REPORT ON RECONNAISSANCE GEOLOGICAL MAPPING

CONDUCTED ON THE

TAH 2 - 21 MINERAL CLAIMS

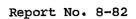
ALBERNI MINING DIVISION

N.T.S. 92 E 15

BETWEEN 49°47' and 49°56' North Latitude 126°33' and 126°37' West Longitude

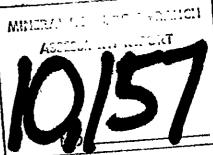
> OWNED AND OPERATED BY PAN OCEAN OIL LTD.

WORK DONE BY PAN OCEAN OIL LTD



Report By:

G.E. Chabot February, 1982



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#### I) GEOGRAPHY AND PHYSIOGRAPHY

The property is located in the Vancouver Island Ranges south of Tahsis, British Columbia (Fig.I). Access to the area is via the Head Bay Forest Road, a gravel road from Gold River, British Columbia. Access to the claims is by numerous logging roads, in various states of repair. The Tsowwin River road provides access to the southern end of the property while all access to the western part of the property, along Tahsis Inlet, is gained by abandoned logging roads from the inlet. The central portions of the property, especially along Tahsis Mountian, are most readily accessible by helicopter.

The property is heavily forested with Western Hemlock, Balsam Fir, Western Red Cedar, Douglas Fir and Sitka Spruce. The southern portion of the property is presently being logged; the inlet side of the property has already been harvested. Exceptionally dense forest, with considerable rainfall (up to 500cm/year), makes traversing difficult. The logging operations result in rock exposure and access to the property, which would otherwise be most difficult to evaluate.

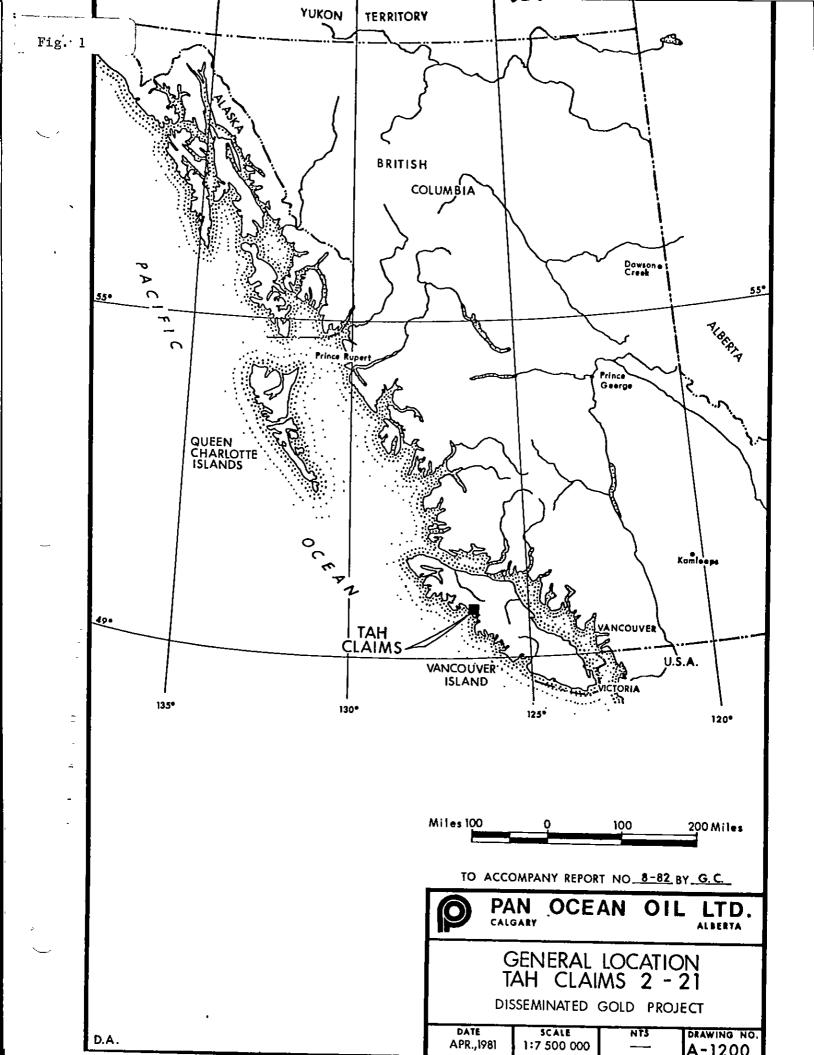
Slopes are steep, with elevation on the claims varying from sea level along Tahsis Inlet to 1291 metres at Santiago Mountain. Numerous creeks drain the property, many are intermittent. During periods of low precipitation, many of the creeks are non-existent, but during periods of heavy rainfall, the creeks become raging torrents capable of washing out roads. Consequently, many roads, that are not being actively used and maintained, are not passable by motor vehicle.

#### 11) PROPERTY DEFINITION, HISTORY AND ECONOMIC POTENTIAL

The property comprises 20 claims, Tah 2 to 21 (see Table 1). The Tah 2 to 19 claims were staked for Pan Ocean Oil Ltd. in February 1980 with Tah 20 and 21 being added in March 1981 (Plate I).

The reasons for acquiring the original claims have been given by White and Chabot, 1981. The Tah 20 and 21 claims were staked to protect anomalous heavy mineral and rock chip values.

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### TABLE I

LIST OF MINERAL CLA	IMS
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NAME	UNITS	RECORDING DATE	MINING DIVISION	RECORD NO	TAG NO
Tah 2	20	March 10, 1980	Alberni	743	39686
Tah 3	20	March 10, 1980	Alberni	744	39687
Tah 4	20	March 10, 1980	Alberni	745	39688
Tah 5	20	March 10, 1980	Alberni	746	39689
Tah 6	20	March 10, 1980	Alberni	747	39690
Tah 7	20	March 10, 1980	Alberni	748	39691
Tah 8	20	March 10, 1980	Alberni	749	39692
Tah 9	20	March 10, 1980	Alberni	750	39693
Tah 10	20	March 10, 1980	Alberni	751	39694
Tah 11	20	March 10, 1980	Alberni	752	39695
Tah 12	20	March 10, 1980	Alberni	753	39696
Tah 13	20	March 10, 1980	Alberni	754	39697
Tah 14	20	March 10, 1980	Alberni	755	39698
Tah 15	20	March 10, 1980	Alberni	756	39699
Tah 16	15	March 10, 1980	Alberni	757	39701
Tah 17	15	March 10, 1980	Alberni	758	39702
Tah 18	15	March 10, 1980	Alberni	769	39703
Tah 19	20	March 10, 1980	Alberni	760	39704
Tah 20	20	April 12, 1980	Alberni	1204	13231
Tah 21	20	April 12, 1980	Alberni	1205	13238

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The Zeballos mining camp, aproximately 20 kilometres northwest of the present property, recovered 287,811 ounces of gold and 124,700 ounces of silver. The mineralization is associated with the Zeballos Stock and generally is found as narrow, high grade quartz veins along shear zones. Two claim groups near the Tsowwin River were explored in the late 1930's. The Vivian group, located within the Tah 18 claim, consists of one 5 to 10 cm. vein of quartz and calcite occupying a fissure in altered volcanics (Hoadley, 1953). Assays of up to 2 ounces of gold per ton were obtained. The Mohawk group, located in the southeast corner of Tah 20, consists of a 20 cm. wide quartz filled fissure in fragmental volcanic rock. Banded and comb quartz are common, with crystalline quartz up to 2 cm. in length. The only sulphide mineral is minor, finely divided pyrite. The vein matter is sheared and slickensided, (Hoadley, 1953).

