

1037

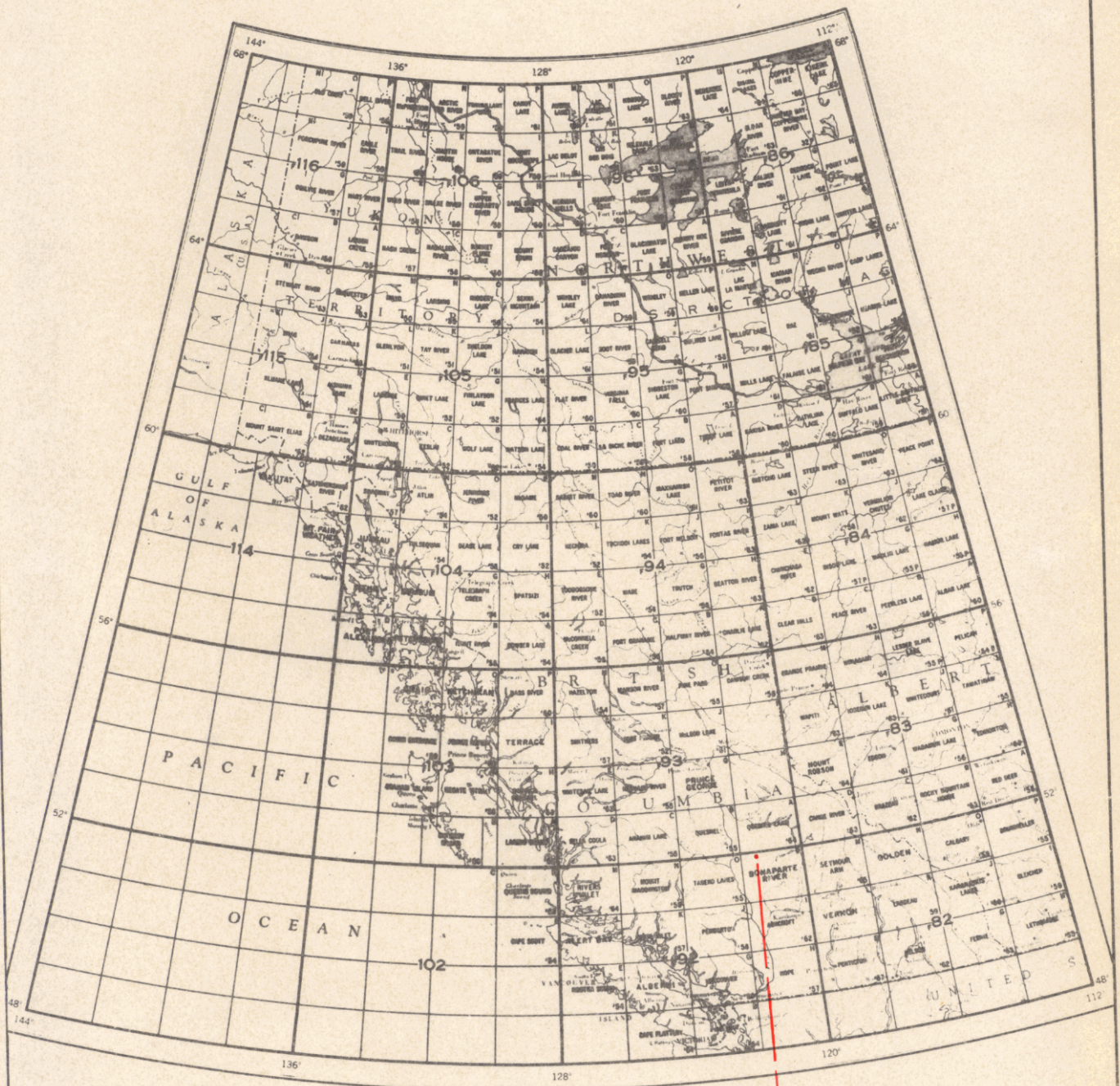
A Report on a Magnetometer Survey
of part of the
PEACH NORTH and SOUTH GROUPS
Clinton Mining Division
(1 - 2 miles south of Peach Lake, 51° 121° S.E.)
by
R. H. Janes, P. Eng.
CORANEX LIMITED
1st. May — 8th. August, 1967

