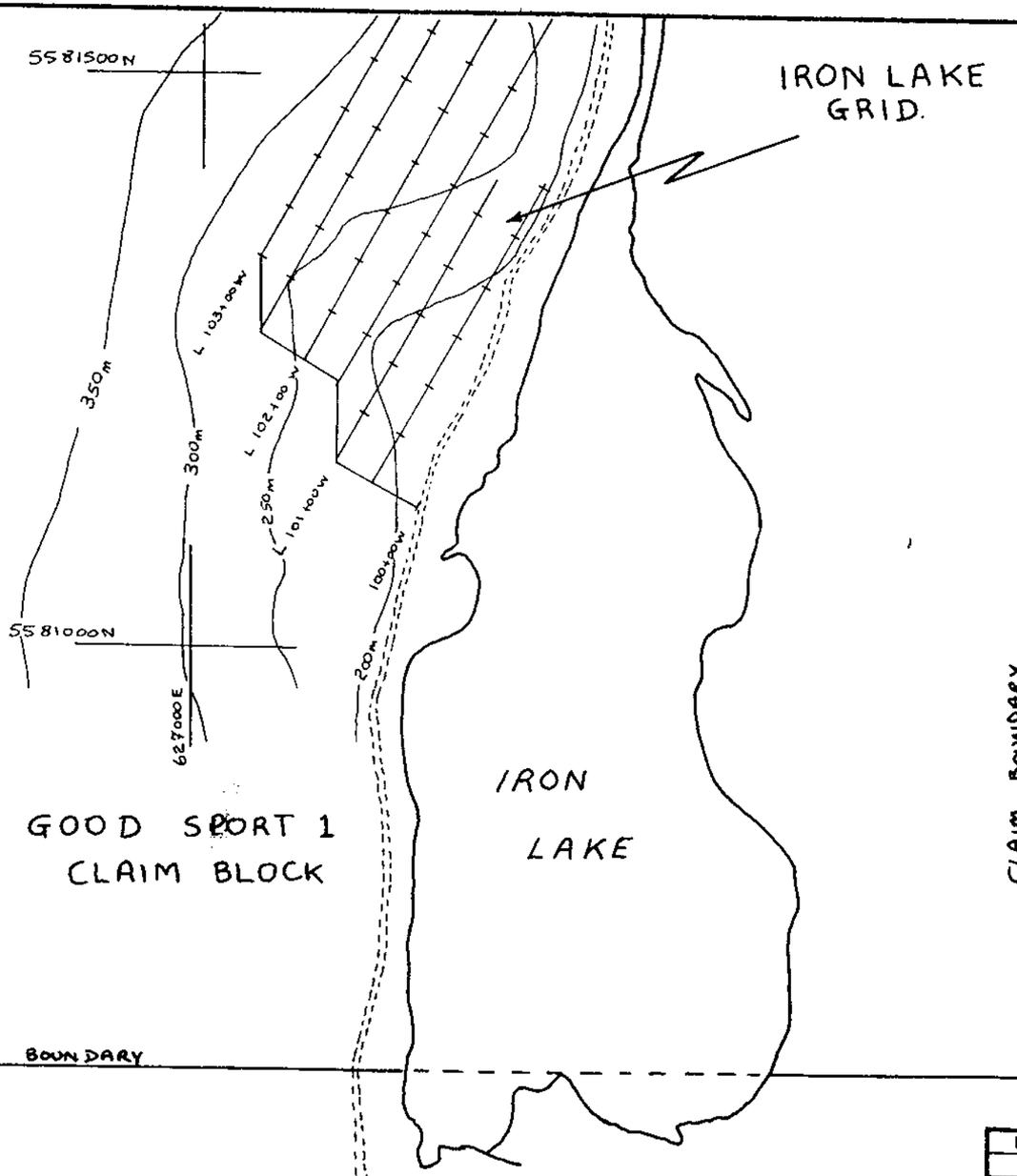
TAYWIN-MERRY WIDOW
GOOD SPORT GROUP
CLAIM MAP

PROJ. No. 132
N.T.S. 92L/6
DWG. No. 3

SURVEY BY: _____ DATE: 1991
DRAWN BY: J. Serwin SCALE: 1:50,000

NORANDA EXPLORATION
OFFICE: VANCOUVER

NCI-774



N

GEOLOGICAL BRANCH
ASSESSMENT REPORT

21,074

0 50 100 200 300
SCALE of METRES

REVISED	TAYWIN - MERRY WIDOW
	GOOD SPORT GROUP MAP SHOWING LOCATION OF IRON LAKE GRID RELATIVE TO CLAIM BOUNDARIES.
PROJ. No. 132	SURVEY BY: D.R.B. DATE: FEB. 1991
N.T.S. 92L/6	DRAWN BY: D.R.B. SCALE: see bar
DWG. No. 3a	NORANDA EXPLORATION OFFICE: VANCOUVER, B.C.

Whilst September 1990 had an average number of sunny vs. cloudy days, the months of October and November had above average rainfall, interspersed with hail, sleet and snow.

Vegetation consists of dense, mature forest of Hemlock, Cedar and Spruce. Thick underbrush in the mature forest makes foot travel slow and difficult. However, the network of logging roads partly compensates for this.

1.3 Claims

The property consists of 7 mineral claims (45 units) covering approximately 1083 hectares. A complete list of the mineral claims is give in Table 1. Figure 3 (claim map) shows all the above described claims.

TABLE 1: MINERAL CLAIMS

Claim Name	Record #	Type *	Units	Record Date	Due Date
Bend Fraction	3227	Fr.	1	12/12/88	12/12/92
Gold Sport	3158	TP	1	10/01/88	10/01/92
Good Sport 1	2987	MG	20	06/14/88	06/14/92
Good Sport 2	2988	MG	20	06/14/88	06/14/92
Lakeside	3230	TP	1	01/14/89	01/14/92
River Fraction	3229	FR	1	01/14/89	01/14/92
Shoreline Fr.	3226	FR	1	01/14/89	01/14/92

* FR = Fraction TP = Two Post MG = Modified Grid

1.4 Previous Work

Taywin Resources in conjunction with prospector James Laird completed reconnaissance style mapping, soil sampling and prospecting of the area in 1989. A geological examination was carried out as well as approximately 10 soil samples were collected along a roadside. Some of these samples were anomalous in gold and copper, however, since they were taken along the side of a logging road, contamination must be suspected.

In September 1990 Noranda Exploration optioned the property.

1.5 Personnel

The following Noranda Exploration personnel were employed on the property:

Dennis R. Bull	Project Geologist
Joan E. McCorquodale	Party Chief (geologist)
Steve Louden	Senior Fieldman
Paul Zaro	Fieldman
Darryl Hickey	Fieldman

1.6 Work Procedure

From the 7th. to 9th. November, 1990, eight mandays were spent establishing grid lines, soil sampling and completing geological examination of the property.

The Iron Lake grid was installed by running a baseline with a general trend of azimuth 325°. Several "dog legs" were necessary in order to avoid unclimbable cliffs. Cross lines were then run at 50 m spacings, with stations at 25 metres. Baseline and cross lines were run using compass and hip chain, with pink flagging hung to allow line of sight. Stations were marked using pink and lime green flagging.

1.7 Soil Geochemistry Survey

Soil samples were collected at 25 metre stations using spades or track-shovels. A total of 44 soil samples were collected.

Wherever possible, "B" horizon samples were collected. However, in some areas of poor soil development, since no "B" horizon was present, samples of "A" horizon were collected.

Samples collected were of between 0.5 to 1.0 kg wet weight. These were placed in wet strength Kraft paper bags and strung for air-drying prior to shipment to Noranda's laboratory in Vancouver. Each sample bag was marked with the corresponding line and station numbers, together with a coded description of the sample if it was taken from other than "B" horizon.

