

85-311-14266

GABRIEL RESOURCES INC.

GEOLOGY, GEOPHYSICS AND GEOCHEMISTRY

Report on the

YARDLEY LAKE PROPERTY

CARIBOO MINING DIVISION

N.T.S. 93G/7E, 8W

03/86

March 1985

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CLAIMS WORKED

FILMED

AREA	GROUP NAME	CLAIM NAMES
Yardley Lake	Mary	G SOUTH, G 3, G 4, and G 7
	Naver	G 6 and G 8
	Creek	G 12 and G 15
	Terry	G 11, G 13, G 14, G 16 and G 35
Government Creek	Buck Hix	G 37, G 42, G 43, G 44 and G 48 G 40 and G 41

Location: 53°22'N, 122°25'W

Owner: Gabriel Resources Inc.

Operator: Gabriel Resources Inc.

Consultant: A.G. Troup, P.Eng., Archean Engineering Ltd.

Project Geologist: J.C. Freeze, B.Sc., Mark Management Ltd.

Geologist: B.P. Butterworth, B.Sc., Mark Management Ltd.

GEOLOGICAL BRANCH
ASSESSMENT REPORT

14,266

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**YARDLEY LAKE PROPERTY
GEOLOGY, GEOPHYSICS AND GEOCHEMISTRY**

SUMMARY

The Yardley Lake property is comprised of several lode and placer gold prospects located approximately 40 km northeast of Quesnel, B.C. The property includes two blocks of mineral claims totalling 544 units.

In 1984 Gabriel Resources Inc. of Vancouver, B.C. carried out follow-up geological mapping, geochemistry, airborne and ground geophysics on the property.

In the Yardley Lake area geological mapping, silt, soil and lithogeochemical sampling, VLF and magnetic surveys were carried out. Copper and zinc anomalies in silts and soils were outlined coincident with ground and airborne VLF conductors.

In the Government Creek area, VLF and magnetic surveys and soil sampling was carried out. The Hixon Creek VLF grid was extended eastward. Additional north - south trending VLF conductors were outlined. Soil samples collected over these conductors contained only background copper, lead and zinc concentrations. A few north - south trending VLF conductors were also outlined on the Government Creek grid.

**YARDLEY LAKE PROPERTY
GEOLOGY, GEOPHYSICS AND GEOCHEMISTRY**

1. INTRODUCTION

This report covers the Yardley Lake and Government Creek claim blocks, located in central British Columbia. These claims cover several areas that have been gold prospects since the beginning of this century.

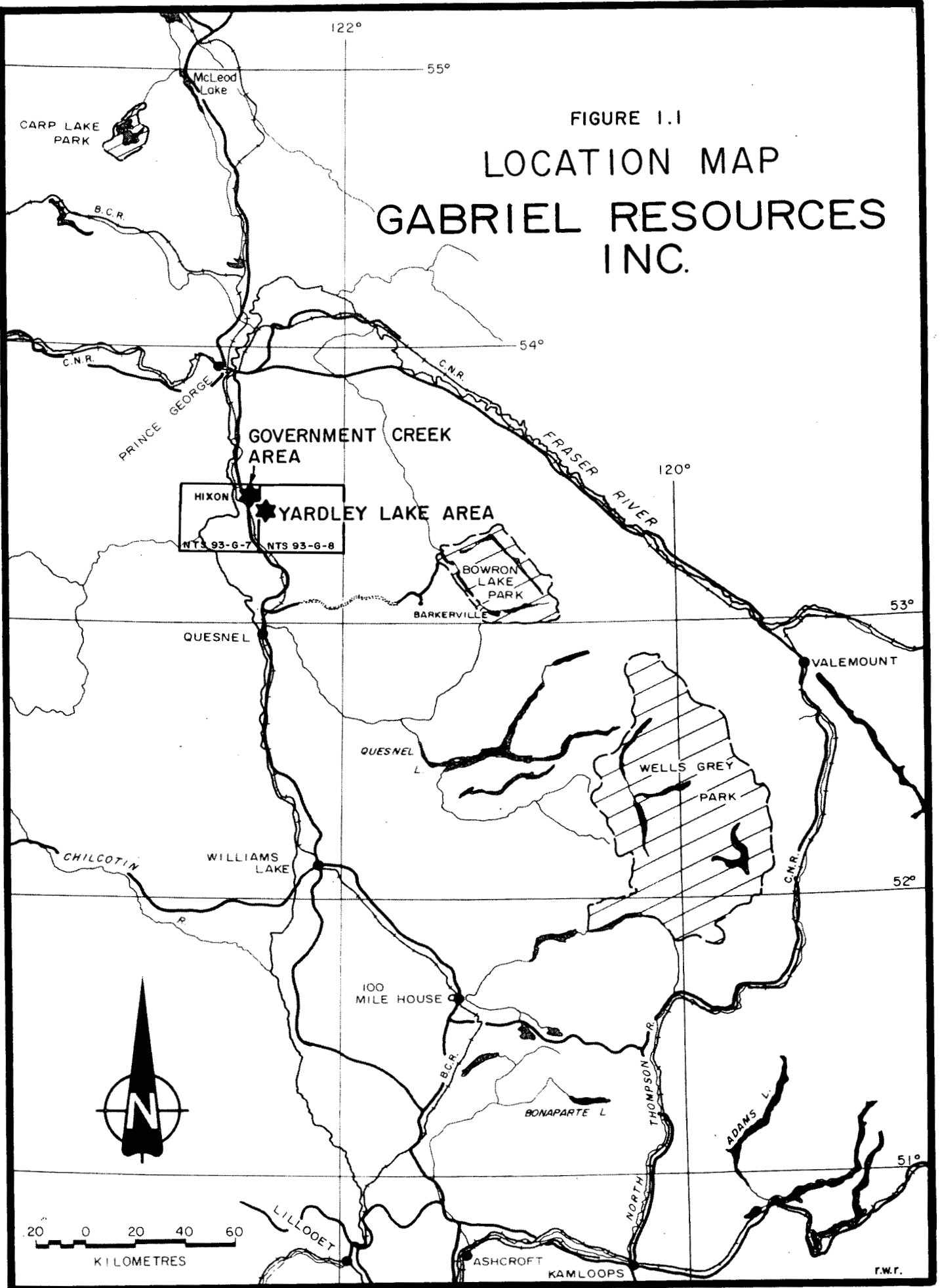
The purpose of the 1984 field programme was to follow up areas which were indicated as possible sources of gold by results of the 1981, 1982 and 1983 field programmes. Geological, geophysical and geochemical work was carried out over the property from July 8th to September 18th, 1984, by a crew of two to ten persons working out of Hixon, B.C. The programme was supervised by Mark Management project geologist, J.C. Freeze and geologist, Brian Butterworth under the direction of consulting geologist, A.G. Troup of Archean Engineering Ltd.

1.1 Location and Access

The Yardley Lake property is situated in the Cariboo Mining Division of central British Columbia. It begins 40 km north of Quesnel and extends northwards to 40 km south of Prince George, covering an area of 136 square kilometres.

The largest sector of the property, the Yardley Lake block, is 112.5 km² in extent. It is centred approximately 10 km southeast of Hixon, B.C. at 53°22'N and 122°25'W. Access to this area is by a network of logging and forestry roads.

FIGURE 1.1
LOCATION MAP
GABRIEL RESOURCES
INC.



The Government Creek block contains the northern most claims. This block is centred at 53°28'N, 122°32'W approximately 2 km northeast of Hixon, B.C. Access to this area is by the Hixon Creek Road and the Colebank East Road. The former intersects Highway 97 at the northern edge of the community and the latter intersects Highway 97 some 2 km north of Hixon.

1.2 Physiography

The Yardley Lake property is in a fairly moderate climatic zone. Average annual precipitation is 50 to 75 cm. Mean daily temperature in July is 14 to 18 degrees Celsius and in January is -15 to -10 degrees Celsius.

The topography of the property consists predominantly of gently-rolling hills and valleys. Steep canyons occur along Naver and Hixon Creeks. Elevations range from 455 m (1500 ft.) to 1220 m (4,000 ft.)

Vegetation over the area is predominantly heavy to moderate bush consisting of pine, spruce, tamarack and alder trees. Heavy undergrowth occurs where reforestation has replaced trees removed by logging or forest fires. Several large cleared areas occur where logging has been carried out without reforestation. Tall grasses and devil's club are found in several large swamps.

The major drainage systems on the property flow westward into the southward-flowing Fraser River. The Government Creek area is drained by Hixon and Government Creeks and several tributaries. The yardley Lake area is drained by Terry and Naver Creeks and several tributaries.

1.3 Claim Information

The Yardley Lake property is comprised of 31 modified grid claims, totalling 544 units. These are divided into 7 groups (Table 1.3.1, Map 1.3.1). In 1984 Gabriel Resources Inc. carried out field work over all of these claims.

TABLE 1.3.1

AREA	GROUP	CLAIM STATUS		RECORD NO.	EXPIRY
		CLAIM	UNITS		
Yardley Lake	Mary	G South	20	3196	12/3/86
		G 1	20	3195	12/3/86
		G 3	20	3210	13/3/86
		G 4	20	3211	13/3/86
		G 7	20	3214	16/3/86
	Naver	G 2	20	3209	13/3/86
		G 5	20	3212	16/3/87
		G 6	20	3213	16/3/86
		G 8	20	3215	16/3/87
		G 39	20	3853	23/7/86
	Creek	G 12	20	3219	16/3/86
		G 15	20	3222	16/3/86
		G 17	10	3224	16/3/86
		G 46	18	4020	23/9/86
	Quartz	G 9	20	3216	16/3/87
		G 10	20	3217	16/3/87
		G 36	14	3637	15/6/86
		G 38	20	3852	23/7/86
	Terry	G 11	20	3218	16/3/87
		G 13	20	3220	13/3/86
G 14		20	3221	16/3/86	
G 16		20	3223	13/3/86	
G 35		20	3636	15/3/86	
Government Creek	Buck	G 37	20	3798	29/6/86
		G 42	20	4081	19/8/86
		G 43	20	4082	19/8/86
		G 44	6	4083	24/8/86
		G 47	2	4021	23/8/87
		G 48	16	4022	23/8/86
	Hix	G 40	6	4079	19/8/87
		G 41	12	4081	19/8/87

1.4 History

Placer gold in the Government Creek area was discovered in the late 1800's and the area has been worked by private companies since then.

A reconnaissance heavy mineral concentrate sampling programme was carried out over the area by the A.T. Syndicate in 1980. Results of that survey lead to the staking of the present property.

In 1981, 1982 and 1983, Gabriel Resources Inc. worked the claims through an option agreement with the A.T. Syndicate. (See 1981, 1982 and 1983 Assessment Reports on the G South property for more details).

1.5 Work by Gabriel Resources Inc. in 1984

In 1984 field work by Gabriel Resources Inc. was conducted from July 8th to September 18th. During this period the following surveys were completed:

In the Yardley Lake area:

- 1) Geologic mapping (1:10,000 scale) and rock chip sampling was carried out over the Tom and Terry Creeks area.
- 2) Soil sampling was carried out over airborne VLF conductors on the Yardley Lake grid.
- 3) A magnetic survey was carried out over airborne VLF conductors on the Yardley Lake grid.
- 4) A VLF survey was conducted over Lori Creek on the G11 claim.
- 5) Soil sampling was carried out over the Lori Creek grid.

In the Government Creek area:

- 1) The Hixon Creek VLF grid on claims G40 and G41 was extended.
- 2) Soil sampling was carried out over VLF conductors on the Hixon Creek grid.
- 3) Two lines of VLF, magnetometer and soil sampling were carried out on Government Creek on claim G43.