C O N T E N T S

Introduction	Page 1
Geology	" 4
Copper Mineralization	" 5
Magnetite Occurrences	" 6
Magnetometer Survey - Method	" 6
Magnetometer Survey - Results	" 7
Conclusions and Recommendations	" 7

M A P S

Index Map # <i># 12</i>	Figure 1	
Location Map # <i># 13</i>	" 2	Page 2
General Geology # <i># 14</i>	" 3	" 3
Preliminary Geology Peach Lake Area # <i># 16</i>	" 4	In Pocket
Peach North Grid, Magnetics # <i># 15</i>	" 5	In Pocket



Peach Grp.

WESTERN CANADA

Department of
 Mines and Petroleum Resources
 ASSESSMENT REPORT
 NO. 1037 MAP #12

Figure I

INTRODUCTION

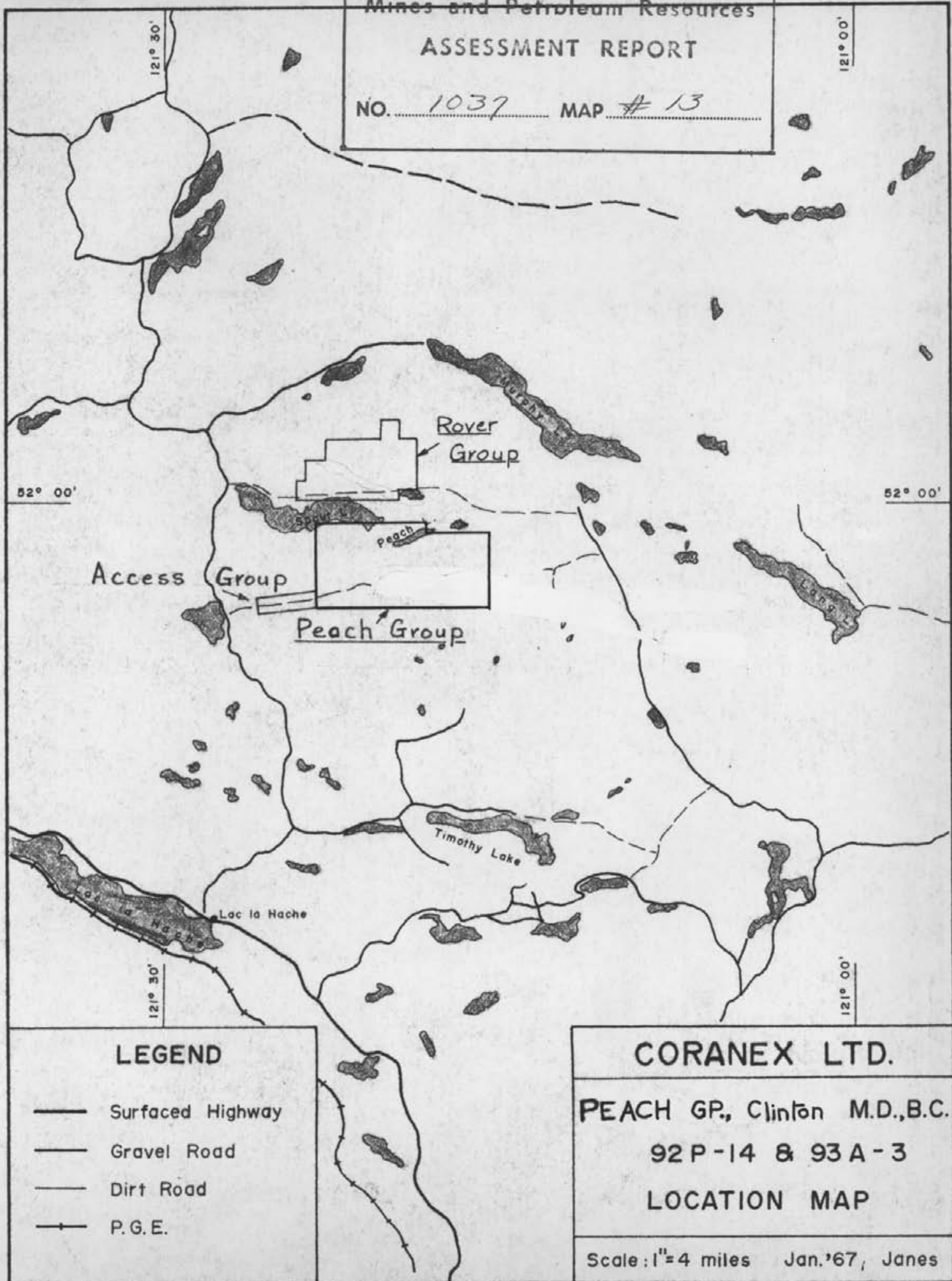
A magnetometer survey over a recent copper discovery is described. This discovery was located as a result of a geochemical reconnaissance programme carried out in 1966.

