

GEOLOGICAL AND GEOPHYSICAL REPORT
ON THE
RWS 1 AND RWS 3 CLAIMS
VANCOUVER MINING DISTRICT

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

10,994

PART 2 OF 2

GEOLOGICAL AND GEOPHYSICAL REPORT
ON THE
RWS 1 AND RWS 3 CLAIMS
VANCOUVER MINING DISTRICT
BRITISH COLUMBIA
NTS 92G/10W
APPROXIMATE COORDINATES
49°34'N 122°58' W
FOR
WESTERN TRINITY OIL AND GAS LTD.

January 6, 1983

W.G. Timmins Exploration
& Development Ltd.

TABLE OF CONTENTS

	PAGE NO.
SUMMARY	
Introduction	1
Property	2
Location and Access	2
Property Map	3
Location Map	4
Topography, Vegetation and Climate	5
Power, Water and Supplies	6
History	7
Regional Geology	8
Geology of the Property	9
Geophysical Survey	
Introduction	10
Survey Procedures	10
Instrumentation	12
Data Reduction and Compilation	13
Survey Results	14
Interpretation of Survey Results	15
Conclusions and Recommendations	16
Estimated Cost of Program	18
Certificate	19
References	20
APPENDIX I - Geophysical Map	

SUMMARY

Western Trinity Oil and Gas Ltd. holds the contiguous RWS 1 and RWS 3 claims located near Indian River in the Vancouver Mining District of British Columbia, a few kilometers from the economically important Brittania mining camp.

The claim area has been staked previously, but no assessment work is on record.

According to maps of the Geological Survey of Canada, the claim area is underlain by granodiorite of the Cretaceous Coast Intrusives; with rocks of the Jurassic Gambier Group, favourable host rock to mineralization in the district, outcropping a short distance to the northeast.

An airborne magnetic and VLF-EM survey was flown over the property in October 1982 by Columbia Geophysical Services Ltd. Results of this work indicate the possibility that part of the claim area may in fact be underlain by rocks of the Gambier Group. A modest program of geological, geochemical and prospecting work is proposed to test this theory and to further evaluate the property.

INTRODUCTION

During the month of October 1982, Columbia Geophysical Services Ltd. conducted an airborne magnetic and two-channel VLF-EM survey over the contiguous RWS 1 and RWS 3 claims of Western Trinity Oil and Gas Ltd. This property consists of 40 units, and is situated on the west flank of the Indian River valley, some 42 km. north-northeasterly of the city of Vancouver, B.C.

The purpose of this report is to discuss results of this survey, to analyse them in the light of published geologic data on the area, and to recommend a possible program of follow-up ground exploration.

PROPERTY

The Western Trinity Oil and Gas Ltd. property consists of two modified grid claims totalling 40 units. Of these, some seven or more units may not be in good standing due to slight overlap with pre-existing claims on the east and with the Vancouver District Watershed on the west.

Western Trinity's claims, listed below with their record numbers and anniversary dates, are located in the Vancouver Mining District of British Columbia, on claim sheet 92G/10W.

Name	No. of Units	Record No.	Anniversary Date
RWS 1	20 (4N x 5W)	1119	Nov. 30, 1982
RWS 3	20 (4N x 5W)	1121	Nov. 30, 1982

LOCATION AND ACCESS

The property is located in southwestern British Columbia, on the mainland some 42 km. NNE of the city of Vancouver. The claims lie on the Indian River side of the ridge dividing the Seymour River and Indian River watersheds. The southern boundary of the property passes near some small lakes at the headwaters of Forestry Creek, a tributary to Indian River. Indian River is the major drainage in the area, and it enters tidewater at the head of Indian Arm, the

W. G. TIMMINS EXPLORATION & DEVELOPMENT LTD.

CONSULTING GEOLOGISTS

FALCONBRIDGE
NICKEL
MINES

STACKPOOL
RESOURCES

ABILENE
OIL & GAS

ANACONDA

ABILENE
OIL & GAS

ANACONDA

ALSTER
ENERGY



Jukes
Mtn.

RWS 1
1110 (H)

TRINITY
OIL & GAS
LTD.

RWS 3
1121 (H)

PAN

ALASKA

RESOURCES

SA

WATERSHED

CHEVY
OIL
CORP.