2. GEOLOGY

2.1 General Geology

The geology of topographic sheet 93G was mapped by Amos Bowman of the Geological Survey of Canada in 1885-6, by H.W. Tipper, also of the G.S.C. in 1961 and was updated in 1974 on Geologic Sheet 93: Geology of the Parsnip River area; Fig.2.1.

The Yardley Lake property is underlain by the Early Cretaceous Naver Intrusives to the east, the flanking Upper Triassic black phyllites in the centre and the Upper Triassic - Lower Jurassic Takla Group to the west. The plateaus above the Cottonwood River are underlain by tertiary sandstone, slate, conglomerate, diatomite and lignite.

The Naver intrusives consist of quartz monzonite, syenite, monzonite, granodiorite, diorite and quartz-feldspar porphyry dykes. Pyroxenites and serpentinites are also found associated with the intrusives. Some of the intrusive bodies intrude the Takla Group of andesite, basalt, tuff, breccia, agglomerate and argillite. A chlorite or talc schist occurs as an alteration halo where these dykes and stocks intrude the andesite or basalt. (See 1981 Assessment Report on the G South property for details). (Maps 2.1.1 to 2.1.2).

2.2 Property Geology and Mineralization

In the centre of the Yardley Lake claim block the Takla andesite has been altered to a chlorite schist peripheral to a quartz feldspar porphyry and diorite dyke. Several quartz veins and a monzonite intrusive crosscut the andesite and argillites. Most of these have a strike parallel (northwest - southeast) to the dyke. Some of these veins are pyritic and give spotty gold values. (Maps 2.2.2 and 2.2.3).

In the Government Creek area pyritic quartz veins up to 45 cm wide cut the Takla andesite - chlorite schist and argillite-phyllite. Pyritic quartz veins up to 30 cm wide were found crosscutting a pyritic carbonatized intrusive. Soil samples taken over these veins contain up to 300 ppb Au. Quartz feldspar porphyry dykes containing disseminated pyrite also crosscut the Takla Group in this area. (Map 2.2.4).



TERTIARY

MPs sandstone, shale, conglomerate, diatomite, lignite

EARLY CRETACEOUS (in whole or in part)

Ekg NAVER INTRUSIONS: quartz monzonite, syenite, monzonite, granodiorite, diorite

eKgd granodiorite, quartz diorite, minor granite, syenite, gabbro, pyroxenite

UPPER TRIASSIC AND LOWER JURASSIC

TJt TAKLA GROUP: andesite, basalt, tuff, breccia, conglomerate, greywacke, shale, limestone

TJv andesite, basalt, tuff, breccia, minor sediments

TRIASSIC

uTd black phyllite, siltstone, limestone, quartzite

HADRYNIAN AND PALEOZOIC

Hk KAZA GROUP: sandstone, conglomerate, grit, phyllite, schist, amphibolite, marble, gneiss

after GSC MAP 1424A

Gabriel Resources Inc.

GOVERNMENT CK.; YARDLEY LK.
& AHBANU PROPERTIES
CARIBOO M.D.-B.C.
NTS 93-G-7 & 8

REGIONAL GEOLOGY

J.C.R. r.w.r.

FEB. 7/82

FIG. 2.1

3. GEOCHEMISTRY

3.1 Silt Sampling

3.1.1 Sampling

Silt samples were collected over the drainage area from Terry Creek south to Yardley Lake. A total of 87 silt samples were collected at 500 metre spacing along creeks.

3.1.2 Sample Preparation and Analytical Procedures

All silt samples were collected from the low velocity flow regime within creeks and were sent to Chemex Labs Ltd. in North Vancouver for analysis.

In the laboratory, samples were oven dried at approximately 60°C. The dried samples were sieved to minus 80 mesh and the coarse fraction was analysed for the elements copper, lead, zinc, arsenic, silver and gold by atomic absorption after digestion with hot concentrated nitric and hydrochloric acids.

3.1.3 Treatment and Presentation of Results

In assessing the silt geochemical results, graphical statistical methods were used to separate background from anomalous metal concentration. Threshold and anomalous levels were determined at the mean plus two standard deviations ($x+2s$) and the mean plus three standard deviations ($x+3s$), respectively, from log probability plots prepared for each element. This data is given in Table 3.1.

Sample locations and analytical results are shown on Maps 3.1.1. Results for all elements have been underlined at threshold ($x+2s$) and anomalous ($x+3s$) levels.

TABLE 3.1
MEAN, THRESHOLD AND ANOMALOUS
METAL VALUES IN 'B' HORIZON
SILT SAMPLES FROM THE YARDLEY LAKE PROPERTY

METAL	N	MEAN (x)	THRESHOLD (x+2s)	ANOMALOUS (x+3s)
Cu	87	22 ppm	36 ppm	46 ppm
Zn	87	68 ppm	109 ppm	140 ppm
Pb	87	2 ppm	5 ppm	9 ppm
As	87	0.1ppm	0.7ppm	1.1ppm
Ag	87	0.1ppm	0.8ppm	1.2ppm

3.1.4 Discussion of Results

A strong copper - zinc anomaly was discovered on Lori Creek, a tributary to Tom Creek. This area was then followed up with a VLF survey and soil sampling.

Anomalous gold values were found predominantly on Tom Creek.

3.2 LITHOGEOCHEMISTRY - ROCK CHIP SAMPLING

3.2.1 Sampling, Sample Preparation and Analytical Procedures

Rock chip samples were collected from all outcrops with visible mineralization, boxwork, iron staining or silicification, and from all quartz and calcite veins.

In most cases, grab samples were taken where outcrop exposures were poor. Chip samples were taken at regular intervals (according to the size of the unit) across the width of veins and wallrock to veins.

The samples were placed in numbered plastic bags and sent to Chemex Labs Ltd. in North Vancouver for analysis. In the laboratory, samples were put through primary and secondary jaw crushers and a tertiary cone crusher. A sub-sample of approximately 250 gm was then pulverized in a rotary pulverizer. Pulp for precious metal analysis was screened to minus 100 mesh and examined for 'metallics'. The pulp was then preconcentrated by fire assay and analysed by atomic absorption for copper, silver and gold.

3.2.2 Presentation and Discussion of Results

Rock geochem results, locations, and descriptions of samples are given in Table 3.2 and shown on Map 2.2.2.

Grab samples of pyritic greenstones, quartz-carbonate veins and shear zones in the Yardley Lake area contained few gold values above the detection limit.

TABLE 3.2
ROCK CHIP SAMPLES ASSAYS AND SAMPLE DESCRIPTIONS

ASSAYS	LOCATION	Cu Ppm	Ag Ppm	Al Ppb FA+AA	DESCRIPTION
3261	G 15	60	0.4	10	Pyritic Greenstone.
3262	"	39	1.0	20	Qtz-carb veins
3263	"	68	1.2	5	Pyritic chloritic shear zone
3264	"	108	0.5	5	Host G-stone to shear zone
3265	"	95	0.3	<5	Pyr Qtz-Ep vein in G-stone adj to shr
3266	"	49	0.6	5	Pyr shear zone
3267	"	158	0.6	10	Pyr Greenstone
3268	"	92	0.3	<5	Pyr sheared andesite
3270	"	70	0.2	<5	Ep veinlet in G-stone
3271	"	148	0.5	<5	Shear zone
3272	"	47	0.3	<5	Pyritic intrusive
3274	"	11	0.2	5	Qtz-carb vein in shear zone
3275	"	41	0.2	<5	Pyritic intrusive
3287	"	178	0.1	<5	Hb P And w/Cal vein
3288	"	90	0.1	<5	Silic Hb P And w/Cal veining
3289	"	105	0.3	5	Wacke-Qtz veins - Po + Py blebs *5%
3290	"	40	0.4	5	Silic Arg - Po veinlets *5%
3319	"	57	0.5	<5	Arg - Py *5% - Py + Cp in Qtz vein
3320	"	88	0.1	<5	Hb P And - Py + Po
3321	"	310	0.4	<5	Hornblendite - Py <5%
3322	"	115	0.2	<5	Diorite - dis Py <5%

*Approximately

3.3 Soil Sampling

3.3.1 Sampling

Yardley Lake Area

In the Yardley Lake area, soil sampling was carried out over airborne VLF conductors. A total of 260 samples were collected at 25 metre intervals along lines 120, 122, 124, 126, 134, 141, 145, 147, 161, 163N.

Soil samples were also collected over a grid on Lori Creek, claim G 11, where anomalous copper and zinc concentrations were found in silt samples. A total of 34 samples were collected at 25 metre intervals along two east - west lines spaced 400 metres apart and one north - south line.

Government Creek area

Soil samples were collected over the Hixon Creek grid on claim G 40. A total of 22 soil samples were collected at 25 metre stations over VLF conductors.

On the Government Creek G 43 grid, 18 soil samples were collected over VLF conductors.

3.3.2 Sample Preparation and Analytical Procedures

All soil samples were collected from the 'B' soil horizon with the aid of a lightweight mattock and were sent to Chemex Labs Ltd. in North Vancouver for analysis.

In the laboratory, samples were oven dried at approximately 60°C. The dried samples were sieved to minus 80 mesh and the coarse fraction was analysed for the elements copper, lead and zinc by atomic absorption after digestion with hot concentrated nitric and hydrochloric acids.

3.3.3 Treatment and Presentation of Results

In assessing the soil geochemical results, graphical statistical methods were used to separate background from anomalous metal concentration. Threshold and anomalous levels were determined at the mean plus two standard deviations ($x+2s$) and the mean plus three standard deviations ($x+3s$), respectively, from log probability plots prepared for each element. This data is given in Table 3.3.

Sample locations and analytical results are shown on Maps 3.3.1 to 3.3.5. Results for both elements have been contoured at threshold ($x+2s$) and anomalous ($x+3s$) levels.

TABLE 3.3

MEAN, THRESHOLD AND ANOMALOUS
METAL VALUES IN 'B' HORIZON
SOIL SAMPLES FROM THE YARDLEY LAKE PROPERTY

METAL	N	MEAN (\bar{x})	THRESHOLD ($x+2s$)	ANOMALOUS ($x+3s$)
Cu	707	19 ppm	40 ppm	60 ppm
Pb	333	5 ppm	9 ppm	11 ppm
Zn	707	67 ppm	138 ppm	187 ppm

3.3.4 Discussion of Results

Yardley Lake Area

On the Yardley Lake grid several copper - zinc anomalies were outlined. Several of these anomalies are coincident with airborne VLF conductors and magnetic anomalies. (Maps 3.3.1 to 3.3.2).

The Lori Creek G 11 grid outlined a zinc - copper anomaly at the north end of the grid and a copper - zinc anomaly at the south end. Anomalous copper, lead and zinc values were also obtained from two hand trenches.

Government Creek Area

There were no anomalous copper, lead or zinc values found over the Hixon Creek G 40 grid.

In the Government Creek area only one anomalous copper value was obtained.

4. GEOPHYSICS

4.1 VLF-EM Survey

4.1.1 Instrument and Survey Techniques

A Geonics EM-16 unit was used to carry out VLF surveys on several grids. On all grids, the 24.8kHz Seattle, Washington submarine transmitting station was used. In-phase quadrature readings were taken in a westerly direction (260°) to insure that east dips would be indicated as negative readings by the instrument. The in-phase dip angle readings were later converted by means of the Fraser filtering techniques (Fraser, 1969) to data which could be contoured. Readings were taken at 25 m intervals along 100 m or 200 m spaced east-west lines.

One line was run for 1.4 kilometres along an east - west stretch of the main road just north of Terry Creek.

A survey was carried out over Lori Creek on claim G 11 where anomalous copper and zinc concentrations were discovered in silt samples. A total of 1.4 kilometres were covered on 3 east - west lines spaced 200 metres apart.

The Hixon Creek grid was extended to the east. A total of 4.8 kilometres were covered on 6 east - west lines spaced 200 metres apart.