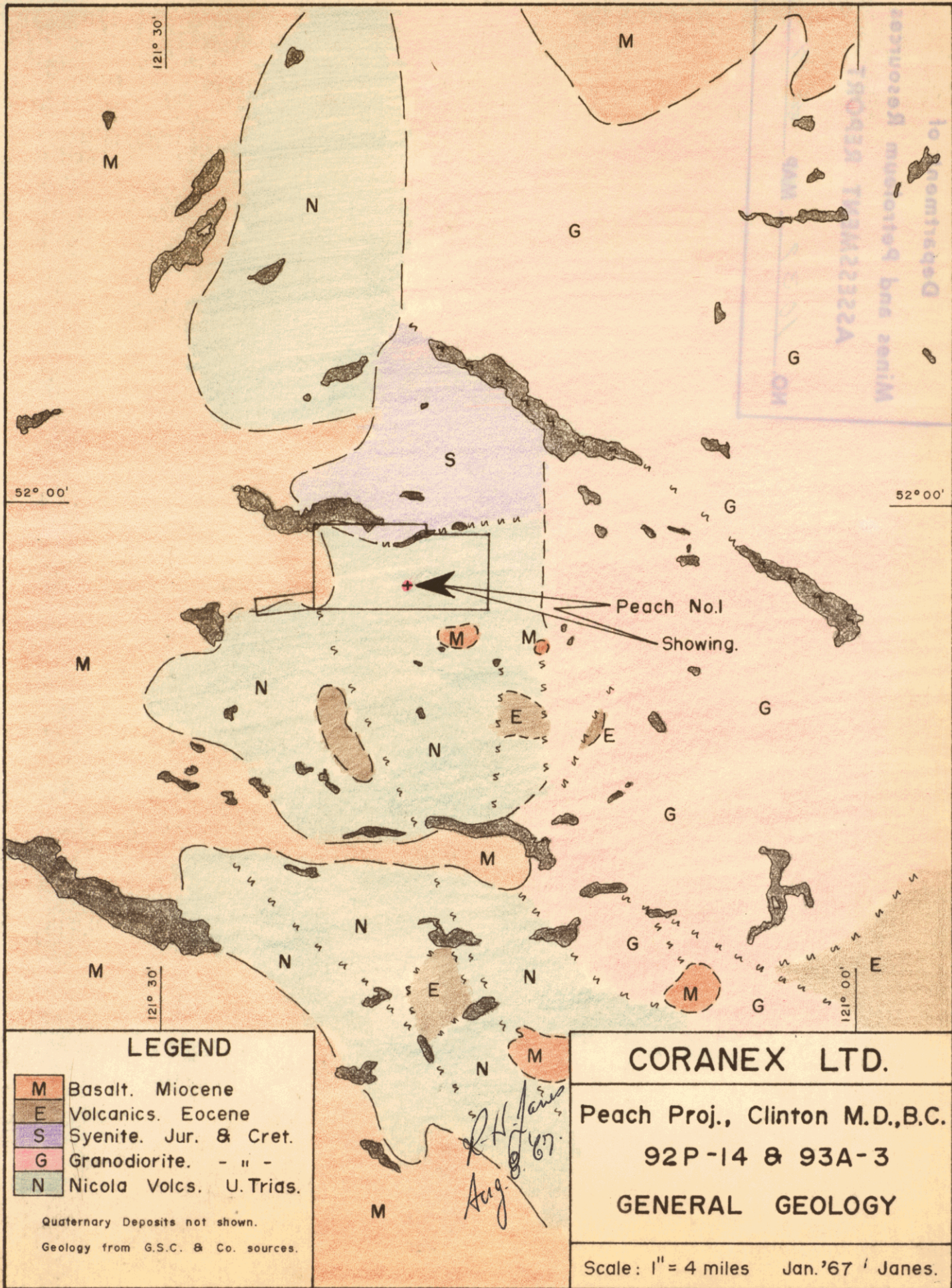
The magnetometer survey forms part of an extensive exploration programme involving geological mapping, geochemical surveys and bulldozer trenching carried out since August 8th, 1966. The main geochemical and magnetometer surveys were run concurrently in the period May--July 1967. The reader is referred to the geochemical report* filed for assessment work for information on location, access, history of and work done on the surveyed area.