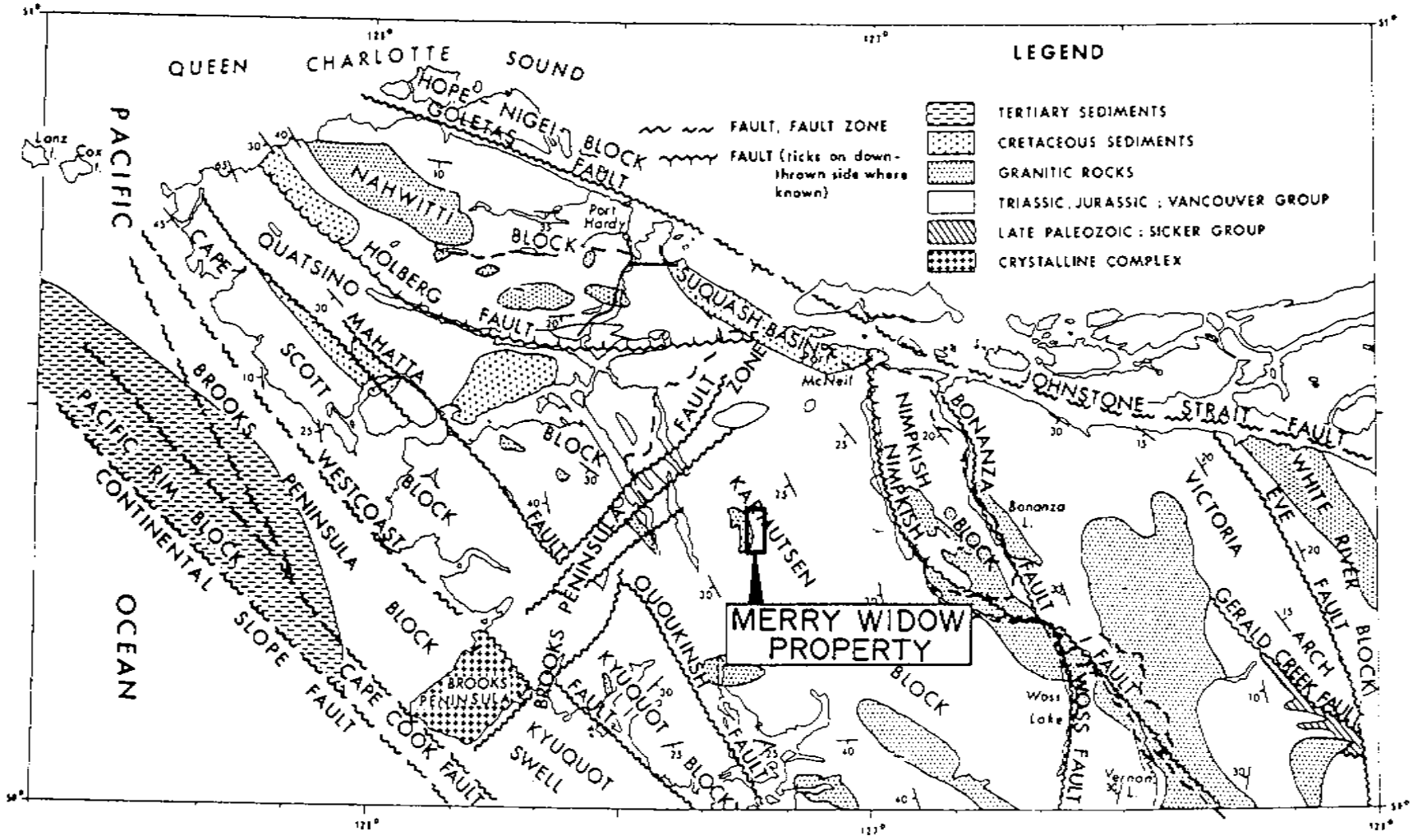


Figure 4

REGIONAL GEOLOGY of NORTHERN VANCOUVER ISLAND
showing
MAIN FAULTS and FAULT BLOCKS
(After Muller et al, 1974)

KILOMETRES
0 10 20 30 40 50

P.J.A./91

Please refer to Appendix I for detailed information of the Analytical Method.

A total of 44 soil samples were collected and analyzed. 2.9 km of grid line was established. See Figures 6, 7 and 8 for soil chemistry results plotted on the Iron Lake grid.

2.0 GEOLOGY

2.1 Regional Geology

The Good Sport Group lays within the Alert - Cape Scott map area (92L-102I) which was most recently mapped by J.E. Muller, K.E. Northcote, and D. Carlisle (G.S.C. Paper 74-8, Map 1552A, 1974). Earlier mapping in the region was done by G.M. Dawson (1887), C.H. Clapp (1912), V. Dolmage (1919), H.C. Gunning (1930, 1932).

The region in and around the property is underlain by a conformable sequence of rocks of the Vancouver and Bonanza Groups. Contacts between the formations comprising these groups are gradational.

Vancouver Group rocks in the region are (from oldest to youngest) as follows:

Karmutsen Formation (Upper Triassic):

Basaltic flows, pillow lavas, breccia and aquagene tuffs, with minor interbeds of limestone.

Quatsino Formation (Upper Triassic):

Limestone consisting of thick bedded to massive brown-grey to black, light grey to white, fine to medium crystalline in the lower part, and medium to thin bedded limestone inter-laminated with black calcareous siltstone (1 to 5 cm thickness) in the upper part. The upper contact of the Quatsino Formation with the overlying Parsons Bay Formation is indicated by the appearance of thin beds and laminae of black calcareous silty mudstone, commonly containing halobia (Muller et al, 1974, P.13).

Parsons Bay Formation (Upper Triassic):

Carbonaceous, black limestone inter-laminated with black calcareous argillite and siltstone in the lower part and thin bedded calcareous siltstone volcaniclastic and feldspathic wacke in the upper part.

The Bonanza Group is comprised of the following formations:

Harbledown Formation (Lower Jurassic):

Non fissile, colour laminated feldpathic wacke in the lower part, grading into dark, thin bedded calcareous siltstones in the upper part.

Bonanza Formation Volcanics (Lower Jurassic):

Basaltic andesite to rhyodacite flows, interbedded with maroon and green ash to lapilli tuffs and volcanic breccias. Several clastic sedimentary units are interbedded with the volcanics, these consist of greywackes, shales and argillites and pebble conglomerates.

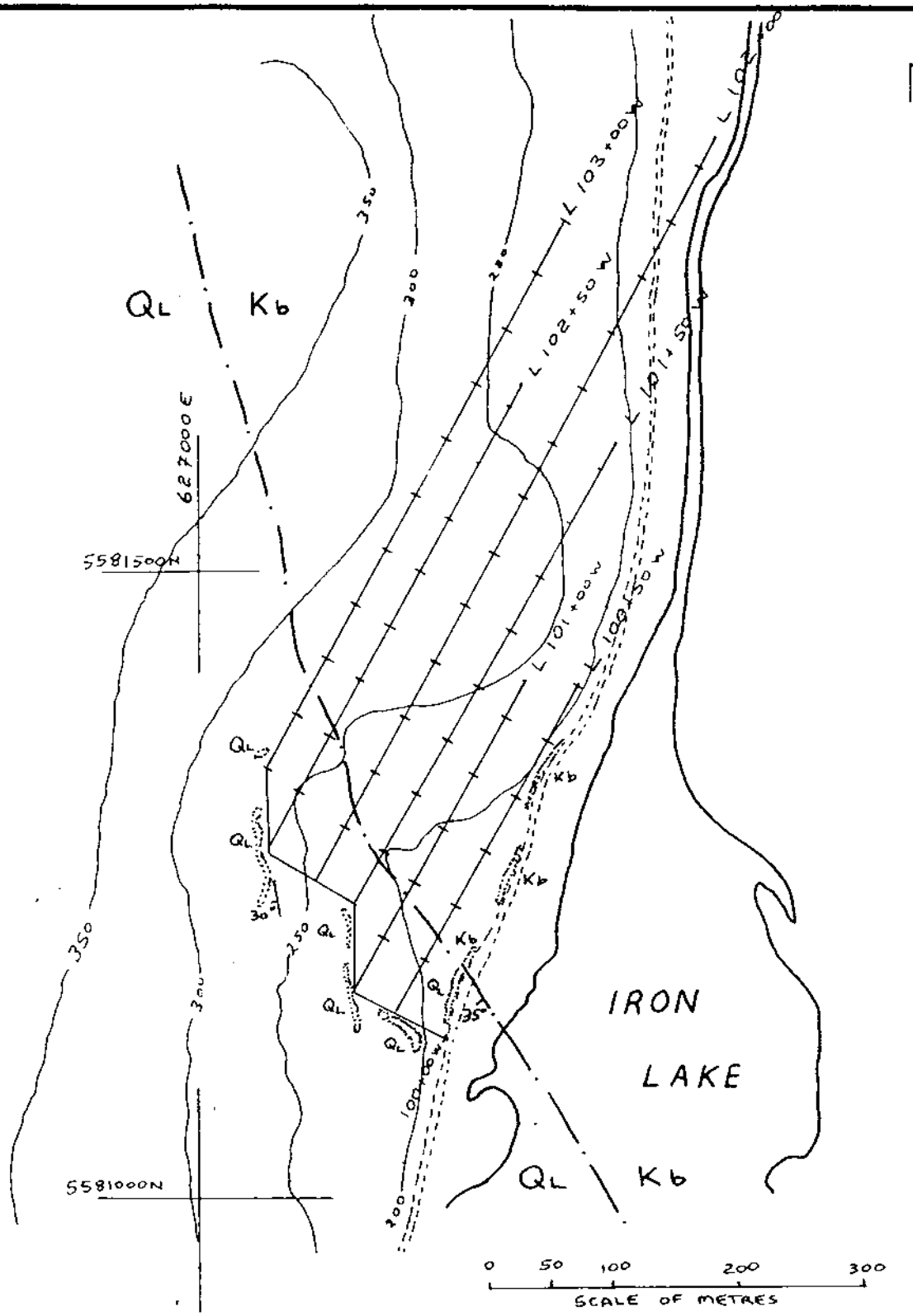
Intrusive Rocks:

Greenstone Intrusives:

The greenstone intrusives cut all of the above described stratigraphic units. These intrusives occur as dykes and minor sills. These intrusives are generally very fine grained, medium grey-green in colour, and are largely of andesitic composition. They are thought to have been the feeders to the Bonanza volcanics.