Two east - west lines were run on Government Creek claim G 43. A total of 2.25 kilometres were covered.

4.1.2 Presentation and Discussion of Results

The results of the VLF surveys are shown on Maps 4.1.1 to 4.1.4. These maps give the in-phase dip angle and filtered dip angle results (Fraser, 1969) with the filtered data contoured at a 10% contour interval.

Results of the VLF line run along the Terry Creek road only revealed one conductor with Fraser filtered values greater than 20.

The Lori Creek grid outlined three north-south VLF conductors with Fraser filtered values up to 51. Copper and zinc anomalies were found in 'B' horizon soils over these conductors. (Map 4.1.2).

The Government Creek grid outlined several north-south trending conductors. 'B' horizon soil samples did not reveal any anomalous copper, lead or zinc values over these conductors. (map 4.1.4.).

The eastern extension of the Hixon Creek grid showed several north-south trending conductors paralleling the conductors outlined to the west on G 41. The strongest conductor, which had Fraser filtered values up to 62, was soil sampled but showed only background copper, lead and zinc concentrations. (Map 4.1.3).

4.2 Fluxgate Magnetometer Survey

4.2.1. Instrument and Survey Techniques

Fluxgate magnetometer surveys were conducted over the main Yardley Lake grid and the Government Creek grid. A total of 12 line kilometres were covered by the survey over the Yardley Lake area but due to equipment difficulties unrecognized by the field crew 10 kilometres of data were unusable. A total of 2.25 line kilometres were run over the Government Creek grid.

A Scintrex MF-2 fluxgate magnetometer was used for both surveys. A base station was established and readings were taken at 30 minute intervals with a Scintrex MF-1 fluxgate magnetometer. Base station magnetometer readings taken in the morning and throughout the day were used to correct for day-to-day and diurnal variations. In the field, readings were taken at 25 metre intervals along northwest-southeast survey lines spaced 50 metres apart. At each station, readings were taken in a northerly direction including an established tie-in point which was checked for day to day variations. The time of day was recorded with all readings.

4.2.2. Presentation and Discussion of Results

Magnetometer readings are in gammas and have been corrected for daily variations. Results of the survey are shown on Map 4.2.1.

The purpose of the magnetometer survey was to outline local areas of increased magnetic susceptibility. Results of the Yardley Lake survey show a peak of up to 375 gammas on line 161N at 205 + 25E. On the Government Creek G 43 grid values did not show a change of more than 155 gammas.

5. CONCLUSIONS

The results of the 1984 programme may be summarized as follows:

1. 'B' horizon soil sampling outlined copper-zinc anomalies coincident with airborne EM conductors identified as potential massive sulphide bodies in the vicinity of Yardley Lake.
2. Anomalous copper and zinc concentrations were found with coincident VLF conductors near Lori Creek on claim G 11.
3. Additional north-south trending VLF conductors have been outlined on the Hixon Creek grid.
4. Three north-south trending VLF conductors have been outlined in the Government Creek area.

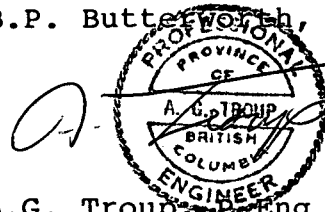
Respectfully Submitted,

J.C. Freeze

J.C. Freeze, B.Sc.

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A.G. Troup, P.Eng.

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December 1982 and Geophysics.

COST STATEMENT
G and G SOUTH CLAIMS
GEOLOGY, GEOPHYSICS, and GEOCHEMISTRY
3 May - 31 October 1984

GENERAL COSTS

<u>FOOD AND ACCOMMODATION</u>		
14 Pers., 3May-9Oct, 655 man days @ \$18.83		\$12,338.43
<u>REPAIRS & MAINTENANCE</u>		1,005.53
<u>SUPPLIES</u>		6,061.28
<u>SHIPPING AND POSTAGE</u>		717.20
<u>RENTAL EQUIPMENT</u>		
U-Haul Trailer, 3May-31Oct, 159 days	\$ 329.60	
Mark Mgmt 4WD Bronco		
3May-9Oct, 114 days @ \$43	4,902.00	
Airways 4WD Blazer, 3May-9Oct, 39days @ \$35	1,365.00	
Airways 4WD Blazer, 28May-9Oct, 78days @ \$35	2,730.00	
Tilden GMC PU, 8-10Jul, 3days @ \$91.92	275.76	
Gabriel SBX-11A, 159 days @ \$11	1,749.00	
Gabriel Field Equipment, 655 Man days @ \$6	<u>3,930.00</u>	15,281.36
<u>FIXED WING</u>		
Hastings Travel, CP Air, 9Jun, Vcr-Qsl		118.25
<u>GREYHOUND</u>		38.80
<u>FUEL</u>		2,715.11
<u>PROJECT PREPARATION</u>		4,004.06
<u>PROJECT DEMOBILIZATION</u>		3,465.09
<u>CONSULTANT</u>		
Archean Engineering		2,223.00
<u>REPORT PREPARATION</u>		<u>6,699.37</u>
<u>TOTAL GENERAL COSTS</u>		\$51,437.39 =====

GEOLOGY COSTSSALARIES AND WAGES

13 Pers., 147 Man days @ \$116.50	\$17,125.50
-----------------------------------	-------------

BENEFITS @ 20%

	3,425.10
--	----------

GENERAL COSTS APPORTIONED

147/545 Man days X \$51,437.39	<u>13,873.94</u>
--------------------------------	------------------

TOTAL GEOLOGY COSTS

	\$34,424.54
	=====

AIRBORNE SURVEYCONTRACTOR

Questor Surveys Limited	\$81,611.07
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	=====
--	-------

GEOPHYSICS COSTSSALARIES AND WAGES

13 Pers., 227 Man days @ \$73.33	\$16,645.98
----------------------------------	-------------

BENEFITS @ 20%

	3,329.20
--	----------

RENTAL EQUIPMENT

Geonics EM16, 4Jun-25Jul, 52days @ \$27	\$ 1,404.00	
Gabriel EM16, 92 days @ \$27	2,484.00	
Goliath MF1, 27 days @ \$8	216.00	
Gallant MF2, 27 days @ \$24	648.00	
Shipping	<u>38.15</u>	4,790.15

GENERAL COSTS APPORTIONED

227/545 Man days X \$51,437.39	<u>21,424.38</u>
--------------------------------	------------------

TOTAL GEOPHYSICS COSTS

	\$46,218.84
	=====

GEOCHEMISTRY COSTSSALARIES AND WAGES

13 Pers., 171 Man days @ \$79.07	\$13,521.48
----------------------------------	-------------

BENEFITS @ 20%

	2,704.30
--	----------

GEOCHEMICAL ASSAYS and ANALYSES CHEMEX LABS

Supplies	\$ 160.00	
58 Rocks for Cu,Pb,Zn,Ag,Au @ \$14.70	852.60	
21 Rocks for Cu,AG,Au @ \$12.90	270.90	
87 Soils for Cu,Pb,Zn,Ag,AS @ \$8.65	752.55	
276 Soils for Cu,Zn,Au @ \$11.15	3,077.40	
683 Soils for Cu,Pb,Zn @ \$4.50	3,073.50	
66 HMS for Au @ \$19.00	<u>1,254.00</u>	9,440.95

GENERAL COSTS APPORTIONED

171/545 Man days X \$51,437.39	<u>16,139.07</u>
--------------------------------	------------------

TOTAL GEOCHEMISTRY COSTS

	<u>\$41,805.80</u>
	=====

STATEMENT OF QUALIFICATIONS

J.C. FREEZE (nee RIDLEY), B.SC.

Academic

1978	B.A. Geography	University of Western Ontario
1981	B.Sc. Geology	University of British Columbia

Practical

1981 - Present	Mark Management Ltd. Vancouver, B.C.	Project Geologist. Involved with geological, geochemical and geophysical aspects of precious metals exploration in B.C.
1980 - 1981	Utah Mines Vancouver, B.C.	Temporary Summer and part-time Winter Geologist in Charge of mapping and diamond drilling of a coal property in N.E. B.C. logging of rotary drilling chip samples on another coal property in N.E. B.C.
1979	Utah Mines Vancouver, B.C.	Temporary Summer. Reconnaissance and detailed mapping, logging of diamond drill core on coal properties in N.E. B.C.

STATEMENT OF QUALIFICATIONS

A. TROUP, P.ENG.

ACADEMIC

1967	B.Sc. Geology	McMaster University, Ontario
1969	M.Sc. Geochemistry	McMaster University, Ontario

PRACTICAL

1981 -	3605 Creery Avenue West Vancouver, B.C.	Consulting Geologist with Archean Engineering Ltd.
1977 - 1980	Geological Survey of Malaysia	Project Manager on a CIDA supported mineral explora- tion survey over peninsular Malaysia.
1969 - 1977	Rio Tinto Canadian Exploration Ltd. Vancouver, B.C.	Geologist involved in all aspects of mineral explora- tion in B.C., the Yukon and N.W.T.
1968	McMaster University Dept. of Geology Hamilton, Ontario	M.Sc. thesis work. Reconnaissance mapping and geochemical study, Lake Shubenicadia area, Nova Scotia.
1967 (summer)	Canex Aerial Exploration Ltd. Toronto, Ontario	Geologist in charge of detailed mapping and reconnaissance geochemical program in Gaspé, Quebec
1966 (summer)	McMaster University Dept. of Geology Hamilton, Ontario	Detailed and reconnaissance mapping in Northern Ontario.
1965 (summer)	International Nickel Co. of Canada Thompson, Manitoba	Detailed mapping in the Thompson area, Manitoba.
1964 (summer)	Geological Survey of Canada Ottawa, Ontario	Regional geochemical survey in the Keno Hill area, Yukon.