NO

Forestry

CR.

STAKING

49° 32' -

RUDOLPH SECURITIES

Symour

River

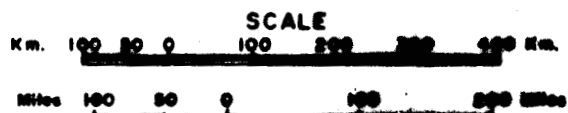


TRINITY OIL & GAS LTD.
PROPERTY LOCATION MAP
SQUAMISH AREA-VANCOUVER M.D.
NTS 92G/10W **B.D.S.**



TRINITY OIL & GAS LTD.

PROPERTY LOCATION MAP



northerly extension of Burrard Inlet. The claim area is approximately centered on a point at $49^{\circ}34'N$ and $122^{\circ}58'W$.

Road access to the property is available by way of a four-wheel drive logging road out of the town of Squamish, B.C., some 50 km. north of Vancouver on Highway 99.

TOPOGRAPHY, VEGETATION AND CLIMATE

The property is in the Coast Range physiographic region, a mountainous area characterized by uneven craggy ridges interrupted by deep transverse saddles and steep-walled narrow valleys. The relative relief in the claim area is on the order of 1,300 meters. The northeastern corner of RWS 1 lies in the Indian River valley at an elevation of 244 meters, while Mt. Jukes, in the southwestern part of RWS 1, is at an elevation of 1,572 meters.

The major valleys and principal tributary valleys are U-shaped in cross-section, indicative of their glacial origin. The walls of those major valleys are furrowed by the V-shaped gullies of numerous run-off streams. Indian River has a gradient of about 9% in the vicinity of the property. The smaller tributaries have gradients averaging about 28%.

The area is heavily forested with Douglas fir, cedar and spruce, except on the higher peaks, where alpine type vegetation prevails, or in those parts of the slopes which have been logged off. The logged-off areas soon become densely overgrown with shrubs, alders and young trees.

The climate in the area is moderate, with cool winters and warm summers and generally heavy precipitation. In winter, a heavy snowpack can build up in the higher areas, but the lower boundary of the snowpack can vary greatly in elevation from year to year. The major rivers flow all year long.

POWER, WATER AND SUPPLIES

Power for exploration purposes could best be provided by portable generators. A major transmission line follows the course of Indian River, but it could not be tapped into for a minor project. Creeks in the area may have potential for small-scale hydroelectric development.

Adequate water for any phase of exploration and development is readily available from any of a number of creeks within the claim area.

Fuel, groceries, and hardware are available in Squamish,

W. G. TIMMINS EXPLORATION & DEVELOPMENT LTD.

CONSULTING GEOLOGISTS

some 30 km, by four-wheel drive road from the property. Anything not available in Squamish can be had in Vancouver, less than one hour from Squamish on a good highway.

HISTORY

The history of the area dates back to 1898 when Oliver Furry and associates discovered and staked extensive copper showings which later became the Britannia mining camp. The Britannia camp produced, from 1905 to 1974, 55 million tons of ore grading 1.1% copper, 0.65% zinc, 0.2 oz/ton silver and 0.02 oz/ton gold. This ore came from a large number of separate orebodies within the Britannia shear zone.

The discovery of the Britannia camp sparked a flurry of prospecting both to the east and west. A number of copper showings were discovered between 1908 and 1911 in the Indian River Valley, near the Stawamus -- Indian River divide, and also on Mt. Baldwin near the headwaters of Raffuse Creek. The Howe Sound Company, which controlled the Britannia mine, acquired many of the Indian River showings at this time. The showings in the Raffuse Creek area called the McVicar showings, were optioned by various companies including Consolidated Mining and Smelting (Cominco), and are presently held by Kidd Creek Mines Ltd.

Maggie Mines Ltd. holds a large property straddling the Stawamus River -- Indian River divide, which covers copper-lead-zinc showings discovered in 1976 in the pass between Indian and Stawamus rivers. A 1982 discovery by Maggie, about one kilometer southeast of the pass, on the southwest side of the Indian River valley, consists of copper-zinc mineralization with considerable values in gold. This is significant in that gold has not been of major importance in previously known deposits in the area, including the Britannia mine.