Island Intrusions:

Granitoid Island Intrusions of Middle Jurassic Age intrude all Vancouver and Bonanza Group rocks. Compositions of these intrusions vary from leuco quartz monzonite to gabbro, but the majority are granodiorite and quartz diorite with some quartz-feldspar porphyry. Muller et al (1974) believed that these intrusions are coeval with the higher stratigraphic levels of Bonanza volcanics; **"Age, geological relationship and similar, intermediate calc-alkalic composition are strong arguments for cogenetic association to Lower Jurassic (Bonanza) volcanics and (greenstone) intrusions"** (Northcote & Muller 1972, Volcanism, Plutonism & Mineralization, Vancouver Island, Bulletin of Can-Inst. Mining & Metallurgy, October 1972, P.49-57).



LEGEND

250	TOPOGRAPHIC CONTOUR (metres)
	SHORELINE
	LOGGING ROAD
	GEOLOGIC CONTACT, APPROXIMATE
	GRID LINE, STATIONS
QL	QUATSINO FM. LIMESTONE
Kb	KARMUTSEN FM. BASALT
30°	OUTCROP
30°	CONTACT ORIENTATION

REVISED	TAYWIN - MERRY WIDOW
	GOOD SPORT GROUP
	IRON LAKE GRID
	GEOLOGY
PROJ No 132	SURVEY BY J.E.M., D.R.B. DATE NOV. 90
NTS 92L/6	DRAWN BY D.R.B. SCALE see bar
DWG. No. 5	NORANDA EXPLORATION
	OFFICE: VANCOUVER

VANCAL 11927

Structure

As shown in Figure 4, the regional structure of Northern Vancouver Island is dominated by numerous major north west trending high angle faults. These faults divide the region into several great structural blocks which themselves are fractured into smaller fault segments by steeply dipping northerly and north-easterly trending faults.

Many of the faults are poorly exposed since they tend to lie beneath valleys and are covered by recent sediments and water. However, these faults are recognized by the abrupt offsets of stratigraphy, and from the distinct linear features on air photo and satellite imagery.

The Good Sport Group lies within the Karmutsen fault block and Vancouver and Bonanza Group strata within this area is tilted to the southwest at ~25~35°.

2.2 Property Geology

Reconnaissance style mapping was done along logging roads and grid lines over the eastern portion of the Good Sport group. This mapping concentrated on the area known to be underlain by the northwest trending contact between the underlying Karmutsen Formation basalt and overlying Quatsino limestone. This contact zone is locally referred to as the Old Sport horizon.

On the Coast Copper property, immediately west of the Good Sport block, the Old Sport horizon was previously mined for it's Cu, Au bearing sulfide mineralization. However, no mineralization was observed during mapping of the contact zone on the Good Sport group.

2.2.1 Lithologies

Karmutsen Volcanics: The Karmutsen volcanics proximal to the contact with the overlying Quatsino limestone consists of fine to medium grained basalt flows. These massive flows are primarily dark grey to dark maroon colour. Locally they contain 1-2 mm vesicules filled with calcite and/or quartz.

The only sulphide mineralization observed was traces of finely disseminated pyrite within the volcanic package.

Quatsino Limestone: The Quatsino limestone is light to dark grey in colour and fine to medium grained. Micritic content of the limestone varies and locally fossils were noted. Bedding is distinct and generally strikes 300° and dips 30° to the southwest.

The contact between the Karmutsen volcanics and Quatsino limestone is seen as gradational, as evidenced by the occasional interbed of basalt within the lower section of the limestone.

2.2.2 Structure

A north-northeast fault trends through Good Sport 1 claim that is down dropped on the east side. This fault is called the Benson River fault. It is a normal fault and may represent greater than 1000 metres vertical displacement.

2.2.3 Mineralization

A trace to less than 1% disseminated pyrite was observed with the Karmutsen basalt. This may well be syngenetic mineralization.

No other mineralization was observed in the Quatsino limestone or within the contact zone between the limestone and basalts.

3.0 1990 RESULTS AND RECOMMENDATIONS

The Iron Lake grid was installed to cover the area underlain by the Quatsino limestone/Karmutsen basalt contact (Old Sport Horizon) in the western part of the Good Sport group.

On the Coast Copper property, immediately to the west of the Good Sport group, the Old Sport horizon was previously mined for it's Cu-Au content.

All the soil samples returned only background Au, Cu, Ag, Co values. See Appendix II for more detail, and Figures 6, 7 and 8 for Au, Cu, Ag plotted results.

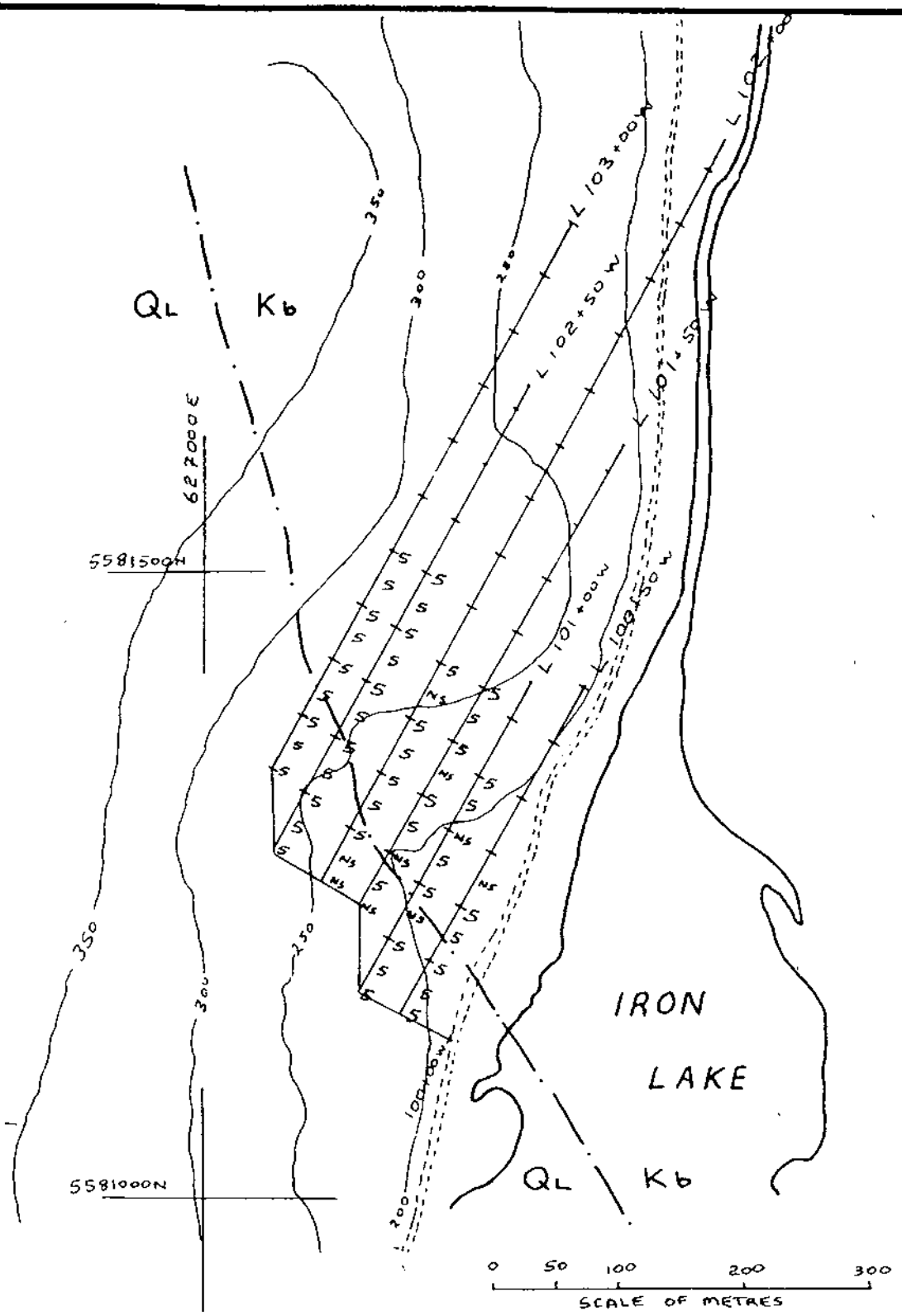
Except for traces of finely disseminated pyrite within the Karmutsen basalt, no evidence of mineralization of economic significance was observed during geological mapping.