STATEMENT OF QUALIFICATIONS

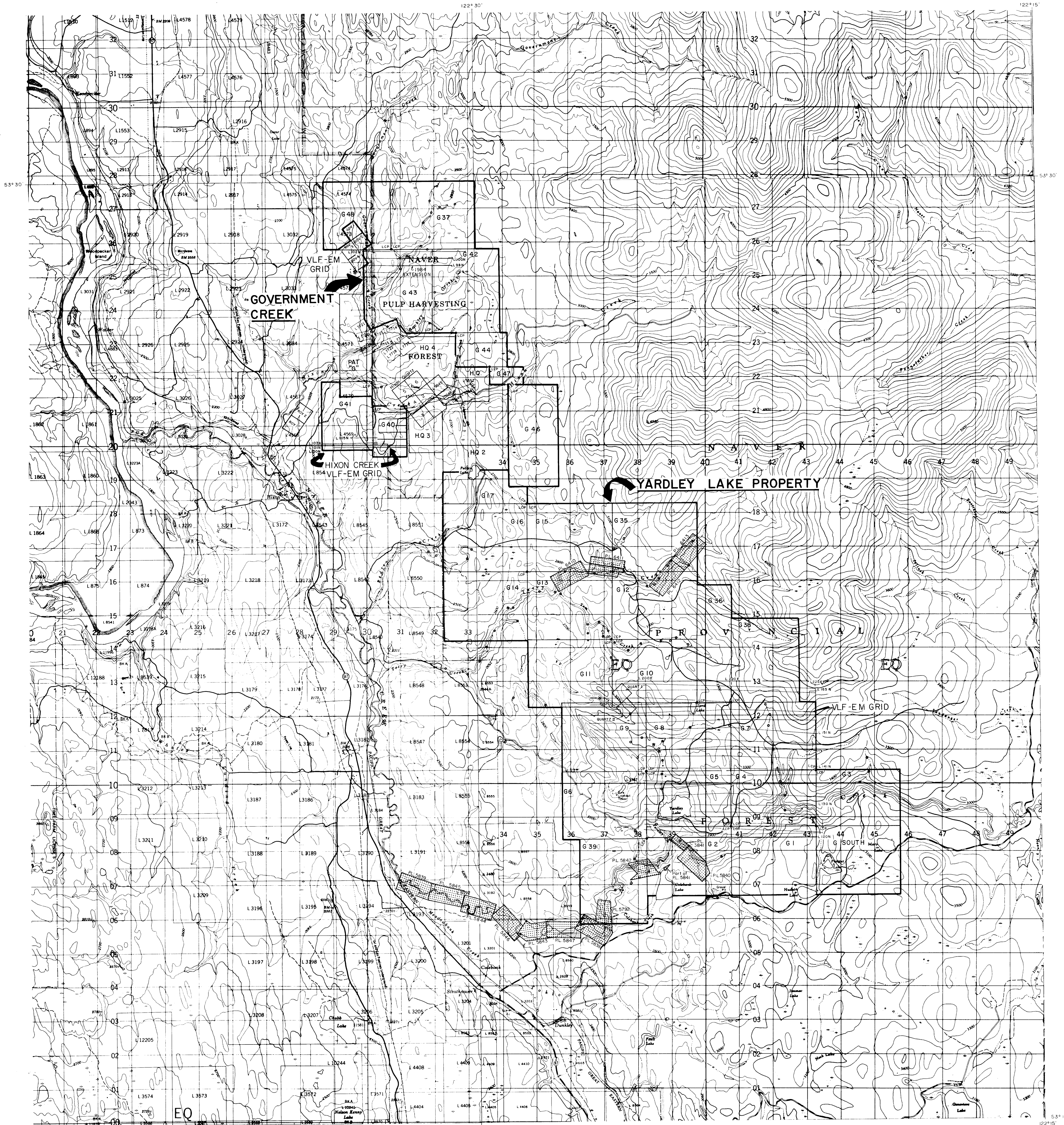
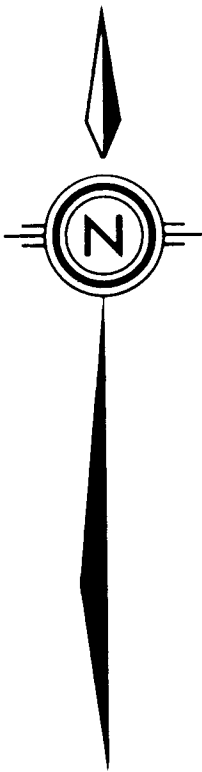
BRIAN P. BUTTERWORTH

ACADEMIC

1983	B.Sc. Geology	University of B.C.
------	---------------	--------------------

PRACTICAL

1983 -	Mark Management Vancouver, B.C.	Geologist involved in all aspects of precious metals exploration in B.C.
1982 (Summer)	Riocanex Vancouver, B.C.	Property work in Central B.C. which included detailed outcrop and trench mapping, core description and geochemical surveys.
1981 (Summer)	Riocanex Vancouver, B.C.	Regional geochemical survey, prospecting and property work throughout Central B.C. and Southern Yukon.
1980 (Summer)	Riocanex Vancouver, B.C.	Geochemical survey and and geologic mapping on properties in Central and Southeastern Yukon.



**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

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LEGEND

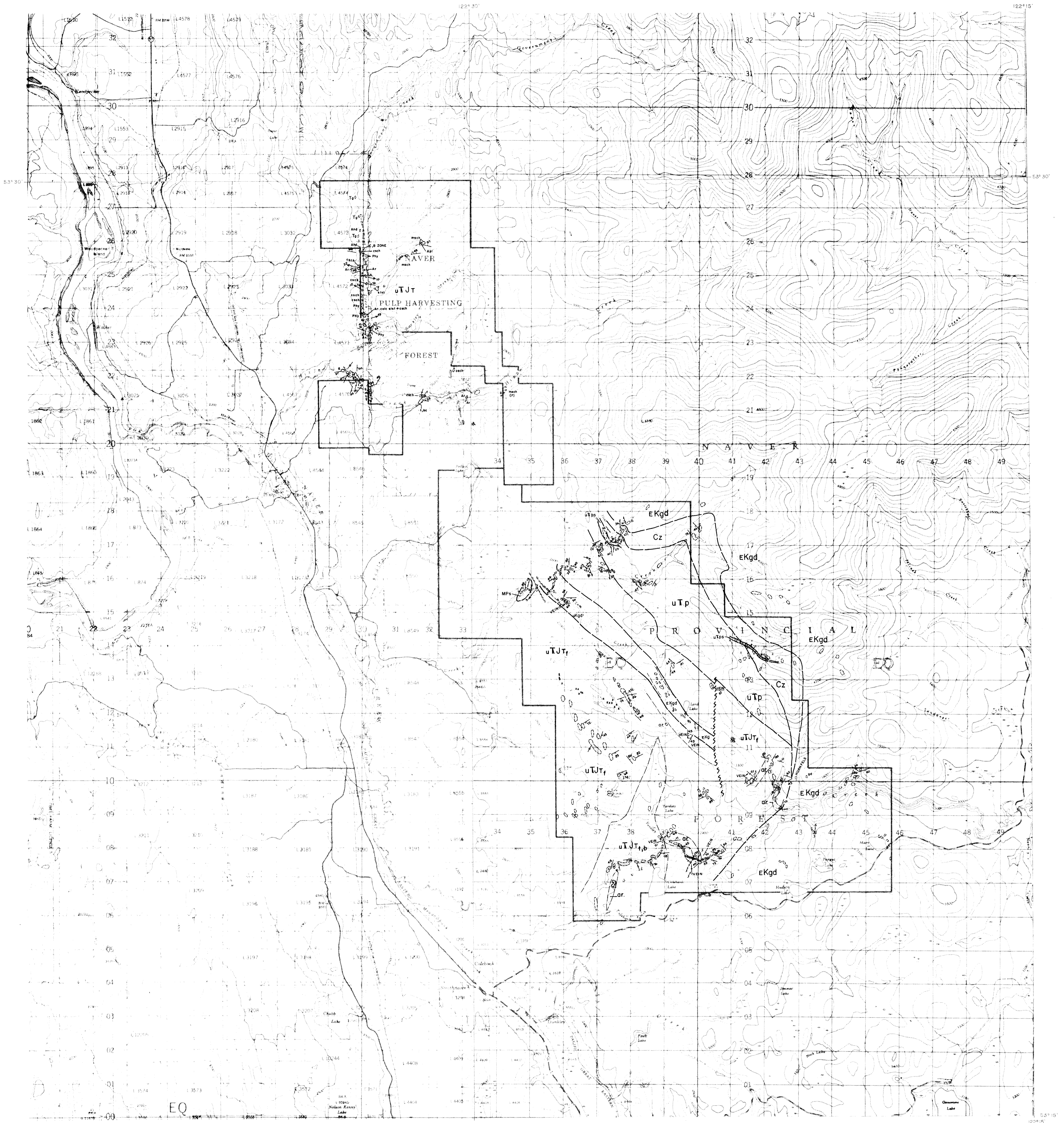
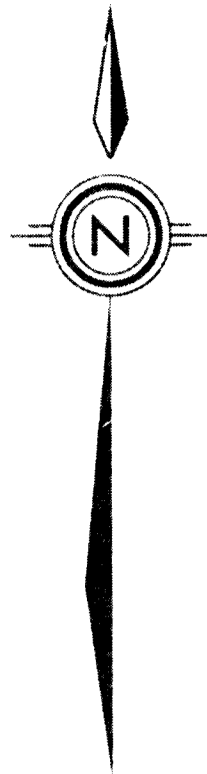


GABRIEL RESOURCES INC.
GOVERNMENT CK. & YARDLEY LK. PROPERTIES
G SOUTH & G CLAIMS - CARIBOO MD. - B.C.

CLAIM MAP

0 1 2 3 4
KM
1:50,000

DATE Feb-1983 APR, 1985
NTS 93-G-788 JCR/rwr MA: 1.3.1



**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

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ROCK TYPES	
f, t, bc	ANDESITE-FLOW, TUFF, BRECCIA
ar	ARGILLITE
ch	CHERTS (mostly bedded)
c	CONGLOMERATES
gd, m	GRANODIORITE, MONZONITE
g, opl	GRANITE, APLITE
um	PYROXINITE - SERPENTINITE
qtz	QUARTZ (veins and pods)
csch, msch, tsch	SCHIST - CHLORITE, MICA, TALC
silt, msdt	SILTSTONE - MUDSTONE
ps	PLEISTOCENE SEDIMENTS
gs	GRANITIZED SEDIMENTS
cb	CARBONATIZED
Tg	TERTIARY GRAVEL
Phy	PHYLLITE

LEGEND

TERTIARY	
MPs	SANDSTONE, SHALE, CONGLOMERATE, DIATOMITE, LIGNITE
EARLY CRETACEOUS - Naver Intrusions	
Ekgd	QTZ MONZONITE, GRANODIORITE, QTZ DIORITE, MINOR GRANITE, SYENITE, GABBRO, PYROXENITE
Cz	CONTACT METAMORPHIC ZONE - MICA SCHIST, GRANITIZED SEDIMENTS
UPPER TRIASSIC - LOWER JURASSIC	
uTJf	Tuklo Group - ANDESITE, (b) BASALT, (f) FLOW (f) TUFF, (b) BRECCIA, (c) CONGLOMERATE, GREYWACKE, (a) ARGILLITE, LIMESTONE
UPPER TRIASSIC	
uTp	BLACK PHYLLITE, SILTSTONE, LIMESTONE, QUARTZITE, SERPENTINIZED PERIDOTITE & SERPENTINITE (uTps)

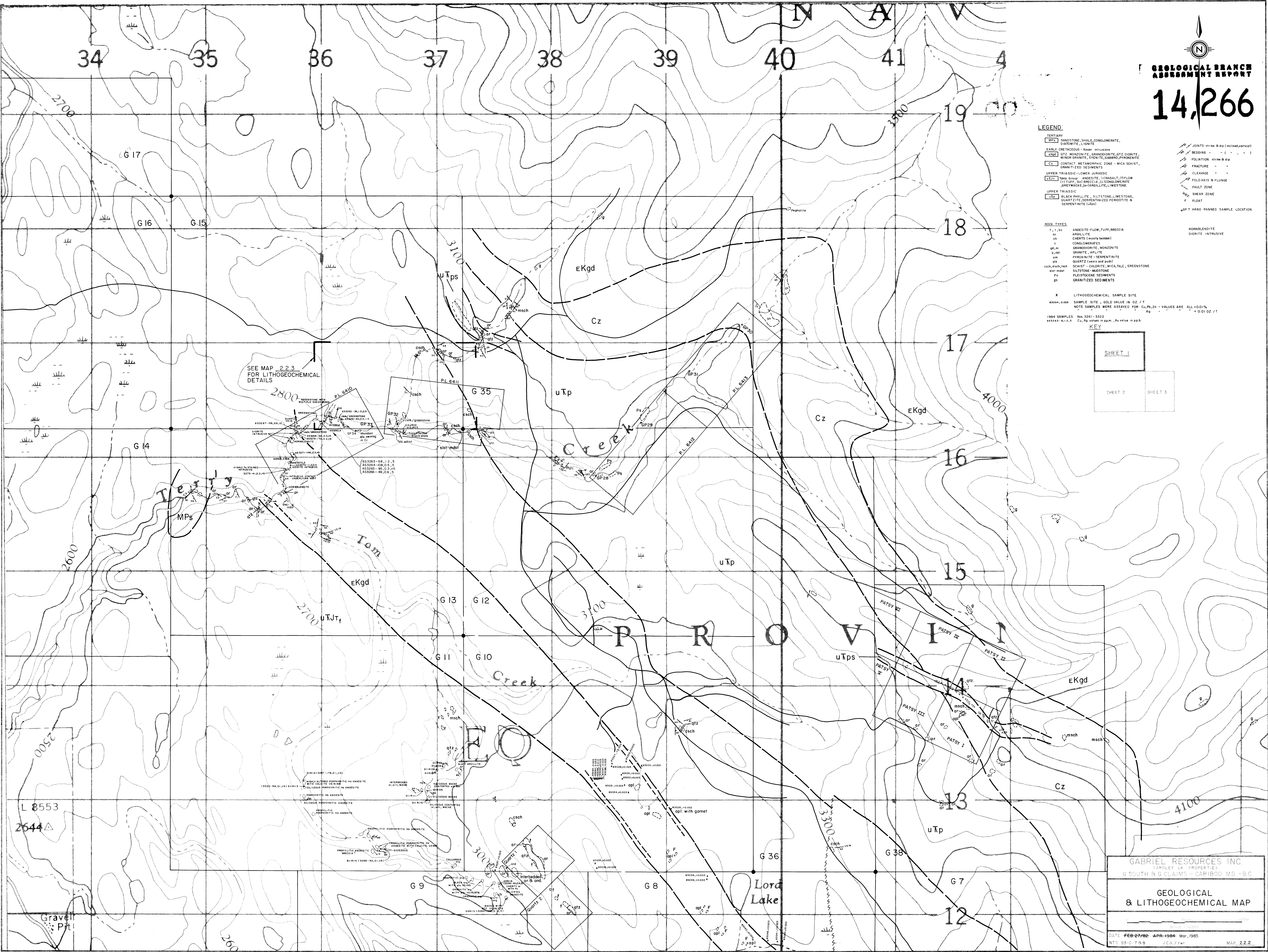
	JOINTS strike & dip (inclined, vertical)
	BEDDING " " " " " "
	FOLIATION strike & dip
	FRACTURE " " " " " "
	CLEAVAGE " " " " " "
	FOLD AXIS & PLUNGE
	FAULT ZONE
	SHEAR ZONE
	FLOAT
	OUTCROP