Minor, sporadic exploration work has been done on other copper properties near Ray Creek on the lower Stawamus River, near Martin Creek in the middle section of the Mamquam River, and south of Alpen Mountain at the headwaters of the Mamquam River.

The claim area has been previously staked and abandoned, but there is no assessment work on record.

REGIONAL GEOLOGY

The area is underlain by rocks of three major units. The oldest of these are metasedimentary and metavolcanic rocks of Jurassic age, designated as the Gambier Group by the G.S.C.

The Gambier group exists as a number of roof pendants on the quartz diorites, granodiorites and related rocks of the Cretaceous Coast Range intrusives.

Both these older groups are overlain by lavas of the Garibaldi Group, of late Tertiary to Recent age. Many steeply inclined dykes of Garibaldi Group rocks cut the older rocks over a wide area.

Significant mineralization in the area appears to be confined to Gambier Group metavolcanics of rhyolite to dacite composition. These are associated with argillites, cherts, and minor anhydrite and barite.

GEOLOGY OF THE PROPERTY

Geological Survey of Canada map 1151A, 1964, entitled Geology, Pitt Lake (1 inch to 4 miles), shows the area of the claims to be underlain by granodiorite of the Coast Intrusive Rocks. A body of Gambier Group metavolcanics and metasediments lies near the northeast corner of the claim block, and may possibly extend into it.

The property was visited by David P. Taylor, P. Eng. during the fall of 1982, however no report on this visit presently available to the writer.

GEOPHYSICAL SURVEY

Introduction

During the month of October 1982, Columbia Geophysical Services Ltd. conducted a detailed low-level combined airborne magnetic and VLF-EM survey over a number of properties in the Indian River area. The RWS 1 and RWS 3 claims were among those covered by the survey.

Survey Procedures

The survey was contour flown at 75 meter elevation intervals. The mean bird terrain clearance was 50 meters. Navigation was visual, using 1:50,000 scale N.T.S. maps blown up to 1:10,000. For ease of reading, water features on these maps were coloured in blue, and topographic highs were outlined in orange and red. The flying was difficult, due to the rugged and varied terrain, but the chief navigator, Mr. Lloyd Brewer, who had previously done much of the claim staking in the area, was able to draw on his experience to overcome numerous navigational pitfalls. He carried out his duties in a thoroughly diligent and professional manner.

Aerial platforms used to conduct this survey were Bell Jet Ranger III helicopters owned and operated by Quasar Aviation and Corporated Helicopters Ltd. The pilots were Mr. Dave VanPatten and Mr. Jim Logue, who were chosen over other operators in the province because of their rotary-wing experience and their familiarity with the mountainous terrain east and west of Howe Sound.

Mr. Eugene Dodd, President of Columbia Geophysical Services Ltd., was the instrument operator and project supervisor.

A two meter bird, specifically designed for the Squamish airborne project, was fitted with a magnetometer coil and two omnidirectional EM receivers and towed beneath the helicopter on a 10 meter cable.

Airspeed was a constant 60 K.P.H. Creek valleys and canyons were penetrated thoroughly. The slow airspeed provided safety, detailed coverage of boxed-in areas, and consistency of data retrieval, which is critical in rugged terrain. Increased airspeed would increase the inconsistency of the results.

The project supervisor, Mr. Dodd, has over 14 years of experience in conducting aerial magnetic, electromagnetic,

and radiometric surveys from fixed and rotary wing aircraft, under all types of terrain conditions.

Instrumentation

Magnetic Survey

The magnetic data are detected using a nuclear free precession proton magnetometer, manufactured by Sabre Electronic Instruments Ltd., of Burnaby, B.C. The magnetometer measures the total count of the earth's magnetic field intensity with a sensitivity of one gamma. The data are recorded on magnetic tape and a 12 cm. analog strip chart.

VLF-EM Survey

A two frequency omnidirectional receiver unit, manufactured by Sabre Electronic Instruments Ltd., of Burnaby, B.C., is used for the VLF-EM survey. The transmitters used are NLK Arlington (Seattle) Washington, operating at 24.8 KHz, and NSS Cutler (Annapolis) Maine, transmitting at 19.0 KHz. These signals are used due to their ideal orientation with respect to north-south and east-west geological structures, and their good signal strengths. The measurement taken during the survey is the variation in the horizontal component of the signal field strength.