3.1 Summary and Recommendations

Noranda Exploration's 1990 reconnaissance style programme on the Good Sport group consisted of geological mapping and prospecting, as well as the installation of the Iron Lake grid totalling 2.9 km of line and the collection and analysis of 44 soil samples. This grid overlays the Old Sport horizon (Quatsino limestone/Karmutsen basalt contact) in the western part of the Good Sport group. In the 1960's Cominco mined the Old Sport horizon for it's Cu, Au content located immediately west of the present day Good Sport group.

Between Cominco's old mine site and the Old Sport horizon on the Good Sport group there are two major down drop faults. These faults may represent barriers to migrating mineralizing fluids and hence the Old Sport horizon located within the area covered by the Iron Lake Grid may not have been mineralized.

However, approximately 4 km of this contact zone (Quatsino/Karmutsen) is still untested, and warrants further exploration.



LEGEND

250	TOPOGRAPHIC CONTOUR (metres)
	SHORELINE
	LOGGING ROAD
	GEOLOGIC CONTACT, APPROXIMATE
	GRID LINE, STATIONS
QL	QUATSINO FM. LIMESTONE
Kb	KARMUTSEN Fm. BASALT

REVISED	TAYWIN - MERRY WIDOW
	GOOD SPORT GROUP
	IRON LAKE GRID
	SOIL GEOCHEMISTRY
	Au. ppb
PROJ No 132	SURVEY BY J.E.M., D.R.B. DATE NOV. 90
NTS 92L/6	DRAWN BY D.R.B. SCALE see bar
DWG. No. 6	NORANDA EXPLORATION
	OFFICE: VANCOUVER

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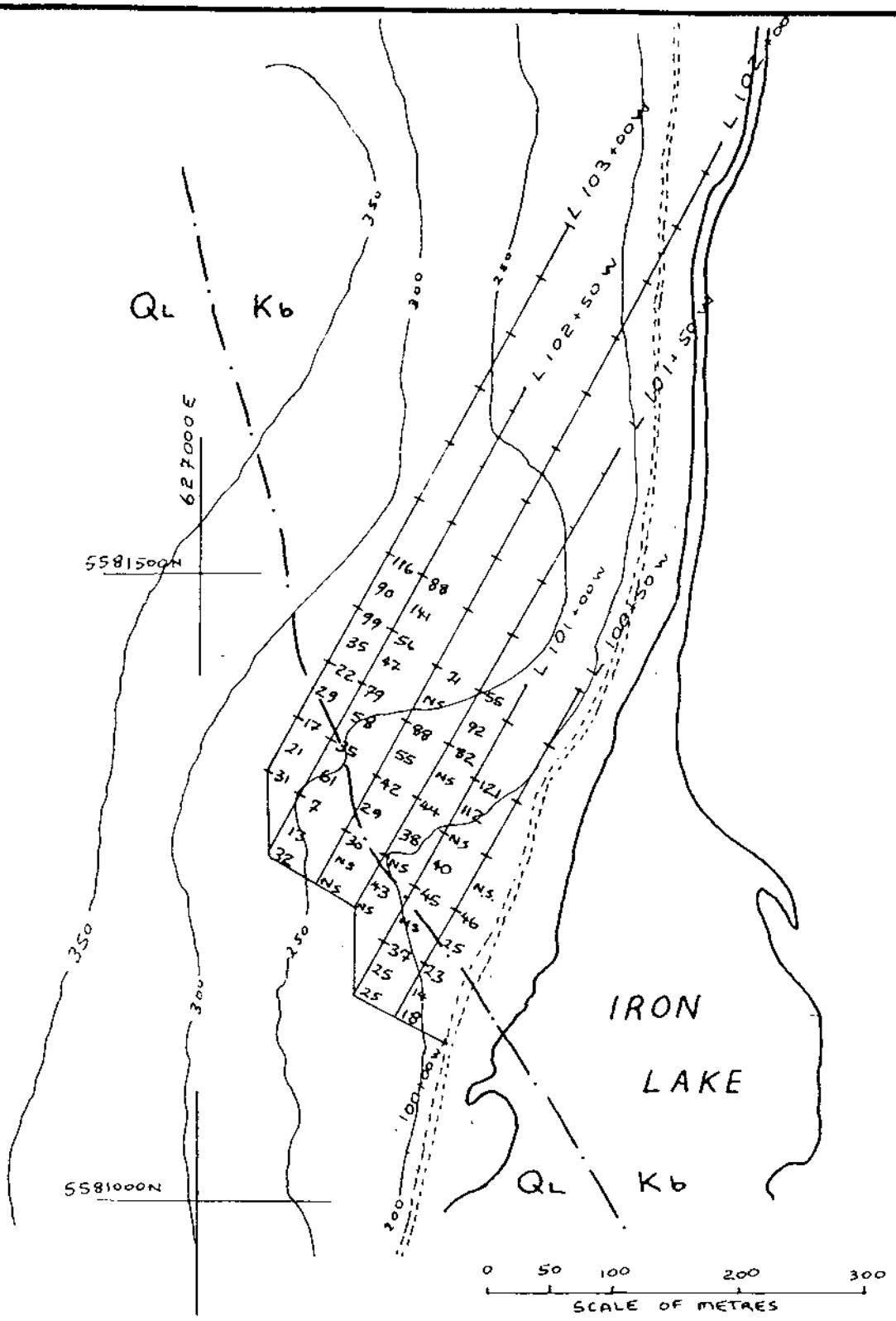

LEGEND

250	TOPOGRAPHIC CONTOUR (metres)
	SHORELINE
	LOGGING ROAD
	GEOLOGIC CONTACT, APPROXIMATE
	GRID LINE, STATIONS
Ql	QUATSINO FM. LIMESTONE
Kb	KARMUTSEN FM. BASALT

REVISED	TAYWIN - MERRY WIDOW
	GOOD SPORT GROUP
	IRON LAKE GRID
	SOIL GEOCHEMISTRY
	Cu. ppm
PROJ No 132	SURVEY BY J.E.M. & D.R.B. DATE NOV. 90
NTS 92L/6	DRAWN BY D.R.B. SCALE see bar
DWG. No. 7	NORANDA EXPLORATION
	OFFICE: VANCOUVER