GABRIEL RESOURCES INC.
GOVERNMENT CK. & YARDLEY LK. PROPERTIES
G SOUTH & G CLAIMS - CARIBOO M.D. - B.C.

REGIONAL GEOLOGICAL MAP

1:50,000

DATE FEB-7-82 APR-1984 MAR, 1985
NTS 93-G-7 & 8 J.C.R./rwr MAP 2.1.2



LEGEND:

TEXTURE

- MPs SANDSTONE, SHALE, CONGLOMERATE, GYPSUM, LIGNITE
- EARLY CRETACEOUS - lower Mithunian
- EQZ MONZONITE, GRANODIORITE, QTZ, DIORITE, MINOR GRANITE, SYENITE, GABBRO, PYROXENITE
- Cz CONTACT METAMORPHIC ZONE - MICA SCHIST, GRANITIZED SEDIMENTS
- UPPER TRIASSIC-LOWER JURASSIC
- uTp AND. AND. AND. (1) TUFF, (2) BRECCIA, (3) CONGLOMERATE, (4) SANDSTONE, (5) SHALE, (6) LIGNITE
- UPPER TRIASSIC
- uTps BLACK PHYLITE, SILTSTONE, Limestone, QUARTZITE, SERPENTINIZED PERidotITE & SERPENTINITE (uTps)

ROCK TYPES

- f, s, dc ANDESITE-FLOW, TUFF, BRECCIA
- ar ARGILLITE
- ch CHERTS (mostly bedded)
- co CONGLOMERATES
- gp,m GRANODIORITE, MONZONITE
- g, q GRANITE, Gabbro
- am PYROXENITE - SERPENTINITE
- qtz QUARTZ (veins and veins)
- sch, sch, sch SCHIST - chlorite, mica, talc, greenstone
- slst, msch SILTSTONE - MUDSTONE
- ps PLASTER
- gs GRANITIZED SEDIMENTS

STRUCTURE

- J JOINTS strike & dip (inclined, vertical)
- B BEDDING strike & dip
- F FOLIATION strike & dip
- C CLEAVAGE
- PA FOLD AXIS & PLUNGE
- FZ FRUIT ZONE
- SZ SHEAR ZONE
- F FOLD

OTHER

- X LITHOGEOCHEMICAL SAMPLE SITE
- 83094, 0.009 SAMPLE SITE, GOLD VALUE IN OZ./T
- NOTE SAMPLES WERE ASSAYED FOR Cu, Pb, Zn - VALUES ARE ALL <0.01% Au - <0.01 OZ./T
- 1984 SAMPLES Nos 3261-3322
- ASSAYED: Au, Ag, Cu, Pb, Zn, Au value in ppb

KEY

SHEET 1

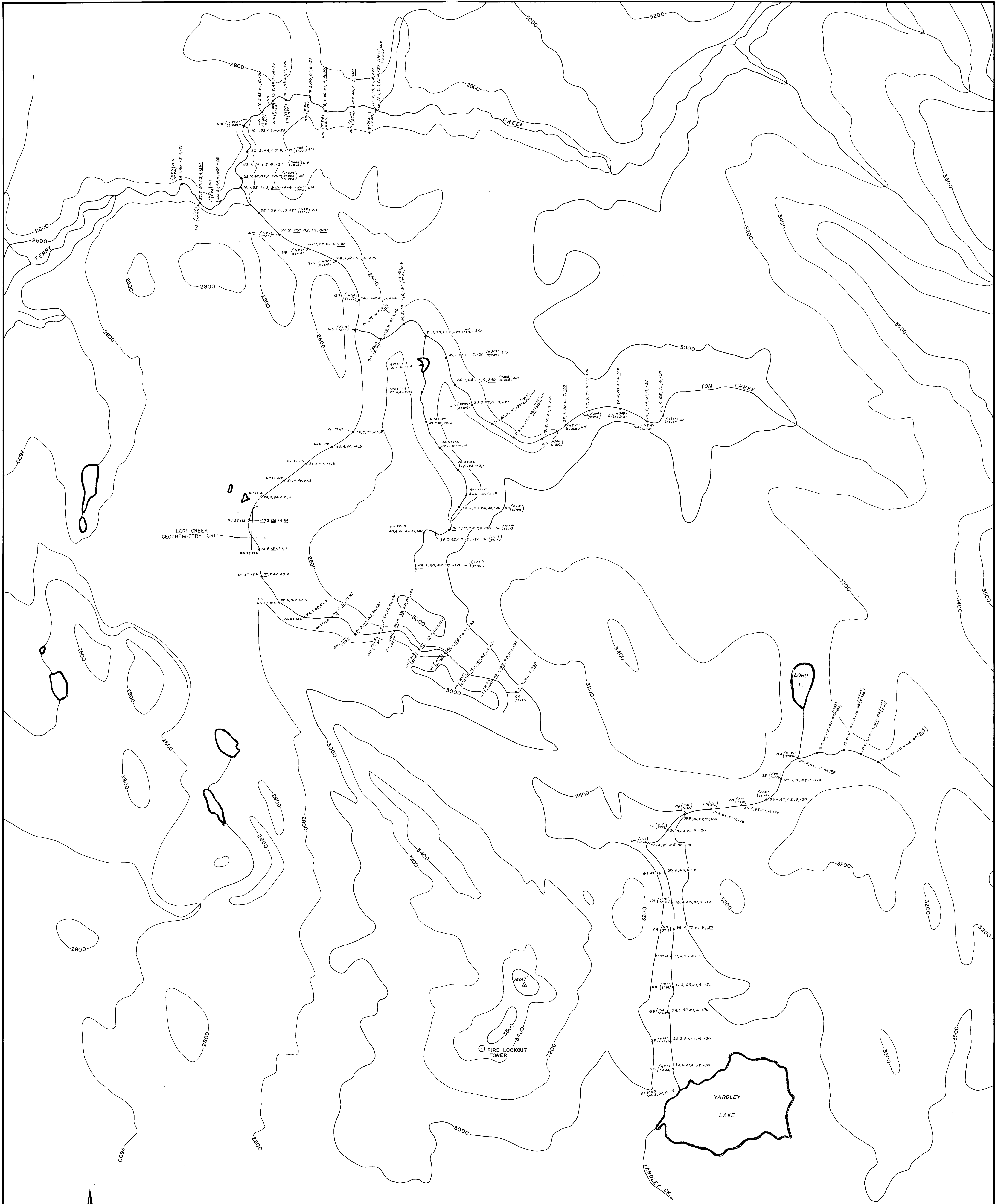
SHEET 2

SHEET 3

GABRIEL RESOURCES INC.
 TARDLEY LK. PROPERTIES
 G SOUTH & G CLAIMS - CARIBOO MD - B.C.

GEOLOGICAL & LITHOGEOCHEMICAL MAP

 DATE FEB 27/90 - APR 1984 Mar 1985
 NTS 93-G-7-8 JCR/rwr MAP 2.2.2



STATISTICS

	1+2S	1+3S
COPPER	36	46
LEAD	5	9
ZINC	109	140
ARSENIC	0.7	1.1
SILVER	0.8	1.2
GOLD	20	100

LEGEND

STREAM SEDIMENT SAMPLE LOCATION
 G1/G2/G3 24,544,01,10,20 Cu, Pb, Zn, As, Ag, Au

GEOLOGICAL BRANCH
ASSESSMENT REPORT

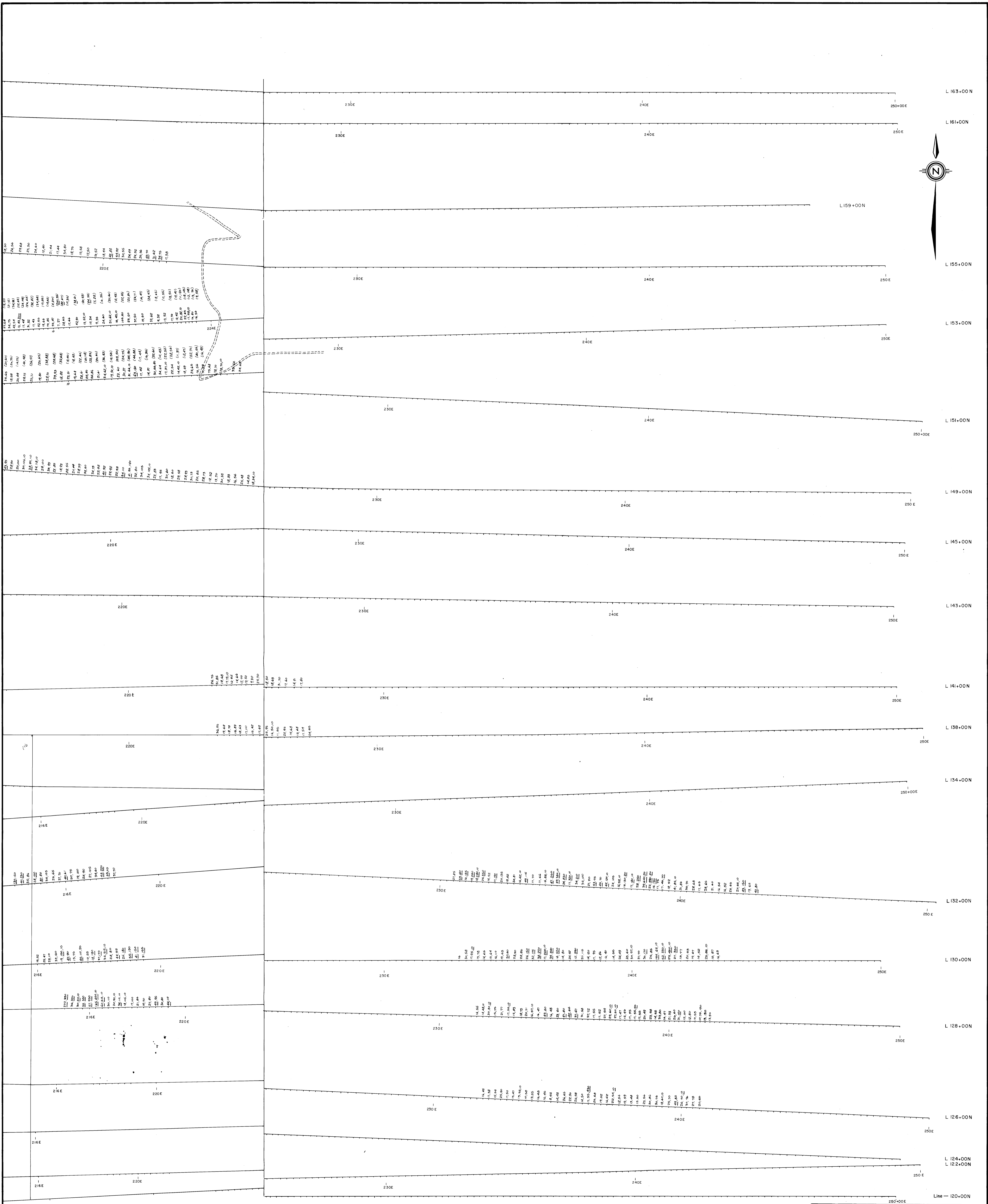
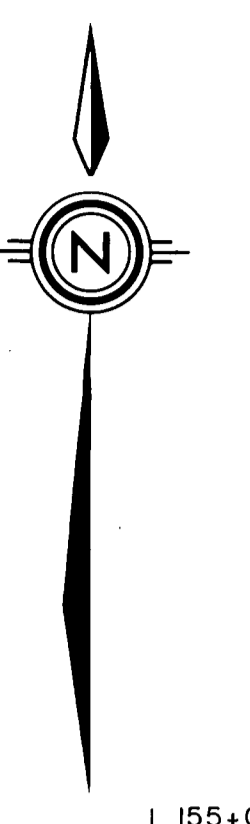
14,266