#### III) PROGRAM SUMMARY

During August and September, 1981, company geologists followed up previous geochemical exploration with a program of geological mapping at a scale of 1:10,000 and rock chip sampling. This work involved six geological students and two prospectors under the supervision of the writer. During the program, 220 rock chip samples were collected. The samples were analysed for Cu,Pb, Zn, Mo, Ag, Au, As, Sb, W and Hg.

The geology of the Tahsis area has been mapped on two occassions by the Geological Survey of Canada. G.S.C. Memoir 272, "Geology and Mineral Deposits of the Zeballos - Nimpkish Area, Vancouver Island, British Columbia" by J.W. Hoadley (1953) provides a detailed description of the local geology and early exploration. Further study and better access has lead to an updating of the lithological nomenclature as given in G.S.C. paper 80-16, "Geology and Mineral Deposits of Nootka Sound Map Area, Vancouver Island, British Columbia", by J.E. Muller, B.E.D. Cameron and K.E. Northcote. Two major changes have been made. The Vancouver Group has been restructured to exclude the Bonanza Subgroup. The Bonanza Subgroup is now separated as its own group. This nomenclature change sets apart the essentially different Triassic tholeiite-carbonate-clastic sequence of the Vancouver Group and the Jurassic basalt-andesite-dacite-rhyolite-sediment assemblage of the Bonanza Group. The other change is the classing of the Perry Lake and Santiago Stocks as Tertiary Catface Intrusions. Early workers had grouped these intrusions into the Island This change is the result of recent age dating. Intusions.

The property is chiefly underlain by rocks of the Vancouver and Bonanza Groups, (Table 2). The former consists of a thick pile of upper Triassic basaltic volcanics (Karmutsen Formation), overlain by Upper Triassic carbonate, pelitic and volcaniclastic sediments (Quatsino and Parson's Bay Formation). The latter consists of a Lower Jurassic sequence of basaltic to dacitic effusive and pyroclastic volcanics with minor intercalated sediments. Locally, the Vancouver and Bonanza groups have been intruded by small stocks and dykes of early Tertiary age which are proposed to be called Catface Intrusions (Muller, 1981), (Plate 2).

#### I) VANCOUVER GROUP:

a) Karmutsen Formation:

This formation is observed along the eastern and northern part of the property and underlies the Tah 3,6,9 and 12 claims. The contact is generally northwest trending and lies along the west side of the Perry River Valley. The contact appears to be fault controlled, however, it is generally not observable. To the south of Weymer Creek, a block of Karmutsen Formation appears to have been uplifted with respect to the Quatsino Formation which lies to the north of the creek in direct contact with the Karmutsen Formation.

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## CENOZOIC Recent till, gravel, sand, clay, silt Eocene Catface Intrusions tonalite, granodiorite hornblende-plogioclase porphyry, samll diorite stocks, mafic and felsic dykes and sills ------Intrusive contact------

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The Karmutsen rocks observed on the property consist of basaltic to andesitic volcanic flows which are often vesicular to amygdaloidal. They are generally chloritic which gives them a dark green to black color. Epidote alteration is ubiquitous. Calcite veinlets and coatings are common. The amygdules contain plagioclase, epidote and calcite. Locally, plagioclase amygdules with epidote centres are found. Sulphides are common but sporadic with pyrite and pyrrhotite being the most prevalent. Locally, magnetite and chalcopyrite are present.

#### b) Quatsino Formation:

This formation is observed in a northwest (290° to 310°) trending and southwest dipping (30° to 40°) belt. It underlies all or part of the Tah 4, 5, 7, 15, 18, 19 and 21 claims. Where observed, it conformably overlies the Karmutsen volcanics and grades into the overlying Parson's Bay and Bonanza Formations. Measured thicknesses range from approximately 275 metres to 460 metres with the thickest section in the vicinity of Tahsis Montain.

The Quatsino Formation consists of bedded (.1 to 1m) brown grey to light grey, grey to white weathering, fine microcrystalline limestone. Locally on the Tah 19 Claim, very pure, white crystalline limestone is observed. There are no fossils evident. With the exception of minor disseminated pyrite, the limestone is apparently unmineralized.

Alteration of the limestone is generally restricted to the proximity of intrusive stocks and dikes. Along the edge of the Perry Lake stock, the limestone has been contact metamorphosed to marble. In addition, localized skarn has been observed in outcrop and float. The skarn is weakly mineralized.

The Quatsino limestone is extensively fractured. The fractures are commonly healed by calcite. Also, extensive intrusive activity into the limestone has occurred in the form of small stocks and dikes. These will be discussed later.

#### c) Parson's Bay Formation:

The Parson's Bay Formation is the least abundant member of the Vancouver Group recognized on the property. It is principally found in a easterly trending, southwest dipping narrow band between Lloyd and Green Creeks and along parts of Tahsis Mountain, (Tah 7 and 11 Claims). Two smaller exposures were observed on Tah 17 and 18. The lower contact with the Quatsino Limestone is very gradational. It can be difficult to differentiate it as a separate unit and is commonly mapped as a dirty limestone of the Quatsino Formation.

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While the upper contact with the Bonanza volcanics has not been observed, it appears to be relatively sharp, occurring over approximately 10 metres. Poor exposure, inaccessibility and the gradational lower contact have combined to make accurate mapping of this unit impossible. While it was not possible to establish a thickness for the unit during this examination, Hoadley (1953) has estimated a thickness of 150 to 300 metres.

On the property, the Parson's Bay Formation consists of two, more or less distinctive units which grade into each other. The lower unit is a grey weathering, black, impure limestone with local tuffaceous interbeds. Brachiopods (Halobia), which are common in the Parson's Bay Formation (Muller, et al, 1981), were observed in one location. This is overlain by thinnly bedded, tuffaceous argillites. Average thickness of the beds is approximately 5 cm. The argillites dip southwesterly at varying angles but are generally moderately dipping. They are commonly strongly weathered, gossanous and are quite soft and friable.

During helicopter reconnaissance, a fairly wide zone (12 to 15 metres) of southwest dipping, silty argillites were exposed in a cliff face. A ground traverse north of the exposure, along the ridge to the summit of Tahsis Mountain, discovered a well hornfelsed unit. It is interpreted that this contact metamorphosed zone of Parson's Bay Formation was caused by the Perry Lake Stock. The hornfels contains up to 10% pyrite and pyrrhotite, however, it does not contain any significant base or precious metal values.

#### II) BONANZA GROUP:

Bonanza Group rocks generally underlie the southwest part of the property. They are found in all or part of the Tah 10, 13, 14, 16, 17, 18, 20 and 21 mineral claims. The Bonanza volcanics conformably overlie the Parson's Bay Formation. The top of the Bonanza Group was not observed and has not been reported by previous writers. It was not possible to define an accurate thickness.