Data Reduction and Compilation

The observed magnetic total field was recorded on analogue strip charts. These were played back together with audio recordings containing fiducial markers, and the fiducial markers were transferred to the strip charts. The fiducial markers were identified with topographic features along the flight lines.

Each flightline within each survey map-area was digitized using a Houston Hipad digital digitizer, and the data was stored on 5¼ inch microcomputer diskettes.

The fiducial marker locations, and flightline paths between fiducial markers along non-linear flight lines, were digitized with an accuracy of ± 12.5 meters.

After merging the flightline information with the flightline location coordinates, an equispaced map grid matrix was computed. The total magnetic field was interpolated at regularly spaced positions every 125 meters from the observed data. The interpolation method consisted of a linear skew norm. method based on the potential field equation. All computations were completed on an OTRONA ATTACHE micro-computer.

W. G. TIMMINS EXPLORATION & DEVELOPMENT LTD.

CONSULTING GEOLOGISTS

The contour plans of the total magnetic field were generated using a computer printer plot contouring procedure. The accuracy of contour locations is believed to be ± 16 meters. The final contour plans were traced from the printer plot contour plans onto draughting film, and VLF-EM field strength peaks and geological information were superimposed.

Survey Results

The final map derived as previously explained is included as an appendix. The lineations shown are those interpreted by the staff of Columbia Geophysical Services Ltd.

Magnetic intensity varies from 1,800 to 2,800 gammas within the claim area, thus yielding a relief of 1,000 gammas.

The property appears to be divided into two distinct magnetic domains. The larger is characterized by a background value of about 2,000 gammas and a number of small, abrupt circular or elliptical highs of 2,200 to 2,800 gammas, with relatively steep gradients on the order of 200 - 400 gammas per 100 meters. The smaller domain, in the northeast corner of the claim block, has about the same background value, but has broader, gentler elliptical highs with gradients on the order of 50 - 100 gammas per 100 meters. Most of this domain is

W. G. TIMMINS EXPLORATION & DEVELOPMENT LTD.

CONSULTING GEOLOGISTS

in the part of the claim block that is in conflict with pre-existing claims.

There are a number of VLF-EM anomalies on both channels, but no coincident anomalies. There are two interpreted lineations for NLK, Seattle, one trending S 40°E, parallel to the regional strike, and one at N 60°E, parallel to the course of a small stream, but offset about 250 meters to the north. The latter lineation does not correspond to an anomaly on every flight line, and may be an invalid interpretation of the data.

There is a possible northeasterly trending lineation for NSS, Annapolis, near the north boundary of the claim block, within the smaller magnetic domain. Two of the anomalies along this lineation are apparently within the part of the RWS 1 claim that is in good standing.

Interpretation of Survey Results

The magnetic pattern described previously, with a domain of sharp gradients and spot highs in the majority of the property, and a domain of gentle gradients and broad highs in the north-east corner can be explained by attributing the former to the granodiorite intrusive rocks which are mapped as occurring

here, and the latter to metasedimentary or metavolcanic rocks of the Gambier Group. The Gambier Group rocks are mapped on a regional scale as occurring a short distance to the north-east of the claim block, but it is worth noting that the contact between them and the intrusives is nearly parallel to the boundary between the two magnetic domains.

The VLF-EM lineations within the part of the claim group underlain by intrusives may be due to shear zones or concentrations of pyrite, but are likely of little significance, since few, if any major mineral occurrences known to date in this camp are hosted by the plutonic rocks.

The Annapolis anomalies forming a possible lineation near the northern boundary of the claim block are of more interest in that they are located near the edge of an area that, based on magnetic data, may be underlain by rocks of the Jurassic Gambier Group, favourable host rocks to mineralization in the district. These anomalies may be due to a mineralized shear zone in the metavolcanics.

CONCLUSIONS AND RECOMMENDATIONS

The RWS 1 and RWS 3 claims of Western Trinity Oil and Gas Ltd. are situated near Indian River in the Vancouver Mining District

of British Columbia not far from the economically important
Brittania mining camp.