*A report on the Geochemistry of the Peach North and South Groups, Clinton M.D. 1st. September, 1966 -- 8th. August, 1967, by R. H. Janes.

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT

NO. 1037 MAP # 13





LEGEND

M	Basalt. Miocene
E	Volcanics. Eocene
S	Syenite. Jur. & Cret.
G	Granodiorite. - " -
N	Nicola Volcs. U. Trias.

Quaternary Deposits not shown.
Geology from G.S.C. & Co. sources.

CORANEX LTD.

Peach Proj., Clinton M.D., B.C.
92P-14 & 93A-3
GENERAL GEOLOGY

Scale: 1" = 4 miles Jan. '67 / Janes.

GEOLOGY

1. General

Geological mapping of the area is sketchy. C. J. Campbell, R. H. Janes and J. R. Woodcock spent ten days at the end of September mapping the Nicola Volcanics south of Peach and Spout Lakes. This was done using air photographs of scale 1" = 1/4 mile. Traverses were planned to provide background information for planning the 1967 programme.

The area considered extends from Murphy Lake southward to Timothy Lake and from Spout Lake — Timothy Lake eastward to Bradley Creek, an area of approximately 115 square miles. The main topographical features are (i) a series of east-northeast—west-southwest and east—west trending lake and drainage systems and (ii) two deep parallel valleys which trend north-northwest. These latter valleys, Timothy and Bradley border the area. Between them lies the Mt. Timothy massif**.

The major portion of the massif is composed of Nicola Volcanics which lie within an embayment in the southwest corner of a major batholith. A granodiorite phase forms the east flank of the massif. A syenitic phase protrudes from the batholith and underlies the area north of Peach Lake and may extend north to Murphy Lake and Eagle Creek. Two varieties are present, each distinct in colour and location. Pink syenite occurs north of Peach and Bluff Lakes and grey syenite to the south and east of Spout Lake. Bluff Lake, situated within the pink syenite, has a noticeable deposit of iron hydroxides along its shore. In the northwest the syenite is overlain by Eocene Volcanics. The contact between syenite and Nicola Volcanics is overlain by recent sediments. The Nicola Volcanics and the granodiorite are separated by a zone of contact metamorphism along which hornfels has developed. Nicola Volcanics underlie the Peach and Fly Groups. These are largely coarse fragmentals but some fine grained tuffs crop out on the Fly Group. Small isolated occurrences of meta-diorite, surrounded by zones of dioritization, occur in the Nicola Volcanics within the embayment. The Peach Group of claims covers most of the meta-diorite occurrences.

A dark massive pyroxene-rich rock, termed a pyroxene basalt, crops out in an east—west trending ridge south of Spout Lake. It also forms narrow dyke-like bodies within the Nicola Volcanics.

2. Structure

Only the gross structures are recognized due to the lack of banding and marker horizons.