The Bonanza volcanics can be divided into two units: 1) the flow rocks and; 2) the fragmental rocks. The flow unit is by far the most common of the two found on the claim block. The flows are relatively thin, dark green to dark brown to black weathered basalts and andesites. Fresh surfaces are usually varying shades of green. Locally, dacitic flows are observed.

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The rocks are commonly vesicular with plagioclase and calcite amygdules. Epidote, chlorite and carbonate alteration and pyrite and pyrrhotite hydrothermal alteration are very common. The rocks are strongly fractured and moderately sheared. Minor interbeds or blocks, of light to medium grey limestone, are found included within the volcanics (eg. Tah 15). The fragmentals are less common on the property than the surrounding area. They consist of lapilli and ash tuffs and volcanic breccias (agglomerates) and are generally intercalated with the flow. The tuffs are generally less than 1 metre thick. They are light grey to cream colored, varying from very fine grained to angular fragments up to 6mm long. Locally, the tuffs are thinnly bedded with alternating dark and light bands. Commonly, the tuffs contain disseminated pyrite. The breccias usually consist of red fragments in a very fine grained, greenish groundmass. The fragments are often tuffaceous. Usual diameter of fragments is .2 to 1 cm, however, fragments up to 15 cm. in diameter have been observed.

#### III) INTRUSIVE ROCKS:

The numerous intrusive rocks on the property create a complex problem of geological interpretation. When discussing the intrusive rocks, it is best to divide them into two broad classes: 1) small stocks

> dykes and sills and minor irregular intrusions

The first problem is that recent age dating of the stocks has given them a Tertiary age which separates them from the Jura-Cretaceous Coast Intrusions. Muller (1981) has classed them as Tertiary Catface Intrusions. It is not possible to differentiate the classes of intrusions on the basis of field observations. The second and more complex problem is the mapping and interpretation of the second class of intrusives. The biggest problem occurs with the mafic dykes and the difficulty in recognizing the different, relative ages of the dykes and sills. There appears to be three groups of dykes and sills and irregular intrusives based on their relative age of intrusion. The oldest group is associated with the Bonanza volcanics and are feeder dykes for the volcanics. The second group is the most abundant and varied and comprises small dioritic bodies, mafic dykes, feldspar porphyry and felsite dykes. They are belived to be genetically related to the Catface Intrusives and the felsic dykes are believed to be late-stage differentiates. The last group comprises mafic dykes which appear to cut all the other younger rocks. However, they are not commonly observed on the property.

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One problem with the mafic dykes is their similarity in appearance and the subsequent difficulty in recognizing them in the absence of cross-cutting field relationships. Economically, they do not appear to be important. Therefore, out of necessity, the first two types of intrusions have been combined and the third type has been defined only where field relationships allow. Another problem is that they are locally very numerous and impossible to map individually on the scale of mapping.

1) Stocks

Two intrusive bodies on the property, the Perry Lake and the Santiago Stock, are classed as Catface Intrusions.

The Perry Lake Stock underlies part of the Tah 8, 9, 11 and 12 claims west of Malaspina Lake. It is orange-brown weathered granodiorite. Compositionally, it is 70% feldspar and quartz and 30% hornblende and biotite. It is intruded into the Vancouver and Bonanza Group rocks. The contact of the stock with the Karmusten is relatively sharp with a narrow chill zone and numerous granodiorite veinlets and inclusions. The contact with the Quatsino and Parson's Bay formations exhibits contact metamorphism. Locally, the limestone is marblized and skarnified. The skarn contains garnet, diopside, pyrite, pyrrhotite and chalcopyrite. Alteration is poorly exposed, with the skarn and marble observed in only one or two places. The Parson's Bay formation is extensively hornfelsed to a hard, grey, fine grained rock with up to 10% pyrite and pyhrrotite.

The Santiago Stock underlies the Tah 13 and 16 claims north of Santiago creek. It contains 60% large euhedral feldspar laths, 10% quartz and 30% hornblende and biotite. It is intruded into the Bonanza volcanics and contains large inclusions of the volcanics. The contact with the volcanics is hydrothermally altered with local silicification.

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#### 2) Irregular Intrusive Bodies, Dykes and Sills

Although this type of intrusive is found throughout the property, it appears to be most common in the southern part of the property. It is not directly related to the Santiago and Perry Lake stocks but is thought to be of the same relative age.

There are at least three small diorite to hornblende diorite intrusives exposed along or near the Tsowwin River underlying the Tah 18, 20, and 21 claims. It is possible that more exist but are not exposed. Of the three known only two are well exposed. They are approximately 800 metres in diameter. They vary from a dark green to black, pyritic medium grained diorite to a black and white hornblende diorite. Inclusions of relatively unaltered country rocks up to room size are common. They are cut by mafic and felsic dykes.

Numerous dykes and sills cut the Quatsino limestone, Bonanza volcanics and small intrusives, although they appear to most commonly intrude the limestones. They range in composition from fine grained diorite to feldspar porphyry to felsite. They occur together or separately and where cross-cutting relationships are observed, the felsites cut all other dykes and sills. The felsites are medium grained and comprise mainly feldspar and quartz with disseminated pyrite and are interpreted as late-stage differentiates. Economically, they are the most interesting as they often contain low-grade gold values. The diorites are fine grained, dark green to black and are very similar to the volcanic flows. They commonly occur as sub-parallel swarms, along bedding planes and fractures. Individual dykes and sills average .5m in width and usually have sharp, baked contacts.

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#### C) STRUCTURE:

The property is underlain by a monoclinal, southwest dipping succession of Vancouver and Bonanza Group rocks. This structure is obscured by faults and intrusions. The regional trend is cut off to the east of the property by the Muchalat Batholith and to the west, the Vancouver and Bonanza Group rocks are intruded along trend by Island Intrusives batholiths. The chaotic network of faults displayed in the property, and Vancouver Island, as a whole, can probably best be explained as the superposition of two or more fracture patterns, each with characteristic directions and of different age and origin, (Muller, 1981). On the property, three major trends of faulting can be identified. Also, there is extensive minor shearing.

The north-trending faults are the most prominent as evidenced by the Tahsis Fault along the inlet. They are thought to be early Mesozic in age. Muller suggests that this fault system was the result of a stress condition that prevailed during and/or directly after deposition of the Vancouver Group in Late Triassic to Early Jurassic time and was disrupted by Early Jurassic plutonism. The sense of these faults has not been established and may be a combination of strike and dip-slip movement.

The northwest trending set of faults are the most prominent on the property. The Perry River Fault lies along the eastern boundary of the property where it cuts the Karmutsen volcanics and forms a major valley. North of Malaspina Lake, it is offset by the northeast trending Malaspina Fault. Other northwest trending faults are found along Weymer and Green Creeks. It is not possible to observe the movement of the Perry River and Green Creek Faults. However, at Weymer Creek, a block of Karmutsen Formation south of the creek, has been uplifted with respect to the overlying Quatsino Formation. An approximate age of late Mesozoic to early Tertialy has been suggested by Muller.