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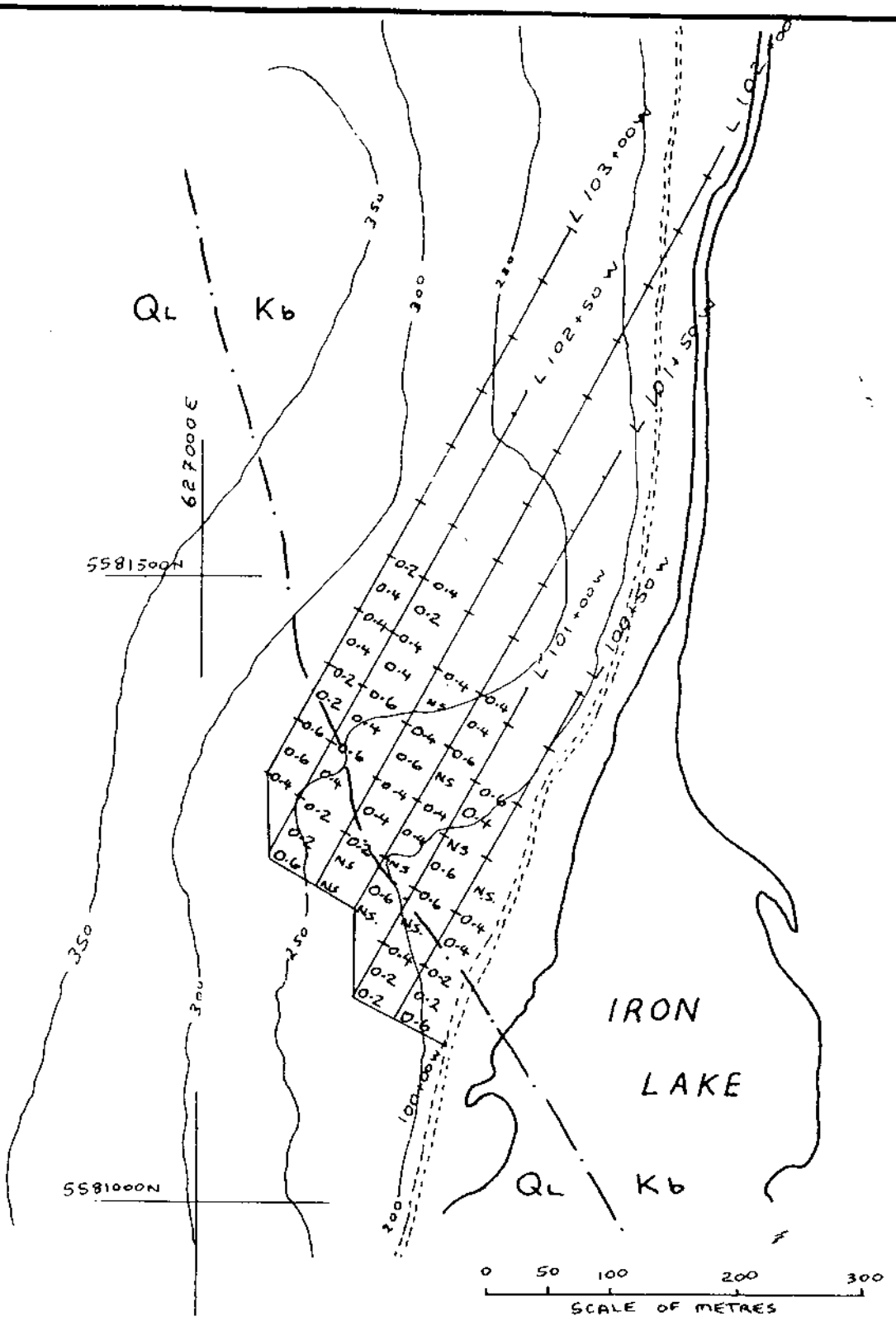

LEGEND

250	TOPOGRAPHIC CONTOUR (metres)
	SHORELINE
	LOGGING ROAD
	GEOLOGIC CONTACT, APPROXIMATE
	GRID LINE, STATIONS
QL	QUATSINO FM. LIMESTONE
Kb	KARMUTSEN FM. BASALT

REVISED	TAYWIN - MERRY WIDOW
	GOOD SPORT GROUP IRON LAKE GRID SOIL GEOCHEMISTRY Ag. ppm.
PROJ No. 132	SURVEY BY J.E.M., D.R.B. DATE: NOV. 90
NTS 92L/6	DRAWN BY: D.R.B. SCALE: see bar
DWG. No. 8	NORANDA EXPLORATION OFFICE: VANCOUVER

VANCAL 11927

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Northcote, K.E., & Muller, J.E. 1972: Volcanism, Plutonism and Mineralization, Vancouver Island. Bulletin of the Canadian Institute of Mining and Metallurgy.

APPENDIX I

Analytical Method Descriptions for Geochemical Assessment Reports

ANALYTICAL METHOD DESCRIPTIONS FOR GEOCHEMICAL ASSESSMENT REPORTS

The methods listed are presently applied to analyses geological materials by the Noranda Geochemical Laboratory at Vancouver.

Preparation of Samples:

Sediments and soils are dried at approximately 80°C and sieved with a 80 mesh nylon screen. The -80 mesh (0.18 mm) fraction is used for geochemical analysis.

Rock specimens are pulverized to -120 mesh (0.13 mm). Heavy mineral fractions (panned samples * from constant volume), are analysed in its entirety, when it is to be determined for gold without further sample preparation.

Analysis of Samples:

Decomposition of a 0.200 g sample is done with concentrated perchloric and nitric acid (3:1), digested for 5 hours at reflux temperature. Pulps of rock or core are weighed out at 0.4 g and chemical quantities are doubled relative to the above noted method for digestion.

The concentrations of Ag, Cd, Co, Cu, Fe, Mn, Mo, Ni, Pb, V and Zn can be determined directly from the digest (dissolution) with a conventional atomic absorption spectrometric procedure. A Varian-Techtron, Model AA-5 or Model AA-475 is used to measure elemental concentrations.

Elements Requiring Specific Decomposition Method:

Antimony - Sb: 0.2 g sample is attacked with 3.3 ml of 6% tartaric acid, 1.5 ml conc. hydrochloric acid and 0.5 ml of conc. nitric acid, then heated in a water bath for 3 hours at 95°C. Sb is determined directly from the dissolution with an AA-475 equipped with electrodeless discharge lamp (EDL).

Arsenic - As: 0.2 - 0.3 g sample is digested with 1.5 ml of perchloric 70% and 0.5 ml of conc. nitric acid. A Varian AA-475 equipped with an As-EDL is used to measure arsenic content in the digest.

Barium - Ba: 0.1 g sample digested overnight with conc. perchloric, nitric and hydrofluoric acid; Potassium chloride added to prevent ionization. Atomic absorption using a nitrous oxide-acetylene flame determines Ba from the aqueous solution.

Bismuth - Bi: 0.2 - 0.3 g is digested with 2.0 ml of perchloric 70% and 1.0 ml of conc. nitric acid. Bismuth is determined directly from the digest with an AA-475 complete with EDL.

Gold - Au: 10.0 g sample is digested with aqua regia (1 part nitric and 3 parts hydrochloric acid). Gold is extracted with MIBK from the aqueous solution. AA is used to determine Au.

Magnesium - Mg: 0.05 - 0.10 g sample is digested with 4 ml perchloric/nitric acid (3:1). An aliquot is taken to reduce the concentration to within the range of atomic absorption. The AA-475 with the use of a nitrous oxide flame determines Mg from the aqueous solution.

Tungsten - W: 1.0 g sample sintered with a carbonate flux and thereafter leached with water. The leachate is treated with potassium thiocyanate. The yellow tungsten thiocyanate is extracted into tri-n-butyl phosphate. This permits colourimetric comparison with standards to measure tungsten concentration.

Uranium - U: An aliquot from a perchloric-nitric decomposition, usually from the multi-element digestion, is buffered. The aqueous solution is exposed to laser light, and the luminescence of the uranyl ion is quantitatively measured on the UA-3 (Scintrex).

N.B.: If additional elemental determinations are required on panned samples, state this at the time of sample submission. Requests after gold determinations would be futile.

LOWEST VALUES REPORTED IN PPM:

Ag - 0.2	Mn - 20	Zn - 1	Au - 0.01
Cd - 0.2	Mo - 1	Sb - 1	W - 2
Co - 1	Ni - 1	As - 1	U - 0.1
Cu - 1	Pb - 1	Ba - 10	
Fe - 100	V - 10	Bi - 1	

EJvL/ie

ACME ANALYTICAL LABORATORIES LTD.
Assaying & Trace Analysis
852 E. Hastings St., Vancouver, B.C. V6A 1R6
Telephone: 253-3158

GEOCHEMICAL LABORATORY METHODOLOGY & PRICES - 1989

Sample Preparation

S80	Soils or silts up to 2 lbs drying at 60 deg.C and sieving 30 gms -80 mesh (other size on request)	$ .85
SJ	Saving part or all reject	.45
S20R	Soils or silts - drying at 60 deg.C and sieving -20 mesh & pulverizing (other mesh size on request.)	2.00
SP	Soils or silts - drying at 60 deg.C pulverizing (approx . 100 gms)	1.50
RP100	Rocks or cores - crushing to -3/16" up to 10 lbs, then pulverizing 1/2 lb to -100 mesh (98%)	3.00
Cr	Surcharge crushing over 10 lbs	.25/lb
2PX	Surcharge for pulverizing over 1/2 lb	1.00/lb
RPS100	Same as RP100 except sieving to -100 mesh and saving +100 mesh (200gms)	3.75
RPS100 1/2	Same as above except pulverizing 1/2 the reject - additional	1.00/lb
RPS100 A	Same as above except pulverizing all the reject - additional	1.00/lb
OP	Compositing pulps - each pulp Mixing & pulverizing composite.	.50 1.50
HM	Heavy mineral separation - S.G.2.96 + wash -20 mesh	12.00
V1	Drying vegetation and pulverizing 50 gms to -80 mesh	3.00
V2	Ashing up to 1 lb wet vegetation at 475 deg.C	2.00
H1	Special Handling	17.00/hr

Sample Storage

Rejects - Approx. 2 lbs of rock or total core are stored for three months and discarded unless claimed.