The topography is assumed to reflect zones of movement. The bounding north-northwest trending valleys of Timothy and Bradley Creeks represent the major faults of the area. Between these valleys the drainage pattern shows a preferred direction of east—northeast (65°) and may reflect the development of a tension fracture system. The contacts between the syenite and the Nicola Volcanics and between the two varieties of syenite may also follow this direction.

**Term for a mountainous mass or a group of connected heights.

COPPER MINERALIZATION

1. Introduction

Minor copper mineralization is scattered over an area of approximately 12 square miles. Though prospecting and mapping disclosed many minor occurrences only one, Peach #1 Showing, is considered to be important at present. This is described in detail in the following section.

Two types of mineralization are evident according to alteration and host. The most important is where chalcopyrite occurs in and adjacent to meta-diorite and is associated with areas of orange alteration. The second type, much less significant, is where minor chalcopyrite and bornite occur in green skarn zones. The Peach #1 Showing is of the first type. The Tim #1 Occurrence is of the skarn type. Several float occurrences of fresh andesite carrying chalcopyrite or copper staining in fractures have been noted. Minor mineralization is present in the pink syenite.

Peach #1 Showing

The showing is situated on the north flank of the Mt. Timothy massif at the edge of the summit plateau, elevation 4400 feet above sea level. Chalcopyrite was first seen in locally derived float. Outcrop is fairly common and intermittent mineralization can be found over an area 800 feet by 200 feet. Outcrop is absent to the east.

Dioritized volcanics underlie the area, the extreme phases of meta-diorite crop out approximately 1000 feet to the west and to the south of the initial discovery area (the hand-dug trench).

Chalcopyrite occurs as fracture fillings and as associated local disseminations. Such fractures generally show orange coloured areas of alteration which on occasion carry tourmaline. The amount of chalcopyrite present tends to correspond with the degree of orange alteration. Three parallel zones of fracturing were exposed in the trenching, the approximate strike is 55°. Overall attitudes cannot be determined yet.

Associated minerals are few. Plates of secondary biotite up to 1/2" in diameter are present locally (Tr's. 1 & 2). Chalcedony and crystalline chalcopyrite are present in some vugs. Pyrite is rare at surface. However a trench blasted into trench #1 exposed mixed pyrite and chalcopyrite.

Weathering has produced appreciable iron oxides along the fracture zones. This weathering extends below the level of the trenches as it follows the individual fractures and joints. Malachite and azurite occur in the wetter areas. The general lack of pyrite suggests that it is the chalcopyrite in the fractures that has broken down. However, carbonate is present up to 20% in some rock specimens and, if ankeritic would provide some iron oxides on weathering.

Of the occurrences located to date only this showing was considered to merit further detailed work. Sampling of the bulldozer trenches was curtailed by snow. Trench #1 was not completed and trenches #2 and #3 were sampled at the best looking locations.

Trench #1 affords the best intersections:-
 0.33% Cu. & 0.02 oz. Au. over 40 feet and
 0.37% Cu. & 0.02 oz. Au. over 10 feet
 Zones are 90 feet apart (intervening area not all sampled)

Trench #3:
 0.51% Cu. & 0.04 oz. Au. over 10 feet and
 0.93% Cu. & 0.01 oz. Au. over 10 feet
 Zones are 50 feet apart (intervening area not all sampled).

The best section in the hand-dug trench next to trench #1
 gave 0.46% Cu. & 0.01 oz. Au. over 10 feet

Check analyses for tin and uranium:-

Sample	Au. (oz.)	Cu. (%)	Tin (%)	U ₃ O ₈ (%)
6786	0.06	0.39	Tr.	0.01
92893	0.02	0.41	Tr.	0.005

All the fractures along the sample lines were weathered and contained limonite and allied oxides. Most of these iron oxides are considered to have originated from chalcopryrite breakdown. The amount of depletion of copper values at surface due to weathering processes (chemical and mechanical) is unknown, but may be significant.

MAGNETITE OCCURRENCES

Magnetite occurs as fine disseminations in the meta-diorites and dioritized volcanics. Volume content is estimated to average about 2 to 3 percent.

In the dark andesitic volcanics magnetite is much less obvious and the content is not known.