The third fault system consists of generally short, northeasterly trending faults. These are believed to be associated with late Tertiary intrusive activity. On the property, the Perry Lake and Santiago stocks are interpreted to be related to this set of faulting. It is possible that the two faults are, in fact, the same fault. In addition to the three major fault systems, there are extensive shear sets. The majority of the rocks on the property are sheared and fractured to some extent; these features being most prominent in the south part of the property. Evidence of shearing is especially striking in the Quatsino formation and the Bonanza volcanics. It appears that two trends of the more felsic dykes correspond to shear directions. Whether the shear sets are related to the major fault systems or to localized intrusions is not known.

Extensive rock chip sampling has identified three zones of mineralization. Location and geochemical results of the rock chip samples are given in Plate III. One area in Tah 15, gave above background values of Cu, Au, and W. The mineralization appears to be localized and a result of contact with the Perry Lake Stock. Another area, Tah 19, yielded anomalous Au and Cu values. The mineralization appears to be related to the contact between a minor dioritic intrusive and the Bonanza volcanics. Consequent sampling did not repeat the anomalous values. The third area, by far the most interesting, is located on the Tah 18 Claims. At least 2 types of Au mineraliztion have been identified. The first type is found in felsite dykes up to 4 metres wide. They are orange-brown, very strongly weathered, fine grained quartz-feldspar rocks. There appears to be some clay alteration of the feldspars. They contain up to 5% finely disseminated pyrite and minor arsenopyrite. There is no visible gold. Geochemical analysis of several dykes average 500 ppb Au with a general range of 250 to 750 ppb Au. The highest value was 2500 ppb. The mineralization appears to be distributed consistently, with values repeatable within acceptable analytical ranges for gold. The dykes cut all lithologies and in one case there appears to be weak mineralization in the adjacent country rock ( $\leq 120$  ppb Au). Anomalous arsenic values and, to a lesser degree, antimony values are associated with the gold. Also, there appears to be narrow arsenic halos surrounding the dykes. There appears to be at least two directions of dykes, one set at 230° and the other at approximately 30°. In one instance, two dyke exposures, two kilometres apart, appear to be on strike with each other. The dykes appear to have been structurally emplaced as evidenced by moderate shearing and adjacent fault gouge. The other type of mineralizaion is found in narrow, 5 to 10 cm. thick, rusty weathered, sheared, cockscombed, quartz veins. They were observed in only two places. It was impossible to trace either vein more than 5 metres. They have a general northwest strike and east dip. One vein sample (NAB-15) assayed 3.59 oz/Ton Au and 2.30 oz/Ton Aq. Mineralization is not visible and it is felt that the gold and silver are present as tellurides.

#### E) SUMMARY AND CONCLUSIONS:

The terrain and vegetation encountered on the property severly inhibit exploration. Evaluation of the property, to date is mainly based on exposures along logging roads and cutovers and areas above tree-line. While this exposure is fairly extensive, there are critical areas that are very difficult to explore on surface. This is especially true of the south part of the property, where determination the of number and extent of mineralized dikes and veins is severely limited. However, work to date has been successful in delineating a zone of interesting low grade mineralization. Now that an understanding of the property's geology and geochemistry has been established, future exploration can proceed on the delineated zones.

Although the mineralization discovered to date is not of the type that the program was designed to find, the width and length of the known lowgrade zones suggests that other zones may exist and further work is warranted. This should be done in two stages with the second stage dependent upon encouraging results from the first stage.

#### F) RECOMMENDATIONS:

Results to date have been favorable and further exploration is warranted. The following recommendations suggests a possible exploration approach than can be implemented.

1) The whole property has had sufficient assessment work performed to hold it in good standing to March 10, 1983. It is recommended that the entire claim group be held until the first stage program has been completed. At that time, consideration might be given to reducing the size of the claim block.

2) Several heavy mineral anomalies have not yet been explained, especially along the western side of the property. The most notable of these are the anomalies in Weymer Creeek. The headwaters of the creek should be further explored in an attempt to discover the source of the anomalies. The terrain is rugged and the vegetation is thick. Therefore, strong and experienced individuals should be used to carry out this work. 3) The first stage program should concentrate on further definition of mineralized structures and known felsic intrusives using geochemistry, geological mapping and prospecting. A better structural knowledge of the dykes and veins should significantly aid in discovering additional zones. Extensive geochemical sampling of all felsic intrusives, combined with the structural data, should help to better define favorable trends. This first stage should be relatively inexpensive and should comprise approximately three weeks work for a four man crew.

4) The second stage program is dependent upon encouraging results being obtained in the first stage. This stage would be considerably more expensive and would entail a major exploration commitment. It would consist of establishing surveyed grids for detailed soil sampling, magnetometer, EM and elevation surveys. Positive results would be followed by a trenching and drilling program in 1983. Hoadley, J.W., 1953:

Geology and mineral deposits of Zeballos - Nimpkish area, Vancouver Island, British Columbia; Geological Survey of Canada, Memoir 271,82p.

Muller, J.E.; Nortcote, K.E.; Carlisle, D., 1974: Geology and mineral deposits of Alert Bay- Cape Scott map-area, Vancouver Island, British Columbia; Geological Survey of Canada, Paper 74-8, 77p.

Muller, J.E.; Cameron, B.E.B.; Northcote, K.E., 1981: Geology and Mineral Deposits of Nootka Sound Map-Area, Vancouver Island, British Columbia; Geological Survey of Canada, Paper 80-16, 53p.

White, G.D.; Chabot G.E., 1981: Report on a Reconnaissance Geochemical Survey Conducted on the Tah 1 to 19 Claims; Assessment Report.

APPENDIX I

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STATEMENT OF EXPENDITURES

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Support Costs - Geologic Mapping and Sampling Program - Aug. & Sept. 1981

I Mobilization and Demobilization

July 29, 1981	Kamloops, B.C Gas Kamloops, B.CU-Haul Rental Vancouver, B.C. Meals & Room (2 people) Subtotal	\$ 40•41 224•87 <u>151•21</u> \$414•49
July 30, 1981	Vancouver - Ferry Victoria - Meals Subtotal	\$ 29.00 <u>73.85</u> \$102.85
July 31, 1981	Campbell River, B.C Gas Campbell River, B.C Meals Subtotal	\$ 59.50 <u>15.45</u> \$ 74.95
August 2, 1981	Golden, B.C Gas - Meals Subtotal	\$ 37.27 <u>23.40</u> \$ 60.67
August 3, 1981	Field, B.C Gas Revelstoke, B.C Gas Yale, B.C Gas Meals (3 people) Subtotal	\$ 32.33 39.38 32.00 <u>99.10</u> \$202.81
August 4, 1981	Vancouver - Ferry Nanaimo - Gas Revelstoke - Gas Revelstoke - Room Meals (5 people) Subtotal	\$ 19.00 26.00 22.85 29.00 <u>75.42</u> \$172.27
August 5, 1981	Boston Bar - Gas North Vancouver - Gas Vancouver - Ferry Campbell River - Room Meals Subtotal	\$ 21.00 21.00 19.00 43.50 <u>27.30</u> \$131.80
August 6, 1981	Gold River, B.C Room Meals Subtotal	\$ 38.00 <u>12.15</u> \$ 50.15
August 21, 1981	Nanaimo - Ferry Vancouver - Rooms Vancouver - Gas Subtotal	\$ 14.50 61.56 <u>39.60</u> \$115.66