Pulps are retained for one year and discarded unless claimed.

Additional storage - for 3 years $10.00/1.2 cu.ft. box
or 15 cents/sample pulp
or 5 cents/sample soil

Supplies

Soil Envelopes	4" x 6"	$125.00/thousand
Soil Envelopes	4" x 6" with gusset	$140.00/thousand Plastic
Bags	7" x 13" 4 ml	$10.00/hundred
Plastic Bags	12" x 20" 6 ml	$ 20.00/hundred
Ties		$ 2.00/hundred
Assay Tags		N/C
10% HCl		$ 5.00/liter
Dropping bottles		$ 1.00/each
Zn Test	A & B	$ 12.00/each liter

Conversion Factors

1 Troy oz = 31.10 g
1 oz/ton = 34.3 ppm = 34.3 g/tonne = 34,300 ppb
1 % = 10,000 ppm

ACME ANALYTICAL LABORATORIES LTD.
Assaying & Trace Analysis
852 E. Hastings St., Vancouver, B.C. V6A 1R6
Telephone: 253-3158

GEOCHEMICAL ANALYSES - Rocks and Soils

Group 1 Digestion

.50 gram sample is digested with 3 mls 3-1-2 HCl-HNO3-H2O at 95 deg.C for one hour and is diluted to 10 ml with water. This leach is near total for base metals, partial for rock forming elements and very slight for refractory elements. Solubility limits Ag, Pb, Sb, Bi, W for high grade samples.

Group 1A - Analysis by Atomic Absorption.

Element	Detection	Element	Detection	Element	Detection
Antimony*	2 ppm	Copper	1 ppm	Molybdenum	1 ppm
Bismuth*	2 ppm	Iron	0.01 %	Nickel	1 ppm
Cadmium*	0.1 ppm	Lead	2 ppm	Silver	0.1 ppm
Chromium	1 ppm	Lithium	2 ppm	Vanadium	2 ppm
Cobalt	1 ppm	Manganese	5 ppm	Zinc	2 ppm

First Element $2.25 Subsequent Element $1.00

Group 1B - Hydride generation of volatile elements and analysis by ICP. This technique is unsuitable for sample grading over .5% Ni or Cu. Cu Massive Sulphide.

Element	Detection
Arsenic	0.1 ppm
Antimony	0.1 ppm
Bismuth	0.1 ppm
Germanium	0.1 ppm
Selenium	0.1 ppm
Tellurium	0.1 ppm

First Element $4.75 All Elements $5.50

Group 1C - Hg Detection limit - 5 ppb Price $2.50

Hg in the solutions are determined by cold vapour AA using a F & J scientific Hg assembly. The aliquots of the extract are added to a stannous chloride/hydrochloric acid solution. The reduced Hg is swept out of the solution and passed into the Hg cell where it is measured by AA.

Group 1D - ICP Analysis

Element	Detection
Ag	0.1 ppm
Cd,Co,Cr,Cu,Mn,Mo,Ni,Sr,Zn	1 ppm
As,Au,B,Ba,Bi,La,Pb,Sb,Th,V,W	2 ppm
U	5 ppm
Al,Ca,Fe,K,Mg,Na,P,Ti	0.01 %

Any 2 elements	$3.25
5 elements	4.50
10 elements	5.50
All 30 elements	6.25

Group 1E - Analysis by ICP/MS

Element	Detection
Ga,Ge	1 ppm
Au,Bi,Cd,Hg,In,Ir,Os,Re,Rh,Sb,Te,Th,Tl,U	0.1 ppm

All Elements 15.00 (minimum 20 samples per batch or $15.00 surcharge)

Hydro Geochemical Analysis

Natural water for mineral exploration

26 element ICP - Mo,Cu,Pb,Zn,Ag,Co,Ni,Mn,Fe,As,Sr,Cd,V,Ca,P, Li,Cr,Mg,Ti,B,Al,Na,K,Ce,Be,Si			$8.00
F by Specific Ion Electrode	- detection	20 ppb	$3.75
U by UA3	- detection	.01 ppb	5.00
pH		.1 pH	1.50
Au	- detection	.001 ppb	4.00

* Minimum 20 samples or $5.00 surcharge for ICP or AA and $15.00 surcharge for ICP/MS. All prices are in Canadian Dollars

ACME ANALYTICAL LABORATORIES LTD.
Assaying & Trace Analysis
852 E. Hastings St., Vancouver, B.C. V6A 1R6
Telephone: 253-3158

Group 2 - Geochemical Analysis by Specific Excraction and Instrumental Techniques

Element	Method	Detection	Price
Barium	0.100 gram samples are fused with .6 gm LiBO2 dissolved in 50 mls 5% HNO3 and analysed by ICP, (other whole rock elements are also determined)	10 ppm	$4.00
Boron	.5 g/Na2O2 fustion - 50ml in 20% HCl	2 ppm	4.00
Carbon	LECO (total as C or CO2)	.01 %	5.75
Carbon+Sulfur	Both by LECO	.01 %	6.50
Carbon (Graphite)	HCl leach before LECO	.01 %	8.00
Chromium	0.50 gram samples are fused with 1 gm Na2O2 dissolved in 50 ml 20% HCl, analysed ICP.	5 ppm	4.00
Fluorine	0.25 gram samples are fused with NaOH; leached solution is adjusted for pH and analysed by specific ion electrode.	10 ppm	4.50
Sulphur	LECO (Total as S)	.01 %	5.50
Sulphur insoluble	LECO (After 5% HCl leach)	.01 %	8.00
Tin	1.00 gram samples are fused with NH4I. The sublimed Iodine is leached with 5 ml 10% HCl, and analysed by Atomic Absorption.	1 ppm	4.00
Tl	.50 gram digested with 50% HNO3 - Dilute to 10 ml - graphite AA	.1 ppm	4.00
Tungsten	.50 gram samples are fused with Na2O2 dissolved in 20 ml H2O, analysed by ICP.	1 ppm	4.00

Group 3 - Geochemical Noble Metals

Element	Method	Detection	Price
Au*	10.0 gram samples are ignited at 600 deg.C, digested with hot aqua regia, extracted by MIBK, analysed by graphite furnace AA.	1 ppb	$ 4.50
Au** Pd,Pt,Rh	10.0 gram samples are fused with a Ag inquart with fire assay fluxes. After cupulation, the dore bead is dissolved and analysed by AA or ICP/MS.	1 ppb 2 ppb	6.00 - first element 2.50 - per additional 10.00 - for All 4

Larger samples - 20 gms add $1.50
30 gms add $2.50

Group 4A - Geochemical Whole Rock Assay

0.200 gram samples are fused with LiBO2 and are dissolved in 100 mls 5% HNO3.

SiO2, Al2O3, Fe2O3, CaO, MgO, Na2O, K2O, MnO, TiO2, P2O5, Cr2O5, LOI + Ba by ICP.

Price: $3.75 first metal $1.00 each additional $9.00 for All.

Group 4B - Trace elements

Element	Detection	Analysis	Price
Co,Cu,Ni,Zn,Sr	10 ppm	ICP	$3.75 first element or
Ce,Nb,Ta,Y,Zr	20 ppm	ICP	$1.00 additional to 4A
			$6.00 for All.

Group 4C - analysis by ICP/MS.

Be, Rb, Y, Zr, Nb, Sn, Cs, La, Ce, Pr, Nd, Sm, Eu, Gd, Tb, Dy, Ho, Er, Tm, Yb, Lu, Hf, Ta, W, Th, U

Detection: 1 to 5 ppm Price : $20.00 for All.