Veins of magnetite occur associated with the copper mineralization at several localities. One is at L36E, 63S. Here, fine veins of magnetite up to 1/8 of an inch wide form localized networks associated with a chalcopryrite occurrence.

At the Peach No. 1 Showing magnetite is evident only as a fine dissemination in the host dioritized volcanics.

MAGNETOMETER SURVEY—METHOD

The survey was carried out over an extensive grid system. North—south

lines at 800-foot intervals were laid out to cover an area 12,000 feet long in an east—west direction and 7000 feet in a north—south direction. A central north—south picket line and bordering east—west picket lines provided the necessary control. The remaining lines were blazed north—south using a compass bearing. All lines were picketed or marked at 200-foot intervals (horizontal distance). Particular areas of interest within the grid were covered in greater detail.

The instrument used is a Sabre Portable (fluxgate) Magnetometer* which registers the vertical component and has a sensitivity of 40 gammas per scale division.

Readings were taken at 100-foot intervals on the north—south lines. Base stations were set up at several convenient points on the base line. Corrected instrument readings are plotted and contoured in gammas at intervals of 800 gammas. A base value of 10,000 gammas was ascribed to the area.

MAGNETOMETER - RESULTS

The results indicate that a zone or horizon with a distinctive magnetic intensity trends northwest—southeast across the grid area. The vertical component of this zone is, on the average, about 1000 gammas greater than that of the areas to the southwest and possibly, northeast.

Within the zone outlined the magnetic intensity shows several isolated highs. One of these, on L40E at 44S, is due to vein magnetite. Associated with this are small amounts of chalcopyrite.

CONCLUSIONS AND RECOMMENDATIONS

The magnetometer survey indicates that a zone is present which has a distinctive magnetic character and that this feature is gross enough for its easy recognition using reconnaissance magnetic techniques. This zone correlates well with a zone, anomalous in copper, which was outlined by a concurrent geochemical soil survey.

A direct correlation between magnetics and significant chalcopyrite mineralization is not evident.

Geochemical soil sample surveys are in progress to the east and continued use of the magnetometer in conjunction with these surveys is considered useful.