August 29, 1981	Nanaimo - Ferry    \$ 14.50      Vancouver - Room    61.56      Meals    45.60      Vancouver - Gas    43.00      Subtotal    \$ 164.66
August 30, 1981	Revelstoke - gas    \$ 48.00      Meals       Subtotal    \$ 77.00
September 1, 1981	Vancouver - Gas \$ 43.60 Room 61.56 Meals 47.83 Subtotal \$ 152.99
September 19, 1981	Tahsis - Gas    \$ 40.00      Nanaimo - Ferry    14.50      Pemberton - Gas    45.98      Subtotal    \$100.48
September 23, 1981	Tahsis - Gas (2 vehicles)    \$ 73.00      Nanaimo - Ferry    14.50      Nanaimo - Room    39.60      Vancouver - Room    62.40      Meals    53.00      Subtotal    \$242.50
September 24, 2981	Nanaimo - Ferry \$ 14.50 Subtotal \$ 14.50 TOTAL MOBILIZATION AND DEMOBILIATION \$2,196.23
II Accommodiations & Me July 31 to August 12	
August 12 to August	28, 1981 Tahsis Motel 33 single rooms @ \$31.80/room \$1,049.40 34 double rooms @ \$37.10/room 1,262.40 Meals SUBTOTAL \$3,468.97

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September 16 to September 23, 1981 Tahsis Motel, Tahsis, B.C. 13 single rooms @ \$31.80/room..... \$413.40 7 double rooms @ \$37.10/room..... 259.70 412.30 Meals ..... Subtotal ..... \$1,085,40 August 16, 1981 Meals for 8..... \$ 49.05 Meals: August 17, 1981..... 17.05 August 23, 1981..... 23.20 Subtotal.....\$ 89.20 Total Meals and Accommodations \$6,528.37 III Fuel August 6, 1981 Tahsis..... \$ 38.00 August 7, 1981 Tahsis..... 43.00 August 8, 1981 Tahsis (mixed gas) .. 20.00 August 11, 1981 Gold River ..... 58.23 83.25 August 12, 1981 Tahsis..... August 13, 1981 Tahsis..... 80.71 August 20, 1981 Tahsis..... 73.00 63.00 September 18, 1981 Tahsis..... TOTAL..... \$459.19 IV Groceries August 2, 1981 Tahsis..... \$ 15.86 49.03 August 10, 1981 Tahsis..... August 14, 1981 Tahsis..... 21.91 August 19, 1981 Tahsis..... 42.86 TOTAL..... \$129.66 V Auto Leasing 1 Bronco 1.5 mo x 710/mo..... \$1,065.00 1 4x4 pickup 1.0 mo x 600/mo..... 600.00 1 4x4 crew cab 1.0 mo x 800/mo... 800.00 TOTAL..... \$2,465.00 Campbell River, B.C. 2 pairs VI July 31, 1981 caulk boots..... \$117.90 Tahsis, B.C. Boat Moorage (1 mo) ... 15.00 August 1, 1981 Campbell River, B.C. 3 pairs August 4, 1981 193.19 caulk boots ..... Campbell River, B.C. 1 pair August 6, 1981 caulk boots..... 62.90 55.45 Tahsis, B.C. Brake Repair ..... August 10, 1981 24.00 August 11, 1981 Bus samples to Vancouver..... August 19, 1981 Tahsis Transport - sample to Vancouver-Courier Geochem results from Vancouver to Tahsis 9 x \$15... 135.00 TOTAL..... \$650.44

VII	Report Preparation & Writing 3 weeks @\$500/week\$15,00.00
	Total Support Costs \$2,196.23 + \$6,528.37 + \$459.19 + \$129.66 +\$2,456.00 + \$650.44 + \$1,500.00 = \$13,928.89
Man-day Support Cost	= <u>Total Support Cost</u> Total Man-days
	= <u>\$13,928.89</u> =\$132.82/man-day 104.87

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#### 1) Man-Day Costs

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This cost is a daily rate achieved by taking monthly salary and bonus and dividing by days worked per month on the basis of a 6-day work week.

George Chabot	\$122.73/day
N. Ball	93.98/day
P. Adams	93.98/day
G. Graf	80.48/day
J. Hayhurst	83.08/day
B. Blair	75.29/day
E. Masarsky	85.67/day
G. White	94.50/day
N. Debock	150.00/day
B. Girling	92.50/day
B. Smee	97.22/day
Total\$	1,056.05/man-day

This daily rate is multiplied by man-days per claim to arrive at man costs expended per claim.

ii) Helicopter Costs

The hourly rate of the helicopter is \$375.00/hour excluding fuel. Based on 26 gallons of fuel per hour, the cost of fuel is \$70.02/hour. Total cost per hour is \$445.02.

iii) Analysis Costs Actual analysis costs from Bondar-Clegg and Company are:

Cu, Pb, Zn, Mo, Ag	\$ 4.75
W	3.75
As	2.90
Sb	3.75
Hg	3.50
Au	5.25
Retention and Handling of Rejects	•20
Total	\$ 24.15

APPENDIX II

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GEOCHEMICAL RESULTS

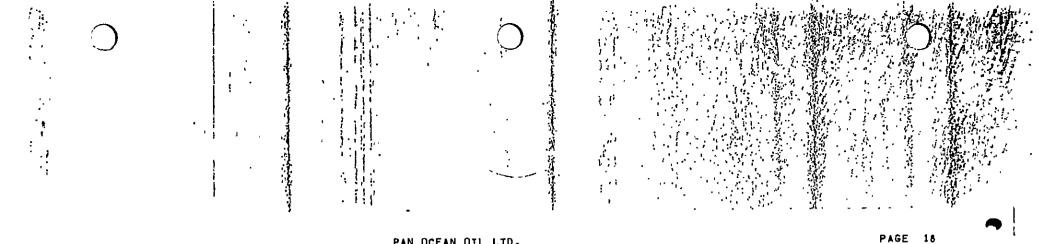
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	NO. OF	MAN-DAY	MAN-DAY	HELICOPTER	ANALYSIS	TOTAL EXPENDED
CLAIM	MAN-DAYS	SUPPORT	COSTS	COSTS	COSTS	ON CLAIM
		COSTS				·
<b>T</b> 1 0	2		175 70	151 01	24.15	616.86
Tah 2	2	265.64	175.76	151.31		811.96
Tah 3	3	398.46	266.88	74.17	72.45	
Tah 4	11.5	1,527.43	997.99	637.86	338.10	3,501.38
Tah 5	3.5	464.87	320-21	667.53	72.45	1,525.06
Tah 6	6	796.92	839.95	151.31	217.35	2,005.53
Tah 7	3	398.46	262.99	163.17	96.60	921.22
Tah 8	4.17	553.86	410.44	630.44		1,594.74
Tah 9	3.67	487.45	347.60	151.31	24.15	1,010.51
Tah 10	3	398.46	295.71	163.17	48.30	905.64
Tah 11	4.67	620.27	408.51	259.59	458.85	1,747.22
Tah 12	2	265.64	174.46	74.17	265.65	779.92
Tah 13	<b></b>					
Tah 14	12.5	1,660.25	1,575.93	519.19	241.50	3,996.87
Tah 15	5.17	686.68	548.44	148.34	313.95	1,697.41
Tah 16	5.17	686.68	495.67	298.16	241.50	1,722.01
Tah 17	4.34	576.43	416.84	298.16	531.30	1,822.73
Tah 18	14.34	1,904.64	1,735.98	74.17	1,497.30	5,212.09
Tah 19	10.0	1,328.20	585.18	74.17	458 85	2,446.40
Tah 20	3.67	489.45	315.99	74.17	410.55	1,290.16
Tah 20 Tah 21	3.17	421.04	530.06	74.17	410.55	1,025.27
TOTAL	104.87	13,930.83	10,704.59	4,684.56	5,313.00	34,632.98