* Minimum 20 samples or $5.00 surcharge for ICP or AA and $15.00 surcharge for ICP/MS. All prices are in Canadian Dollars

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Regular Assay

Aluminum	(Al)	$ 7.00	Moisture	(H2O)	$ 5.00
Antimony	(Sb)	7.00	Molybdenum	(Mo)	7.00
Arsenic	(As)	7.00	Molybdenum Sulfide	(MoS2)	9.00
Barium	(Ba)	7.00	Niobium	(Nb)	10.00
Bismuth	(Bi)	7.00	Nickel	(Ni)	7.00
Boron	(B)	7.00	Nickel (Non-sulfide)		9.00
Cadmium	(Cd)	7.00	Palladium	(Pd)	10.00
Calcium	(Ca)	7.00	Phosphorus	(P)	7.00
Carbon (Total)	(C)	9.00	Platinum	(Pt)	10.00
Carbon (Graphitic)*		10.00	Potassium	(K)	7.00
Carbon plus Sulfur	(Total)*	11.00	Rhodium	(Rh)	10.00
Cerium	(Ce)	10.00	Rubidium	(Rb)	7.00
Chromium	(Cr)	7.00	Selenium	(Se)	10.00
Cesium	(Cs)	10.00	Silica	(SiO2)	7.00
Cobalt	(Co)	7.00	Silver	(Ag)	7.00
Copper	(Cu)	7.00	Silver (Fire Assay)		8.50
Copper (non-sulfide)*		8.00	Sodium	(Na)	7.00
Europium	(Eu)	20.00	Specific Gravity*	(SG)	7.00
Fluorine	(F)	7.00	Strontium	(Sr)	7.00
Gallium	(Ga)	7.00	Sulfur (Total)*	(S)	9.00
Germanium	(Ge)	7.00	Sulfur (Sulfate)	(S)	10.00
Gold	(Au)	7.00	Tantalum	(Ta)	7.00
Gold (Fire Assay)		8.50	Tellurium	(Te)	10.00
Gold plus Silver (Fire Assay)		12.00	Thallium	(Tl)	10.00
Indium	(In)	7.00	Thorium*	(Th)	7.00
Iron (Total)	(Fe)	7.00	Tin	(Sn)	7.00
Iron (Ferrous)*		10.00	Titanium	(Ti)	7.00
Lanthanum	(La)	7.00	Tungsten	(W)	7.00
Lithium	(Li)	7.00	Uranium	(U)	7.00
Lead	(Pb)	7.00	Vanadium	(V)	7.00
Loss on Ignition	(LOI)	2.00	Yttrium	(Y)	7.00
Magnesium	(Mg)	7.00	Zinc	(Zn)	7.00
Manganese	(Mn)	7.00	Zirconium*	(Zr)	7.00
Mercury*	(Hg)	7.00			

* Minimum 5 samples per batch

Other elements by Mass Spec. on request.

Multi-Element Assay Price

Arsenic, Antimony, Bismuth, Cadmium, Cobalt, Copper, Gold, Iron, Lead, Manganese, Molybdenum, Nickel, Silver, Thorium, Uranium, Zinc.

Price : First element $7.00 Each Additional $3.00 All 16 elements $22.00

Whole Rock Assay Prices

SiO2, Al2O3, Fe2O3, CaO, MgO, Na2O, K2O, MnO, TiO2, P2O5, Cr2O3, LOI.

Price : First oxide $7.00 Each Additional $3.50 All 12 $9.00

Volume Discounts Available.

Special Fire Assay Prices

Gold (1/2 A/T)	$ 8.50
Gold + Silver (1/2 A/T)	$12.00
Gold (1 A/T)	$10.00
Gold - native + 100 mesh	$ 6.00
Gold, Silver, Platinum, Palladium, Rhodium (1/2 A/T)	$22.00
Placer conc. for total precious metal or Gold + return of bead	$15.00

APPENDIX II

Soil Analysis Certificates

NORANDA VANCOUVER LABORATORY

Geochemical Analysis

Project Name & No.: MERRY WIDOW (GOOD SPORT) - 132 Geol.: D.B. Date rec'd: NOV. 15 LAB CODE: 9011-037

Material: 44 SOILS Sheet: 1 of 2 Date comp DEC. 10

Remarks: * Sample screened @ -35 MESH (0.5 mm).

¤ Organic, ▲ Humus

Au - 10.0 g sample digested with aqua-regia and determined by A.A. (D.L. 5 PPB)

ICP - 0.2 g sample digested with 3 ml HClO4/HNO3 (4:1) at 203 °C for 4 hours diluted to 11 ml with water. Leeman PS3000 ICP determined elemental contents.

N.B. The major oxide elements and Ba, Be, Ce, La, Li are rarely dissolved completely from geological materials with this acid dissolution method.

T.T. No.	SAMPLE No.	Au ppb	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Ce ppm	Co ppm	Cr ppm	Cu ppm	Fe %	K %	La ppm	Li ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P %	Pb ppm	Sr ppm	Ti %	V ppm	Zn ppm
31	10050W-30000N	8	0.6	2.37	11	26	0.7	2	4.91	1.0	44	8	52	18	2.65	0.05	9	22	0.92	1296	2	0.03	12	0.07	14	189	0.16	54	151
32	30025	5	0.2	0.18	6	9	0.2	2	1.12	0.3	21	1	5	14	0.23	0.03	3	2	0.06	31	1	0.02	2	0.04	5	59	0.01	6	31
33	30050	5	0.2	5.38	3	27	0.9	2	0.73	0.4	42	17	94	23	6.18	0.05	12	32	0.93	379	1	0.03	23	0.08	5	57	0.31	138	101
34	30075	5	0.4	3.99	11	44	0.7	2	1.87	0.7	44	30	92	25	5.09	0.10	11	28	0.97	3590	3	0.03	27	0.07	7	156	0.36	135	86
35	10050W-30100N	5	0.4	5.71	19	55	1.0	2	1.09	0.8	54	26	118	46	6.38	0.11	14	80	1.60	710	3	0.04	46	0.06	4	98	0.34	153	87
36	10100W-30000N ¤	5	0.2	0.23	4	10	0.2	2	1.98	0.3	22	2	7	26	0.50	0.03	3	2	0.10	198	1	0.02	3	0.04	6	240	0.03	10	43
37	30025	5	0.2	4.90	3	26	0.8	2	0.58	0.8	42	16	95	25	5.77	0.09	10	24	1.16	311	1	0.04	32	0.07	5	48	0.41	142	111
38	30050	5	0.4	4.30	3	54	0.9	2	2.12	0.9	51	17	70	37	4.77	0.11	14	29	1.47	3318	2	0.03	26	0.07	9	85	0.27	108	116
39	30100	5	0.6	5.09	11	40	0.7	2	1.20	0.9	37	26	77	45	6.22	0.09	9	62	1.41	448	2	0.03	54	0.05	3	97	0.40	150	86
40	10100W-30125N	5	0.6	5.88	3	20	0.6	2	0.28	0.4	28	20	101	40	6.74	0.06	7	25	0.71	200	2	0.03	40	0.06	4	31	0.42	174	64
41	10100W-30175N	5	0.4	6.62	2	30	0.7	2	0.50	0.4	39	27	87	112	6.54	0.13	10	19	1.38	549	1	0.03	70	0.07	2	66	0.44	160	68
42	10100W-30200N	5	0.6	6.68	2	32	0.7	2	0.57	0.4	39	27	80	121	6.26	0.15	9	18	1.45	607	1	0.03	72	0.07	2	68	0.42	150	69
43	10150W-30025N	5	0.6	5.25	19	97	1.2	2	1.37	1.0	50	24	75	43	5.79	0.09	18	62	1.33	3208	3	0.03	38	0.09	7	109	0.27	147	145
44	30075	5	0.4	5.41	7	39	0.9	2	0.51	0.5	50	19	126	38	6.43	0.09	14	41	1.05	483	2	0.04	31	0.06	3	49	0.41	163	78
45	10150W-30100N	5	0.4	5.29	3	29	0.6	2	0.34	0.5	31	19	107	44	6.95	0.10	9	24	0.69	356	1	0.03	37	0.07	2	37	0.49	201	67
46	10150W-30150N	5	0.6	7.63	4	33	0.6	2	0.34	0.3	36	29	87	82	6.37	0.10	9	23	1.23	469	1	0.03	76	0.08	2	40	0.37	152	69
47	30175	5	0.4	6.70	2	38	0.6	2	0.96	0.8	37	32	195	92	6.95	0.13	9	38	1.91	363	1	0.03	130	0.07	2	78	0.44	188	74
48	10150W-30200N	5	0.4	5.70	2	25	0.5	2	0.15	0.6	20	45	201	55	7.07	0.10	7	52	4.61	593	1	0.02	226	0.05	2	21	0.44	216	76
49	10200W-30050N	5	0.2	6.08	4	28	1.0	2	0.63	0.7	39	23	67	30	6.08	0.07	10	57	2.66	382	1	0.02	29	0.06	8	54	0.22	166	89
51	10200W-30075N	5	0.4	4.75	11	31	0.8	2	0.48	0.4	40	17	91	29	5.36	0.12	12	39	1.60	697	2	0.03	26	0.06	6	37	0.33	139	159
52	10200W-30100N	5	0.4	6.02	12	58	1.1	2	0.55	0.2	53	21	93	42	6.39	0.18	15	50	1.40	1124	3	0.03	48	0.08	2	46	0.38	154	78
53	30125	5	0.6	5.28	9	31	0.7	2	0.41	0.2	31	21	73	55	6.43	0.17	9	26	1.29	808	1	0.03	36	0.07	2	75	0.35	158	87
54	30150	5	0.4	6.02	27	42	0.7	2	0.51	0.2	36	32	60	88	6.70	0.08	9	52	1.71	549	2	0.04	74	0.06	2	92	0.37	119	69
55	10200W-30200N	5	0.4	5.90	7	36	0.9	2	0.76	0.2	45	29	82	71	5.96	0.15	10	29	1.59	898	2	0.03	66	0.07	2	61	0.30	126	69
56	10250W-30000N	5	0.6	5.89	7	36	0.8	2	1.15	0.3	38	20	41	32	4.97	0.09	11	48	3.43	1678	1	0.03	24	0.06	2	66	0.16	145	74
57	10250W-30025N ¤	5	0.2	0.30	7	7	0.2	2	3.01	0.3	19	2	8	13	0.33	0.03	4	4	0.08	273	1	0.02	4	0.03	8	79	0.02	9	32
58	30050	5	0.2	0.18	3	4	0.2	2	1.53	0.2	22	1	4	7	0.20	0.03	3	2	0.06	30	1	0.02	2	0.04	3	48	0.01	6	28
59	30075	5	0.4	4.69	8	60	0.8	2	1.19	0.3	46	24	74	61	5.27	0.12	12	26	1.47	662	1	0.04	55	0.06	5	58	0.36	129	80
60	30100	5	0.6	4.25	14	40	0.6	2	1.15	0.2	37	17	98	35	5.78	0.10	8	39	0.99	428	2	0.04	30	0.05	4	85	0.43	179	84
61	10250W-30125N	5	0.4	3.95	7	24	0.6	2	0.72	0.2	30	23	72	58	5.96	0.10	10	27	1.22	369	3	0.04	46	0.05	3	69	0.35	139	59