According to the regional geologic map published by the
Geological Survey of Canada, the claim area is underlain
wholly by granodiorite of the Cretaceous Coast Intrusive
Rocks. However, results of an airborne magnetic and
electromagnetic survey flown in October 1982 by Columbia
Geophysical Services Ltd. suggest that the northeast corner
of the claim block may be underlain by different rocks, most
probably the Jurassic Gambier Group, host rock to the major
mineral deposits in the district. There are some VLF-EM
anomalies forming a possible conductor in this zone.

A modest program of work is recommended to test the theory
that the magnetic pattern in the northeast corner of the claim
block is due to rocks of the Gambier Group, and to search for
the causative source of the VLF-EM anomalies. Since the
property in this area is bounded by pre-existing claims,
which if in good standing, have priority, their boundaries
should be determined as accurately as possible before or
during this work. As an adjunct to this program a reconnaissance
geochemical survey should be carried out; this would chiefly
entail collection and analysis of stream sediment samples
with lesser amounts of soils and rocks. A grid-controlled
soil geochemical survey over restricted areas could be

employed at the discretion of the geologist in charge of the field program.

The work program recommended is expected to require about 10 days work on the part of a geologist and two assistants, along with laboratory expenses for up to 200 samples, as detailed in the following cost estimate:

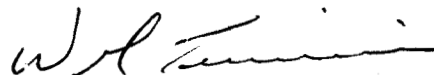
ESTIMATED COST OF PROGRAM

Geologist for 10 days @ \$200 per day	\$2000
Two assistants for 10 days @ \$100 per man	2000
Groceries and supplies @ \$40 per man	1200
4x4 rental for 10 days @ \$50 per day	500
Fuel for 10 days @ \$20 per day	200
Miscellaneous camp costs	200
Analyses, 200 samples at \$10 per sample	2000
Mobilization & demobilization from Vancouver	300
Geological supervision and report preparation	2500
	<u>10900</u>
Contingency @ 10%	<u>1090</u>
Total	\$11990

Further work, if any would be contingent upon the results of the above program.

Respectfully submitted,

W.G. TIMMINS EXPLORATION
& DEVELOPMENT LTD.



W.G. Timmins, P. Eng., P. Geol.

W. G. TIMMINS EXPLORATION & DEVELOPMENT LTD.
CONSULTING GEOLOGISTS

CERTIFICATE

I, WILLIAM G. TIMMINS maintaining offices at #203, #4 Parkdale Crescent N.W., Calgary, Alberta do hereby certify that:

1. I am a geologist having been practising my profession for eighteen years.
2. I am a graduate of the Provincial Institute of Mining, Haileybury, Ontario and have attended Michigan Technological University, Houghton, Michigan.
3. I am a member in good standing of the Association of Professional Engineers of British Columbia and of the Association of Professional Engineers, Geologists and Geophysicists of Alberta.
4. I have no interest direct or indirect in the property or securities of Western Trinity Oil and Gas Ltd., nor do I expect to receive any such interest.
5. This report is based on a study of private, government and published reports and maps, and a low-level combined airborne magnetic and VLF-EM survey done by Columbia Geophysical Services Ltd.

Dated at Calgary, Alberta January 6, 1983:



W.G. Timmins, P.Eng., P.Geol.
W.G. Timmins Exploration
& Development Ltd.