GABRIEL RESOURCES INC.
YARDLEY LK. PROPERTIES
G SOUTH & G CLAIMS - CARIBOO M.D. - B.C.

STREAM SEDIMENT
SAMPLE SURVEY

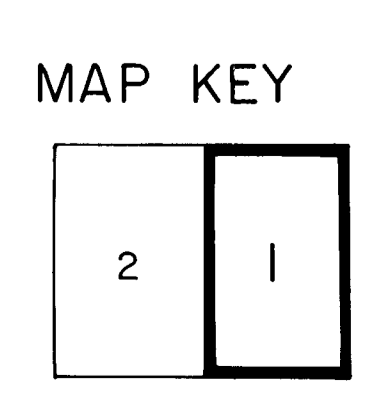
0 500 1000 m
SCALE 1:10,000

DATE: MAR, 1985
NTS 93-G-7&8 J.C.F./r.w.r. MAP 3.11



**GEOLOGICAL BRANCH
ASSESSMENT REPORT**
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LEGEND:
• 1983 GOLD SAMPLE SITE
(VALUES > 10 PPB NOT PLOTTED)
• COPPER, ZINC RE-ANALYZED



GABRIEL RESOURCES INC.
6 SOUTH & 6 CLAIMS - CARIBOO M.D. - B.C.

SOIL GEOCHEMICAL SURVEY
YARDLEY LAKE GRID
Cu & Zn RESULTS in p.p.m.
GOLD RESULTS in p.p.b.

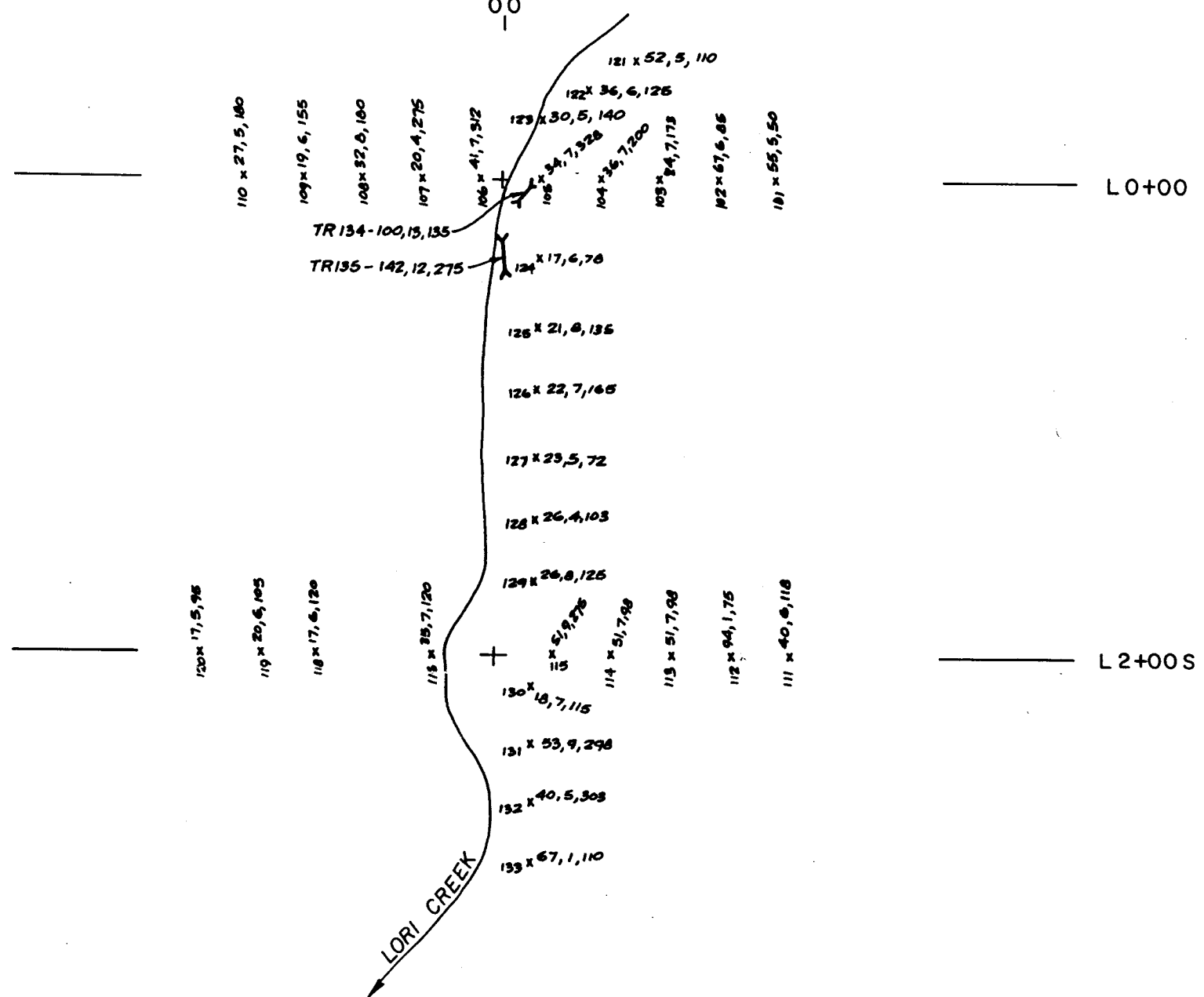
0 100 200 300 400 500
1:5,000 Metres

DATE MARCH 1985
NTS 93-6-8W

FIGURE 3-3-2



VLF-EM GRID
00
1



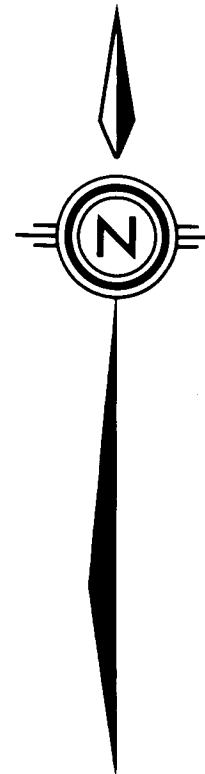
LEGEND:

- 121 x 52, 5, 110 Cu, Pb, Zn Results in p.p.m
- Sample No
- TRENCH

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

14,266

GABRIEL RESOURCES INC. YARDLEY LAKE PROPERTY, LORI CR.	
SOIL GEOCHEMICAL SURVEY	
Cu, Pb, Zn RESULTS	
0 50 100 Metres (1:2500)	
DATE: Apr., 1985	NTS. 93-G-8
BY: J.C.F /r.w.r.	MAP No. 3.3.3



G 41 M.C.

G 40 M.C.

LCP

8 W

4 W

00

L4+00 N

L2+00 N

L0+00

L2+00 S

L4+00 S

L6+00 S

29, 6, 60
17, 4, 53
20, 5, 68

19, 4, 50
11, 4, 44
12, 5, 63
9, 5, 42
18, 4, 42
13, 3, 44
23, 5, 45

14, 5, 55
13, 4, 72
17, 4, 39
15, 3, 55
13, 4, 52
14, 4, 50
16, 4, 45
12, 4, 72

22, 4, 65
40, 6, 55

8 W

4 W

00

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

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LEGEND

52, 5, 40 Cu, Pb, Zn Results in ppm

GABRIEL RESOURCES INC.

HIXON CREEK GRID
CARIBOO M.D. G-41 M.C.

GEOCHEMICAL SURVEY
Cu, Pb, Zn RESULTS

0 100 200 300 1:5000

DATE: Mar., 1985

BY: JCF/r.w.r.

MAP No. 3.3.4



120+00 E

125+00 E

130+00 E

L 100 N

22, 5, 50
27, 6, 58
12, 5, 38
14, 4, 38
16, 4, 44
24, 5, 63
13, 4, 47
11, 5, 52

17, 5, 38
13, 4, 43
19, 5, 40
18, 4, 38

12, 5, 55
10, 5, 48
10, 5, 43
13, 5, 58
20, - , 78
68, 8, 130

L 98 N

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

14,266

LEGEND

52, 5, 40

Cu, Pb, Zn Results in p.p.m.