12 dec DB KK 81°

T.T. No.	SAMPLE No.	Au ppb	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Ce ppm	Co ppm	Cr ppm	Cu ppm	Fe %	K %	La ppm	Li ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P %	Pb ppm	Sr ppm	Ti %	V ppm	Zn ppm	9011-037 Pg. 2 of 2
62	10250W-30150N	5	0.6	5.56	16	50	0.9	2	1.22	0.2	50	27	93	79	6.27	0.15	15	53	1.80	782	2	0.04	61	0.06	2	110	0.37	147	65	
63	30175	5	0.4	1.59	16	14	0.6	2	16.90	0.9	2	13	31	47	2.20	0.11	1	8	1.25	397	3	0.05	27	0.04	17	444	0.19	71	32	
64	30200	5	0.4	4.86	2	22	0.5	2	1.16	0.4	34	16	90	56	6.56	0.08	9	17	0.95	357	1	0.04	44	0.07	2	79	0.49	179	57	
65	30225	5	0.2	6.55	2	41	0.6	3	0.57	0.2	30	37	119	141	5.84	0.11	8	34	2.71	369	1	0.03	177	0.05	2	68	0.42	156	64	
66	10250W-30250N	5	0.4	5.55	2	21	0.5	2	0.27	0.2	23	23	221	88	8.66	0.10	10	30	1.26	384	1	0.03	94	0.06	2	43	0.65	256	74	
67	10300W-30000N	5	0.4	3.69	18	41	0.9	2	5.23	0.8	28	13	49	31	4.12	0.13	9	39	1.14	6620	2	0.03	29	0.12	11	153	0.21	86	81	
68	30025	5	0.6	2.13	22	45	0.7	2	15.47	1.1	2	8	19	21	2.04	0.05	1	23	0.73	5445	3	0.02	13	0.09	22	532	0.07	51	60	
69	30050	5	0.6	0.64	23	29	0.5	2	18.33	1.3	2	5	10	17	0.96	0.04	1	9	0.22	2033	3	0.02	8	0.11	23	264	0.02	27	33	
70	30075 *¤	5	0.2	0.11	2	5	0.2	2	0.97	0.2	18	2	3	29	0.28	0.04	3	1	0.05	70	1	0.01	3	0.04	9	31	0.01	5	27	
71	10300W-30100N *	5	0.2	0.26	6	13	0.3	2	3.53	0.6	19	3	5	22	0.35	0.03	5	4	0.09	185	2	0.02	5	0.04	10	108	0.02	10	24	
72	10300W-30125N	5	0.4	4.81	11	24	0.8	2	0.56	0.4	33	18	75	35	5.94	0.10	9	31	1.42	736	2	0.03	33	0.07	8	42	0.33	141	76	
73	30150	5	0.4	6.98	2	32	0.8	3	0.58	0.3	49	30	84	99	6.20	0.10	10	20	1.59	436	1	0.03	72	0.07	3	64	0.43	151	68	
74	30175	5	0.4	6.67	3	33	0.8	2	0.58	0.5	37	32	94	90	7.05	0.12	10	27	2.40	676	1	0.03	90	0.07	6	79	0.45	184	74	
75	10300W-30200N	5	0.2	5.84	2	31	0.5	2	0.46	0.4	28	35	176	116	7.11	0.19	8	37	2.22	366	1	0.03	159	0.07	4	51	0.47	177	96	

APPENDIX III

AUTHORS QUALIFICATIONS

STATEMENT OF QUALIFICATIONS

****

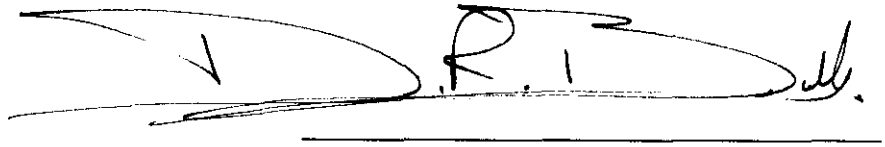
I, Dennis R. Bull of the Municipality of Surrey, Province of British Columbia, do hereby certify that:

1. I am a Geologist residing at 12918 - 64th. Avenue, Surrey, B.C.

2. I graduated from the University of Alberta in 1986 with a BSc (Honours) degree in Geology.

3. I have worked in Mineral Exploration since 1974 and have practised my profession as a Geologist since May, 1987.

4. I am presently employed as a Project Geologist with Noranda Exploration Company, Limited.



Dennis R. Bull

STATEMENT OF QUALIFICATIONS

****

I, Joan E. McCorquodale of the City of Vancouver, Province of British Columbia, do hereby certify that:

1. I am a geologist residing at 186 West 20th. Avenue, Vancouver, B.C.

2. I graduated from the University of Alberta in 1988 with a B.Sc. degree (specialization) in geology.

3. I have worked in mineralization exploration and government geology since 1985.

4. I have been employed as a geologist for Noranda Exploration Company, Limited (no personal liability) from May 1988 to the present.

Joan E. McCorquodale

APPENDIX IV

STATEMENT OF EXPENDITURES

FILE:GOODSPORT

TAYWIN - MERRY WIDOW
GOOD SPORT GROUP
STATEMENT OF EXPENDITURES

WAGES:

D.R. Bull - Project Geologist Base Line Installation, Geological Mapping November 7, 1990 1 day @ $200/day	$ 200.00
J.E. McQuodale - Party Chief Base Line Installation, Geological Mapping November 7, 1990 1 day @ $200/day	$ 200.00
S. Louden - Senior Fieldman Line Grid and Soil Sampling November 8, 9, 1990 2 days @ $125/day	$ 250.00
P. Zaro - Fieldman Line Grid and Soil Sampling November 8, 9, 1990 2 days @ $100/day	$ 200.00
D. Hickey - Fieldman Line Grid and Soil Sampling November 8, 9, 1990 2 days @ $100/day	$ 200,00
SAMPLE PREPARATION AND ANALYSIS:	
44 soil samples by I.C.P. & Au @ $12.50/sample	$ 550.00
TRUCK AND GAS:	
3 days @ $50/day	$ 150.00
MEALS AND ACCOMMODATION:	
Meals - 8 mandays @ $20/day	$ 160.00
Accommodation - 3 rooms for 3 days @ $40/room/day	$ 360.00
Report Preparation, Typing, Drafting	$ 500.00
TOTAL EXPENDITURES:	**$2,770.00**

FILE:GOODSPORT