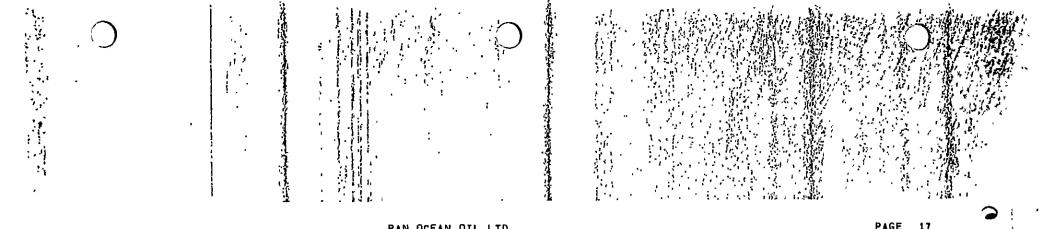


#### PAN OCEAN OIL LTD.

## DISSEMINATED GULD - VANCUUVER ISLAND PROJECT - 1981 FIELD SEASON

#### ROCK, CHIP, FLOT & TALS GEOCHEM SAMPLES

SAMPLE NUMBER	CLAIM		FORM-	DUT EXPS	CROP OUAL	OXIDT TYPE	N MINER	Ā	ALTER- ATION	REPT NUM.	CU PPM	PB PPM	ZN PPM	M0 PPM	AG PPM	AU PP8	AS PPM	SB PPM	PPM	BA PPM	HG PPB	REMARKS
EBM0015 EBM0016 EBM0017 EBM0019 EBM0020 EBM0021 PJA0006 PJA0007	TAH6 TAH6 TAH6 TAH6 TAH6 TAH6 TAH6 TAH6		X ARM K ARM F F RR	GOOD GOOD FAIR GOOD GOOD GOOD FAIR FAIR	FRES FRES MWTH MWTH	FERR FERR FERR NONE FERR	Y PYRT Y PYRT Y PYRT Y PYRT Y PYRR Y PHR Y PHR FE	ຨຨຨຨຨຬຨຬຨຬ	CAR2 CAR1 Sil2 Sil2 CAR1 CAR1	999999999555 888888884444 888888884444	991 13206 13206 178 178	N-Q-NQ	7 40706616 7 40706616	214111122	444MMNNNNN 00000000000000000000000000000	RWWWWWWWWWWWWWWWW	7211113662	111111111111111111111111111111111111111	ทรงทุกงหุดงก		750055500000 357	MFICVOL ANDTVOL VEIN ANDVOLC MFCVOLC MECVOLC



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DISSEMINATED GOLD - VANCOUVER ISLAND PROJECT - 1981 FIELD SEASON															
· · · · ·	ROCK, CHIP, FLOT & TALS GEOCHEM SAMPLES														
SAMPLE SAMP ROCK FORM→ NUMBER CLAIM TYPE TYPE ATIUN	NUTCROP DATION MINERL ALTER REPT CU PB 7N MO AG AU AS SB W BA HG	REMARKS													
	GOOD FRES FERR W S 2445 151 63 30 1 8.3 15 3 6 3 78 MA	FCVOL													
PJA0008 TAHS CHIP VOLC KARM	GOOD FRES FERR W      S      2445      151      63      30      1      0.2      15      2      8      2      70      MA        GOOD FRES FERR M      N      2445      52      1      16      0.2      3      2      1      2      80      CAI        I FAIR MWTH NONE      N      2445      40      1      20      1      0.2      3      2      1      2      30        I FAIR MWTH NONE      N      2445      15      1      26      2      0.2      3      2      1      2      30      1      2      30      1      2      30      1      2      30      1      2      30      1      2      30      1      2      3      2      1      2      30      1      2      1      2      3      1      4      1600      1      2      0      2      3      2      1      4      1600      1      1      1      1      1      1	A D <b>4</b> N													
PJA0010 TAHS CHIP	TATA BATH FEAR A 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4														

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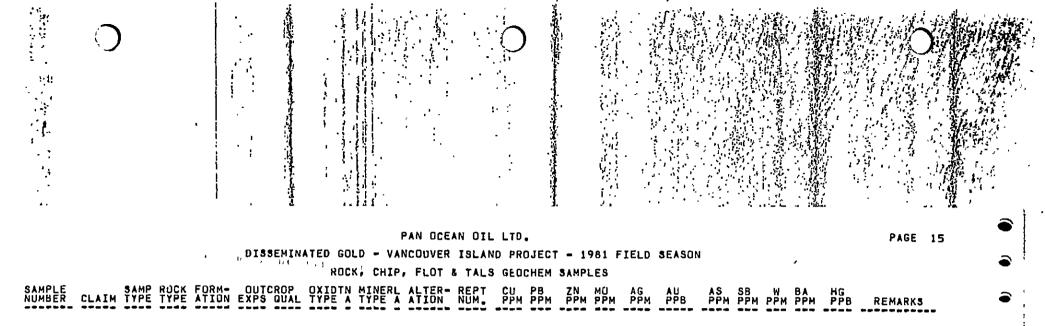
PAGE 16

#### PAN OCEAN OIL LTD.

#### DISSEMINATED GOLD - VANCOUVER ISLAND PROJECT - 1981 FIELD SEASON

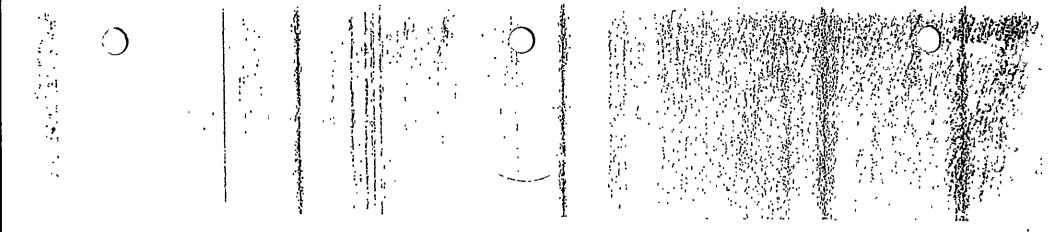
#### ROCK, CHIP, FLOT & TALS GEOCHEM SAMPLES