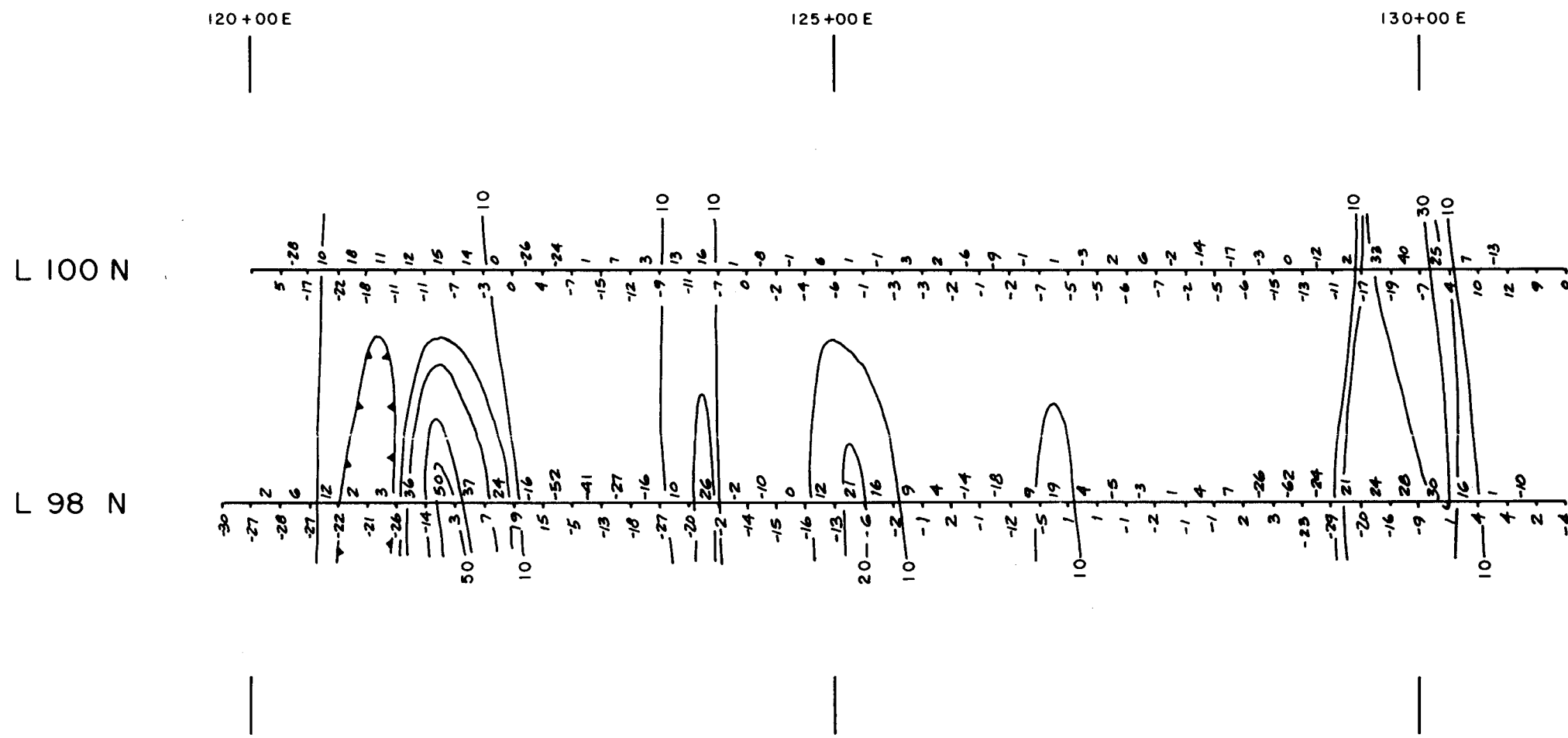
GABRIEL RESOURCES INC.
GOVERNMENT CREEK GRID , G- 43 MC.

GEOCHEMICAL SURVEY
Cu, Pb, Zn RESULTS

0 100 200 300 m
(1: 5,000)

DATE: Mar., 1985
BY: J.C.F. r.w.r.

NTS. 93-G-8
MAP No. 33.5



**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

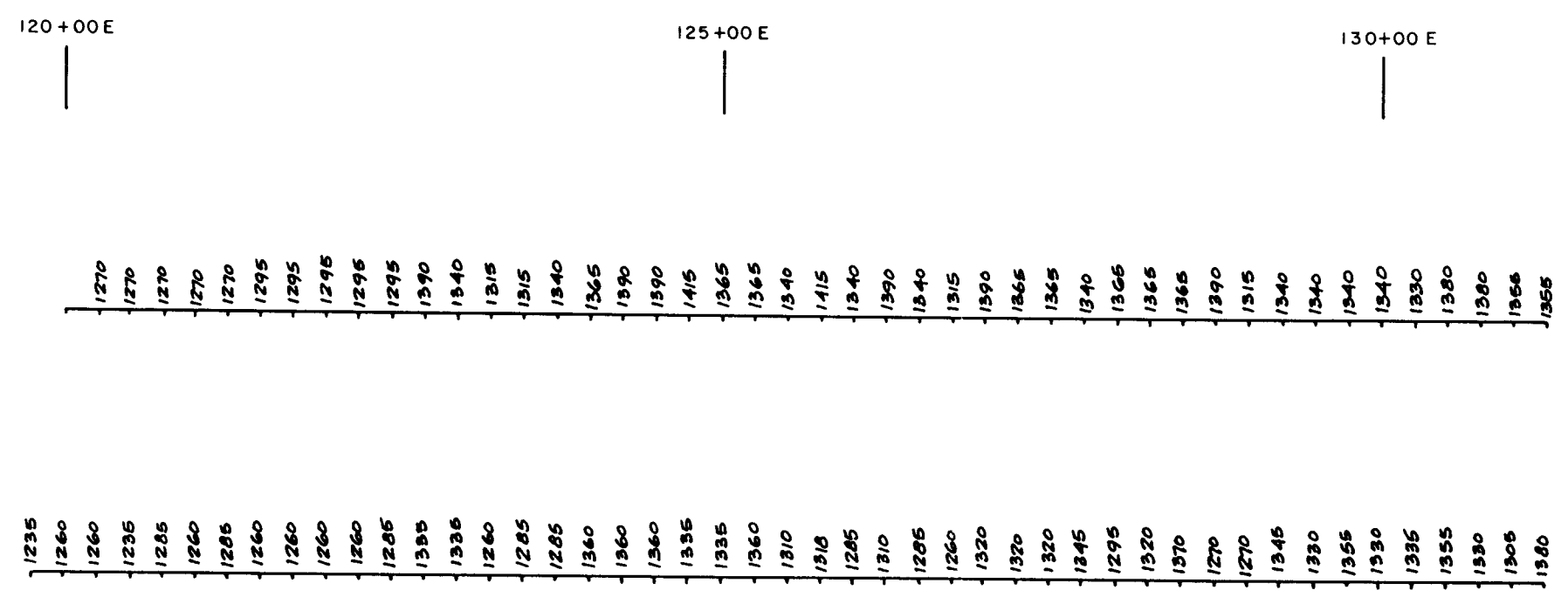
14,266

LEGEND

FRASER FILTER RESULT (%)
IN-PHASE READING

INSTRUMENT: GEONICS EM-16
CONTOUR INTERVAL = 10 %

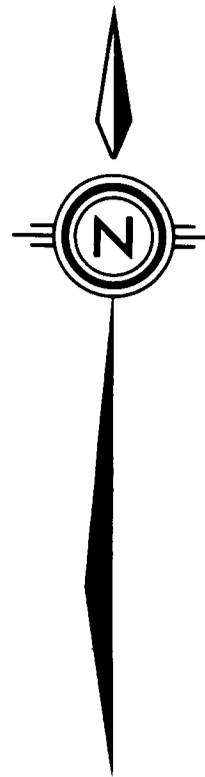
GABRIEL RESOURCES INC. GOVERNMENT CREEK GRID , G- 43 MC.	
VLF-EM SURVEY	
0 100 200 300 m (1:5,000)	
DATE: Mar., 1985	NTS. 93-G-8
BY: J.C.F. r.w.r.	MAP N ^o . 4.1.4



**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

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GABRIEL RESOURCES INC. GOVERNMENT CREEK GRID , G- 43 MC.	
MAGNETOMETER SURVEY (VALUES IN GAMMAS)	
0 100 200 300 m (1: 5,000)	
DATE: Mar., 1985	NTS. 93-G-8
BY: J.C.F. r.w.r.	MAP No. 4.2.2

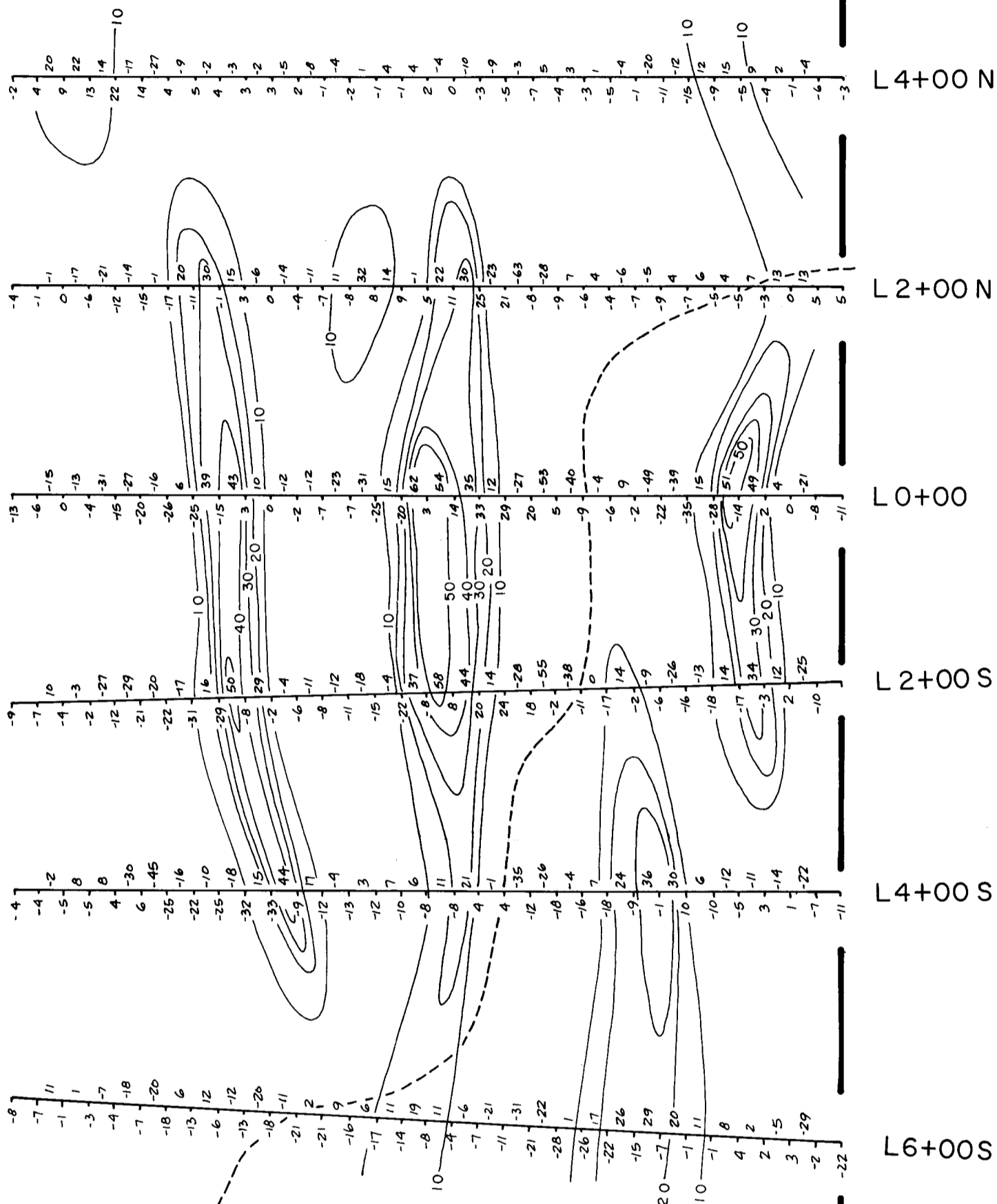


8W 4W 00

G 41 M.C.

G 40 M.C.

LCP



8W 4W 00

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

14,266

LEGEND

FRASER FILTER RESULT (%)
 IN-PHASE READING

INSTRUMENT: GEONICS EM-16
CONTOUR INTERVAL = 10 %

GABRIEL RESOURCES INC.

HIXON CREEK GRID
CARIBOO M.D. G-41 M.C.