R. H. Janes

August 8, 1967

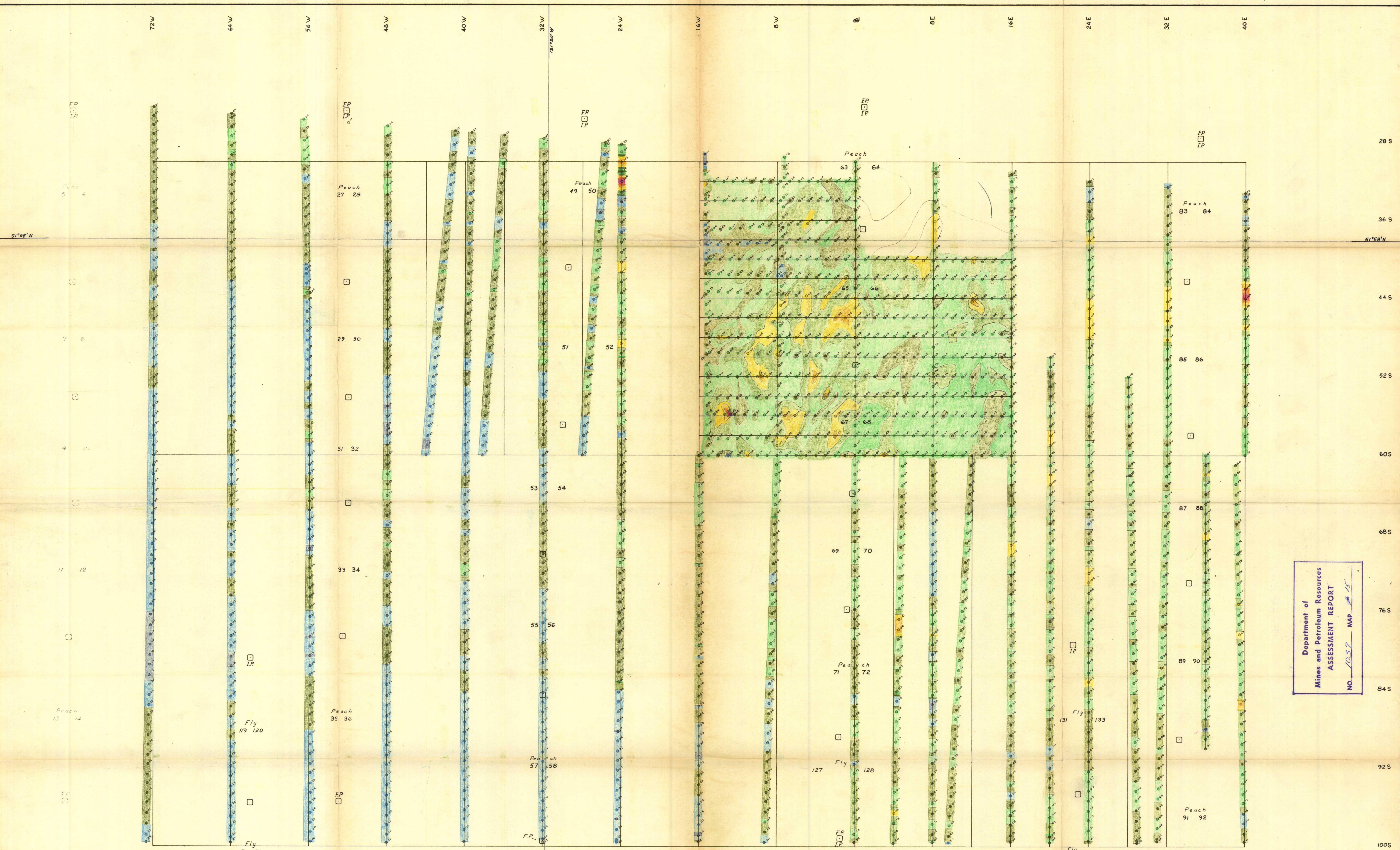
*Manufactured in Vancouver by Sabre Electronic Instruments Ltd.

APPENDIX I

Personnel

Operator: D. J. Matthews, student from University of British Columbia, presently in Honours English, formerly in Physics. Previously worked at Britannia and Bethlehem Mines and for Coranex Limited during the period May — September 1966.

Supervisor: R. H. Janes, P. Eng.



LEGEND

10,000 - 10,800 γ	14,000 - 14,800 γ
10,800 - 11,600 γ	14,800 - 15,600 γ
11,600 - 12,400 γ	15,600 - 16,400 γ
12,400 - 13,200 γ	16,400 - 17,200 γ
13,200 - 14,000 γ	> 17,200 γ
□ Claim Post	