SAMPLE NUMBER	CLAIM			FORM-		CROP QUAL	DXIDTN TYPE A	MINERL TYPE A	ALTER-	REPT NUM.	CU PPM	PB PPM		MO PPM	AG PPM	AU PPB	AS PPM	SB PPM	PPM	BA PPM	HG PPB	REMARKS
GCG0001 GCG0002 GCG0003 NAB0059 NAB0060 NAB0061 NAB0062	ТАН4 Тан4 Тан4 Тан4 Тан4 Тан4	CHIP CHIP	FELS FELS ANDS			MWTH HWTH HWTH HWTH HWTH HWTH	NONE NONE FERR S FERR M FERR S	PYR S PYR S	CHL1	2839 2839 2839 2839 2839 2839 2839 2839	7 40 8 7 23 21 54 67	5349444	50 105 2525	4144221	222224MM	พงพุทธงา	911111	111111	้างกระการ		35	IMPURE DIKE? SHEARED SHEABED
NAB0063 NAB0064 NAB0065 NAB0066 NAB0066 NAB0067 PJA0028 PJA0029	TAH4 TAH4 TAH4 TAH4 TAH4 TAH4 TAH4 TAH4	CHIP CHIP CHIP CHIP CHIP CHIP	TUFF FELS ANDS VOLC VOLC		GOOD FAIR FAIR	MWTH HWTH HWTH MWTH MWTH HWTH	FERR S FERR M		CHL1 ChL3	2839 28399 28399 28399 28399 28399 28399 28399 28399	67 65 144 101 22	5445864	4500 482 4500 4500 4500 4500 4500 4500 4500 450	2111262	0 0 4 0 4 0 4 0 3 0 2 3 0 3 0 3 0 3	ичичичи	14 1 38 75 28	1111111	กงงงงงง		20	FELSIČ Impure RDADFIL



E8M0023 TAH3 CHIP NAB0052 TAH3 CHIP ANDS NAB0053 TAH3 CHIP ANDS NAB0053 TAH3 CHIP ANDS NAB0054 TAH3 CHIP BSLT	GOOD MWTH FERR M PYRT S KRMT GOOD FRES PYR S KRMT NONE HWTH FERR S SULP H KRMT EXCL MWTH N	2839 470 2839 92 2839 2530 CHL2 2839 231	2 43 1 0.2 20 1 0.2 5 100 1 1.6 2 65 1 0.3	3 4 3 1 20 1 3 1	1 3	10 10 Amygd 110 Amygd 10 Massive
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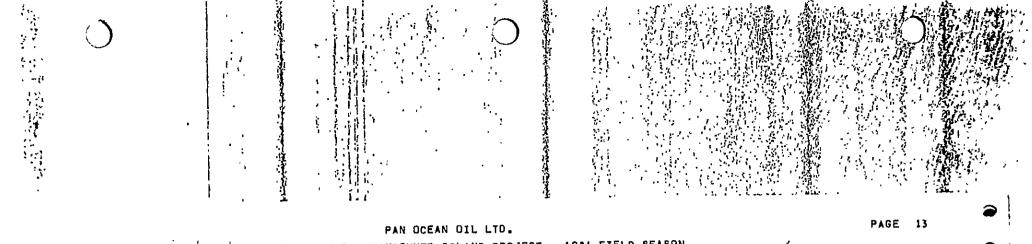


PAGE 14

## PAN OCEAN DIL LTD. Disseminated Gold - Vancouver Island Project - 1981 Field Season

## ROCK, CHIP, FLOT & TALS GEOCHEM SAMPLES

SAMPLE NUMBER	CLAIM	SAMP TYPE	RUCK	FURM- ATION	OUT EXPS	CROP QUAL	OXIDTN TYPE A	MINERL TYPE A	ALTER- ATION	REPT NUM.	CU PPM	PB PPM	ZN PPM	M0 PPM	AG PPM	AU PPB	AS PPM	SB PPM	РРМ 	8 A PPM	HG PPB	REMARKS
EBH0028 EBH00331 EBH00333 EBH00333 EBH00333 EBH00334 PJA0048 PJA0048 PJA0048 PJA0048 PJA0055 PJA00552	TAH21 TAH21 TAH21 TAH21 TAH21 TAH21 TAH21 TAH21 TAH21 TAH21 TAH21 TAH21 TAH21 TAH21 TAH21 TAH21 TAH21	CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC	TUFF VOLCE LMST VOLCC VOLCC VOLCC	QUAT QUAT BONZ BONZ BONZ	GOODDODDDDD GOODDDDD GOODDDD GOODDD GOODDD FAIR FAIR FAIR FAIR FODOR POODR	74277777777777777777777777777777777777	NONE NONE NUNE NONE FERR M	PYRTSSSH YRTSSSH YRTSSSH PARTTSSSH PYRTSSSH PYRTSS F F F	SIL1	9999999959999999999 585858585858588588 885858585	4449589875288660653 515288660653	144424M1446664665	78350080 157605500665560 1110953 1311953 1311953 1311953 1311953 1311953 1311953 1311953 1311953 1311953 1311953 1311953 1311953 1311953 1311953 1311953 1311953 1311953 1311953 1311953 1311953 1311953 1311953 1311953 1311953 1311953 1311953 1311953 1311953 1311953 1311953 1311953 1311953 1311953 1311953 1311953 1311953 1311953 1311953 1311953 1311953 1311953 1311953 1311953 1311953 1311953 1311953 1311953 1311953 1311953 1311953 1311953 1311953 1311953 1311953 1311953 1311953 1311953 1311953 1311953 1311953 1311953 1311953 1311953 1311953 1311953 1311953 1311953 1311953 1311953 1311953 1311953 1311953 1311953 1311953 1311953 1311953 131110 1311953 131110 1311953 131110 131110 1311953 131110 131110 131110 131110 131110 131110 131110 131110 131110 131110 131110 131110 131110 131110 131110 131110 131110 131110 131110 131110 131110 131110 131110 131110 131110 131110 131110 131110 131110 131110 131110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 13110 131100000000	4107110713701030835	00000000000000000000000000000000000000	๚๚๚๚๚๚๚๚๚๚๚๚๚	841333447652736115 21736115		<u>ุณพญญพญพฎพพพพพพพพพพพพพพพ</u> พพพพพพพพพพพพพพพพ		650 1000 1400 1400 15	GABBRO CONTACT DIORITE CWERT FELSITE DIORITE LAPILLI CARBI



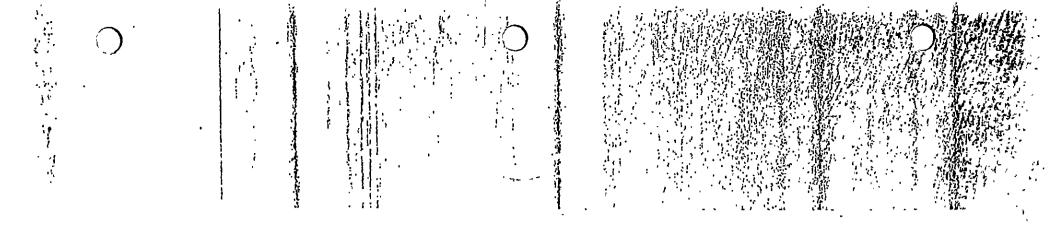
DISSEMINATED GOLD, -, VANCOUVER ISLAND PROJECT - 1981 FIELD SEASON

ROCK, CHIP, FLOT & TALS GEOCHEM SAMPLES

SAMPLE NUMBER	CLAIM	SAMP TYPE	ROCK TYPE	FORM- ATIUN	OUTO EXPS	QUAL	DXIDTN TYPE A	MINERL TYPE		ALTER- ATION	REPT NUM.	СU РРМ	PB PPM	ZN PPM	MD PPM	AG PPM	AU PPB	PPM	SB PPM	PPM	BA HG PPM PPB	REMARKS	
NAB0068	TAH2	СНІР	BSLT		GODÚ	митн	NONE	ı	N	CHL 3	2839	135	4	118	2	0.5	5	3	1	2	75	CALVEIN	