W. G. TIMMINS EXPLORATION & DEVELOPMENT LTD.

CONSULTING GEOLOGISTS

REFERENCES

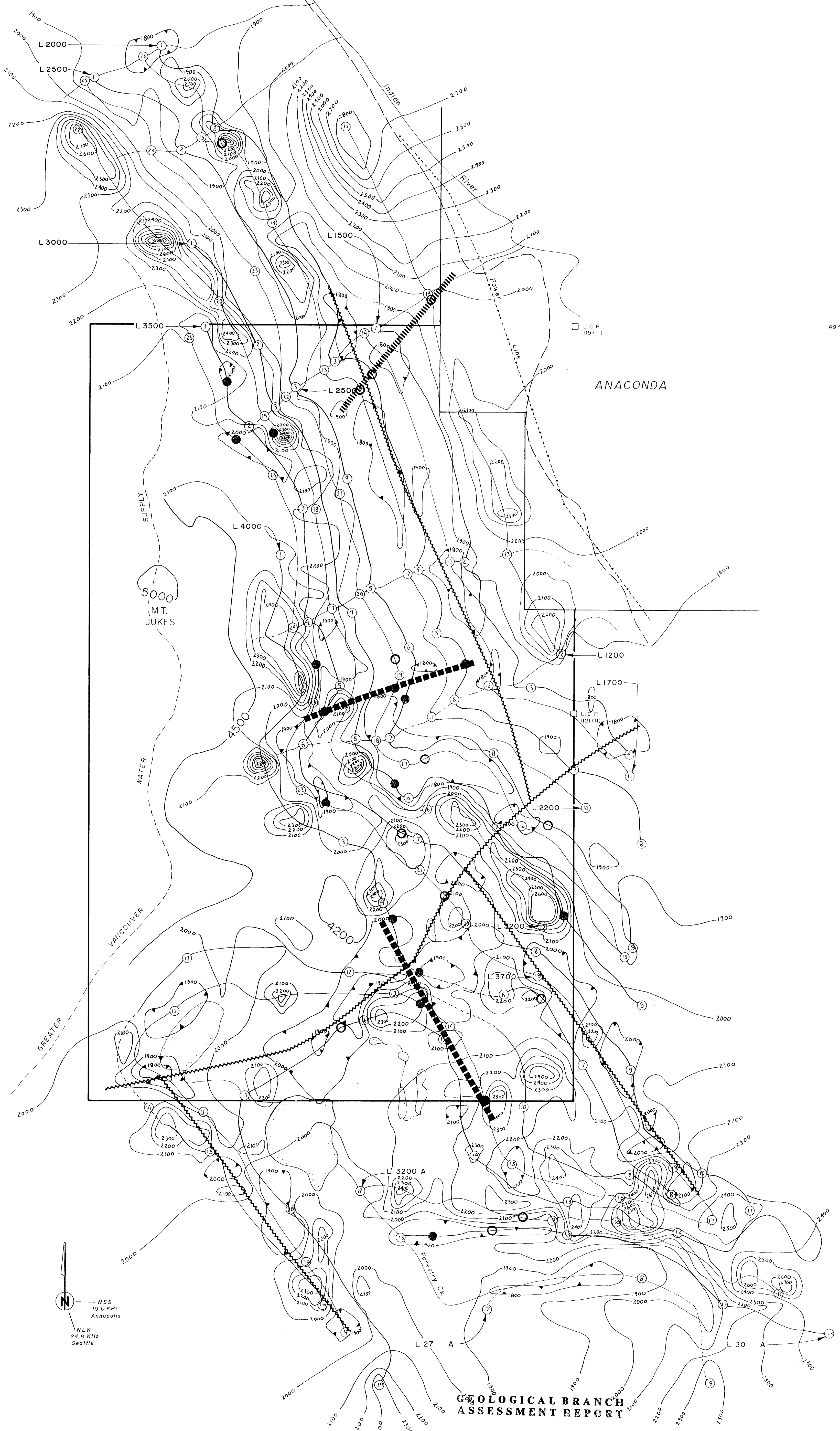
Roddick, J.A.: Pitt Lake Map-Area

Geological Survey of Canada Memoir 335, Map 1151A, 1964.

W. G. TIMMINS EXPLORATION & DEVELOPMENT LTD.

CONSULTING GEOLOGISTS

APPENDIX I



ANACONDA

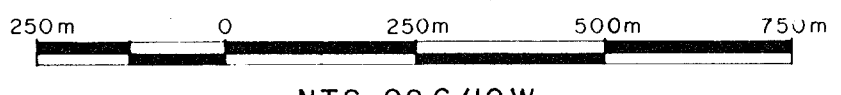
5000
MT. JUKES

GEOLOGICAL BRANCH
ASSESSMENT REPORT

10,994
PART 2 OF 2

LEGEND

- Claim boundaries
- Legal claim post
- Magnetic linear
- Fault
- NLK FS anomaly
- NSS FS anomaly
- Linear conductor NLK
- Linear conductor NSS
- Depression zones



N.T.S. 92 G/10W

TRINITY OIL & GAS LTD.
INDIAN RIVER PROJECT
SQUAMISH B.C.

ISOMAGNETIC MAP
CONTOUR INTERVAL: 100 GAMMAS

1:10,000 OCT. 82 I BRAD

COLUMBIA GEOPHYSICAL SERVICES LTD.