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 1037 MAP 15

1037

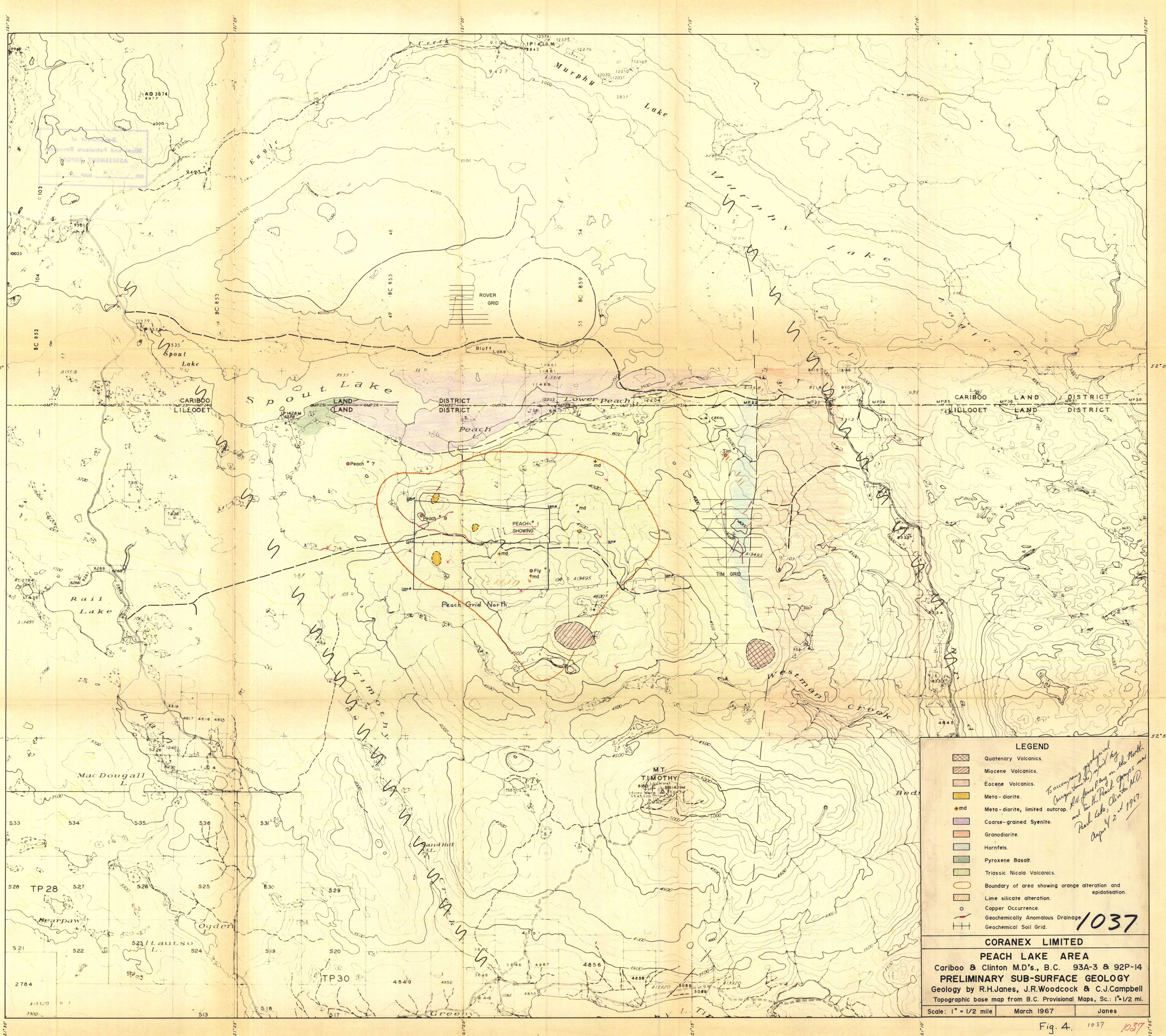
CORANEX LIMITED

PEACH LAKE PROJECT
PEACH GRID NORTH
MAGNETICS

1" = 400' July 1967 Matthews

*to accompany geophysical report by
R.H. Jones P. Eng. on the North of
South Peach Groups near Peach Lake,
Clinton M.D., Aug. 2nd 1967.*

Fig. 5.



LEGEND

- Quaternary Volcanics.
- Miocene Volcanics.
- Eocene Volcanics.
- Meta-diorite.
- Meta-diorite, limited outcrop.
- Coarse-grained Syenite.
- Granodiorite.
- Hornfels.
- Pyroxene Basalt.
- Triassic Nicola Volcanics.
- Boundary of area showing orange alteration and epidotisation.
- Lime silicate alteration.
- Copper Occurrence.
- Geochemically Anomalous Drainage.
- Geochemical Soil Grid.

*To accompany geological map
 Cariboo & Lillooet M.D.'s, B.C.
 and the Peach Lake area
 and the Peach Lake area
 Peach Lake, Cariboo M.D.
 August 2 and 1967.*

1037

CORANEX LIMITED

PEACH LAKE AREA
 Cariboo & Clinton M.D.'s, B.C. 93A-3 & 92P-14
PRELIMINARY SUB-SURFACE GEOLOGY
 Geology by R.H.Janes, J.R.Woodcock & C.J.Campbell
 Topographic base map from B.C. Provisional Maps, Sc.: 1"=1/2 mi.
 Scale: 1" = 1/2 mile March 1967 Janes