VLF-EM SURVEY

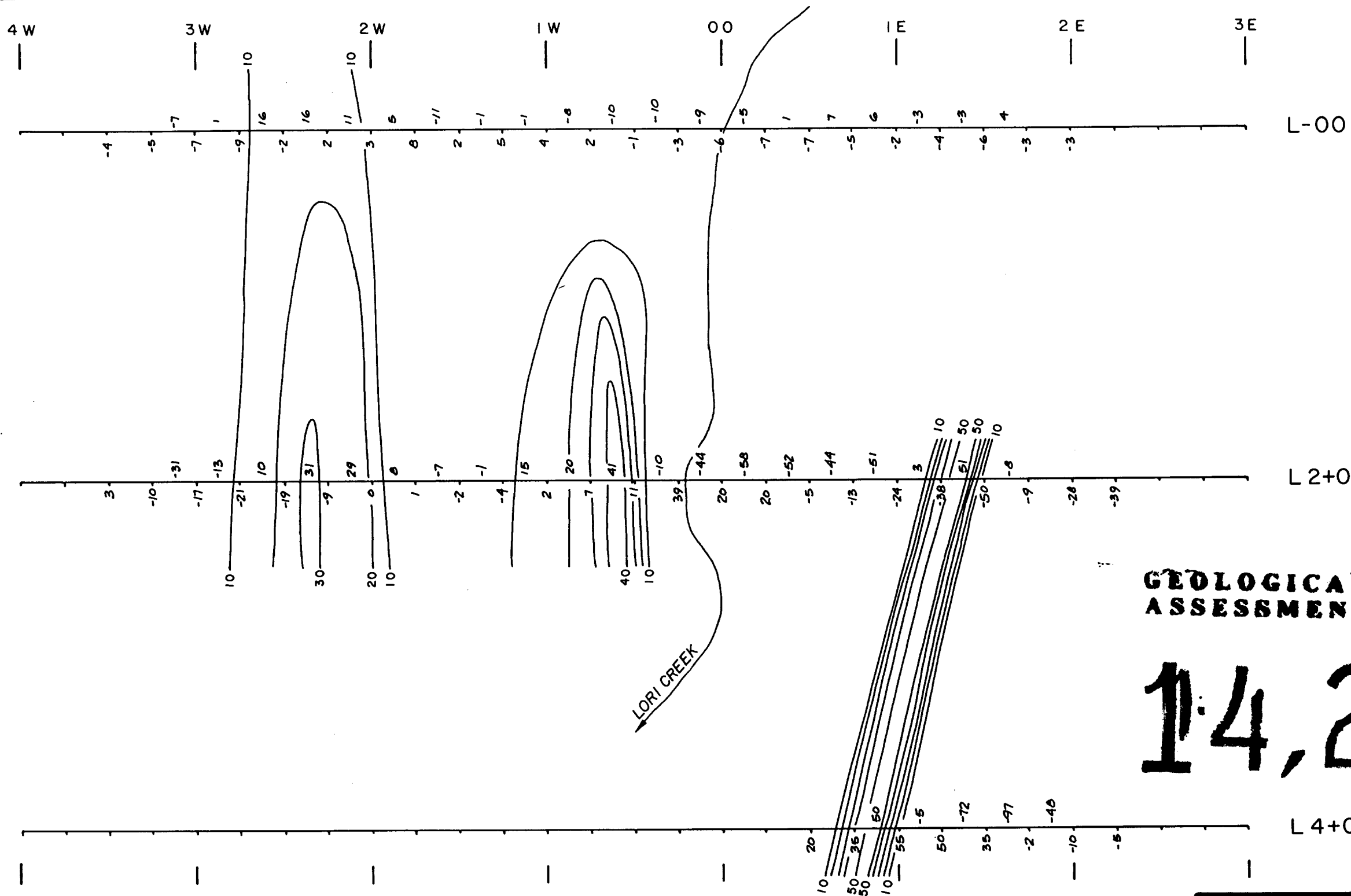
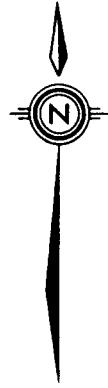


1:5000

DATE: Mar., 1985

BY: J.C.F./r.w.r.

MAP No 4.1.3



**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

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LEGEND

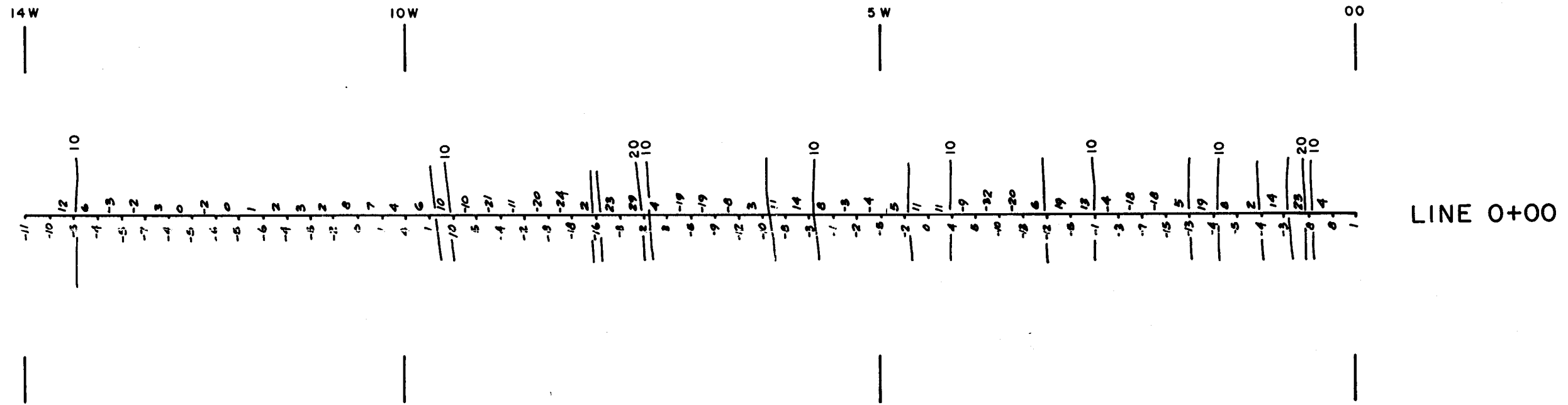
FRASER FILTER RESULT (%)
IN-PHASE READING

INSTRUMENT: GEONICS EM-16
CONTOUR INTERVAL = 10 %

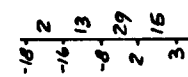
GABRIEL RESOURCES INC. YARDLEY LAKE PROPERTY, LORI CR.	
VLF-EM SURVEY	
0 50 100 m (1:2,500)	
DATE: Mar., 1985	NTS. 93-G-8
BY: J.C.F./r.w.r.	MAP No. 4.1.2

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

14,266



LEGEND:



FRASER FILTER RESULT (%)

IN-PHASE READING

INSTRUMENT : GEONICS EM-16

CONTOUR INTERVAL = 10 %

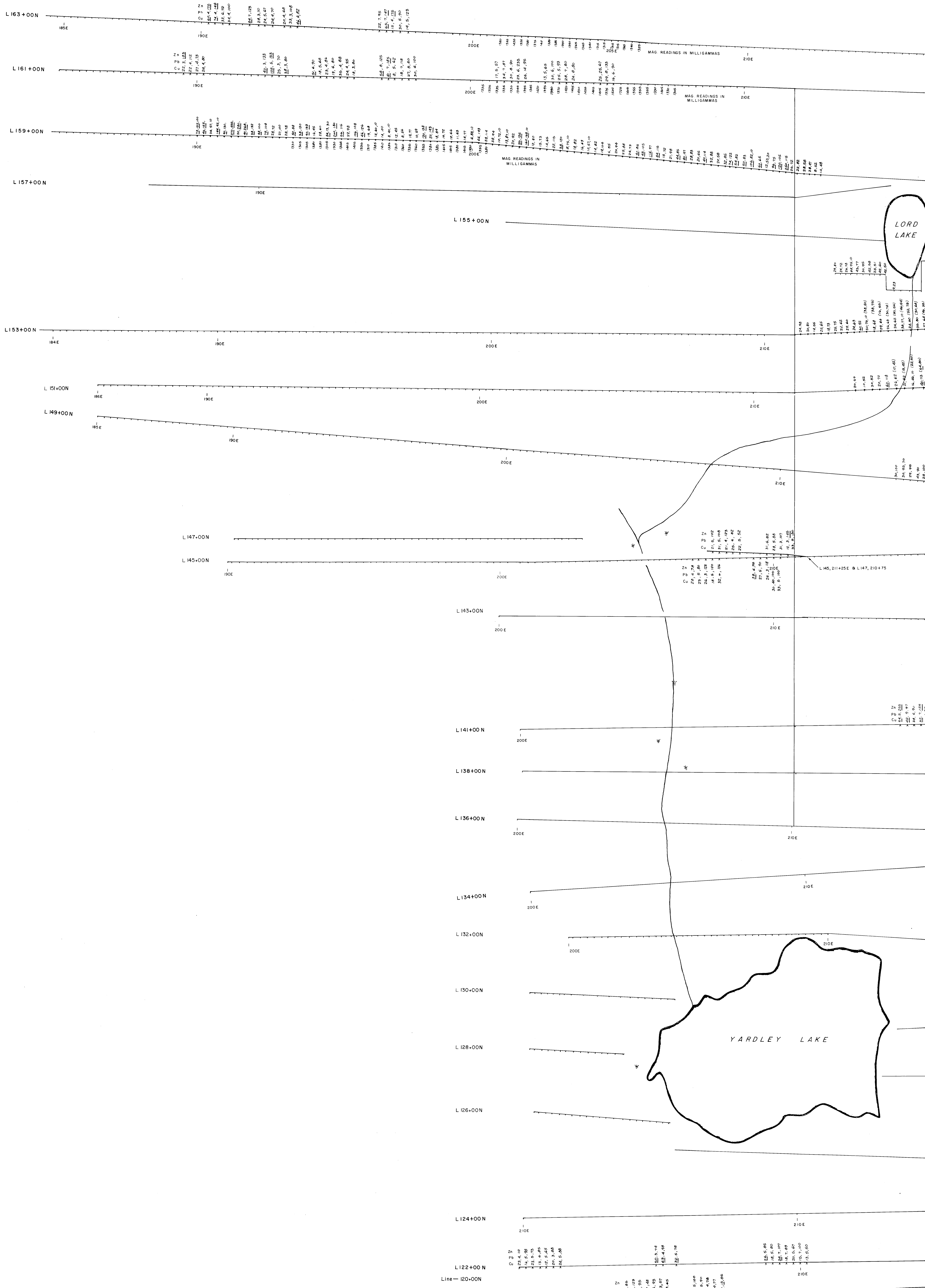
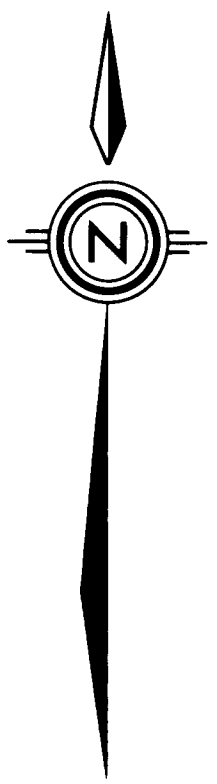
GABRIEL RESOURCES INC.
YARDLEY LAKE PROPERTY , G- 15 M.C.

VLF-EM SURVEY
ALONG TERRY CR. ROAD



DATE: Mar., 1985
BY: J.C.F. / r.w.r.

NTS. 93-G-8
MAP No. 4.1.1

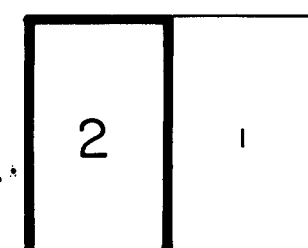


**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

14,266

- LEGEND:**
- 1984 G-19 COPPER, ZINC, GOLD VALUES
 - 1983 GOLD SAMPLE SITE (VALUES > 10 ppb NOT PLOTTED)
 - 1984 G-19 COPPER, ZINC ANALYZED
 - 1984 G-19 COPPER, LEAD, ZINC VALUES

MAP KEY



GABRIEL RESOURCES INC.
6 SOUTH & 6 CLAIMS - CARIBOO M.D. - B.C.

SOIL GEOCHEMICAL SURVEY
YARDLEY LAKE GRID
Cu, Pb, Zn RESULTS in p.p.b.
GOLD RESULTS in p.p.b.

0 100 200 300 400 500
1:5,000 Metres

DATE MARCH 1985
NTS 93-G-BW

3-3-1
MAP 4-2-1