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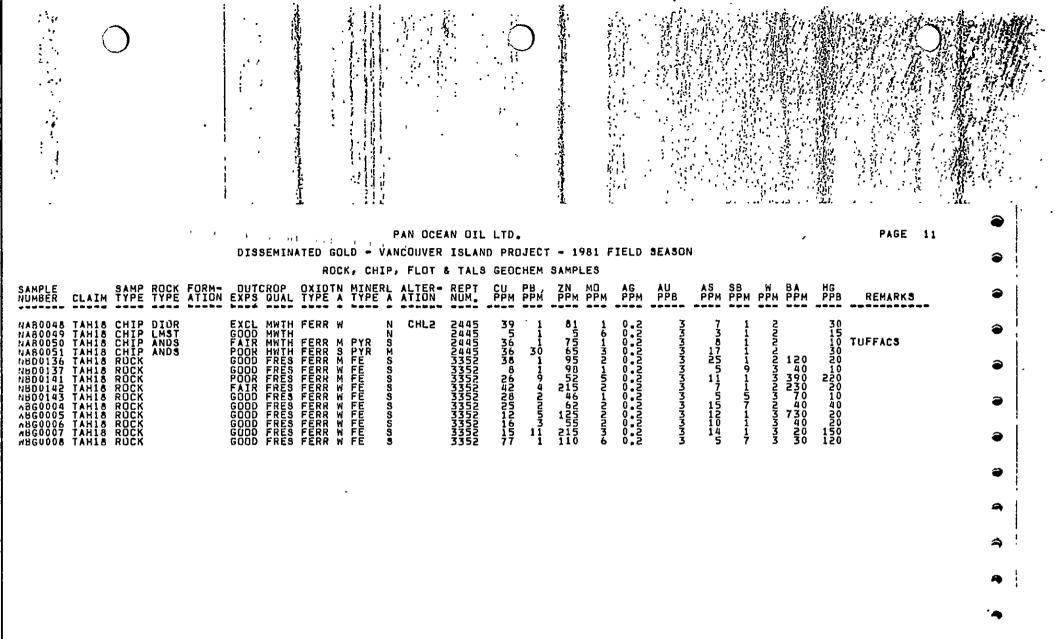
## PAN OCEAN OIL LTD.

## PAGE 12

#### DISSEMINATED GOLD - VANCOUVER ISLAND PROJECT - 1981 FIELD SEASON

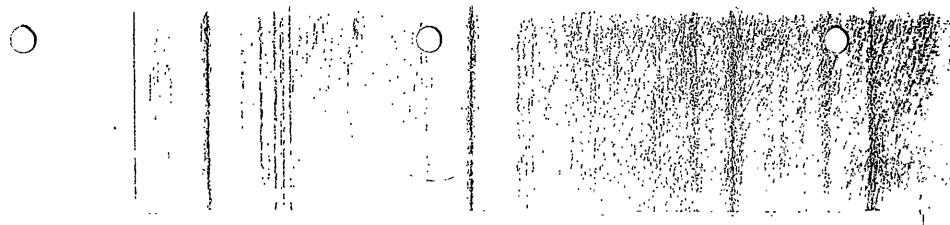
## ROCK, CHIP, FLOT & TALS GEOCHEM SAMPLES

SAMPLE NUMBER	CLAIM	TYPE	TYPE	FORM- ATION	EXPS	CROP QUAL	OXIDTN TYPE A	TYPE	L ALT	ER- RE ON NU			ZN PPM	MO PPM	AG PPM	AU PP8	AS PPM	SB PPM	PPM	8 A P P M	HG PPB	REMARKS
E8M0001 E8M0002 E8M0003 E8M0003 E8M0003 E8M0003 E8M0003 E8M0003 E8M0003 E8M0003 E8M0003 E8M0003 E8M0003 E8M0003 E8M0003	TAH19 TAH19 TAH19 TAH19 TAH19 TAH19 TAH19 TAH19 TAH19 TAH19	CHIP CHIP CHIP CHIP CHIP CHIP CHIP CHIP	VOLC ,	,	EXCL GOOD SUBC FAIR GOOD EXCL EXCL FAIR	MWTH MWTH MWTH MWTH FRES FRES FRES HWTH	FERR W FERR W FERR W FERR W	PHYR PYRT PYRT PHYR	N N S WT N S N S S	24 24 24 24 RD 24	45 10 445 4 445 5 445 10 445 14 455 14 455 2 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	5 5 6 1 0 1 2 1	110 1309 1597 15399 10750 10750	1161211121	00000000000000000000000000000000000000	33330 9905 850 10537	129646266427	111111111111111111111111111111111111111	ุ่งกระบรรรร	,	30 40 60 35	VOLC CRBVEIN MINZONE CTCZONE SKARN HORNFLS MAFCVOL



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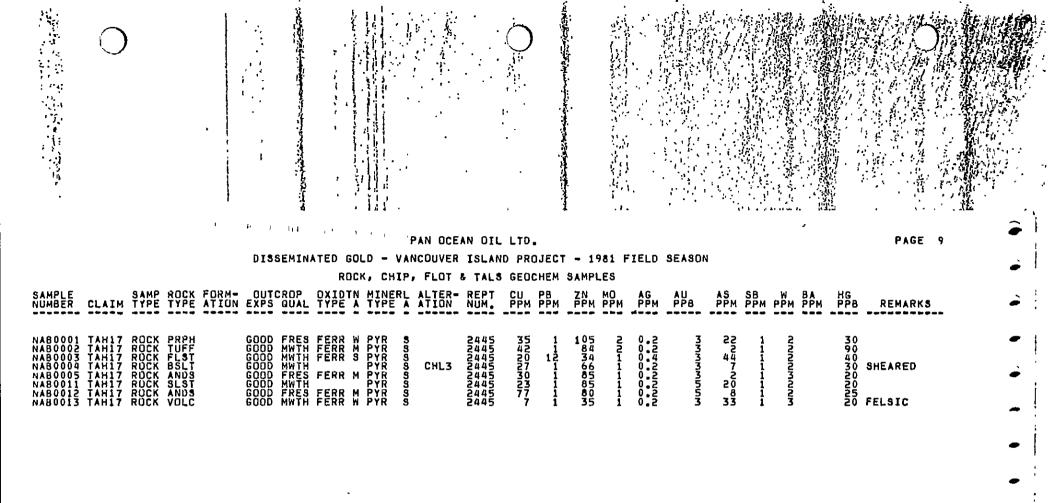
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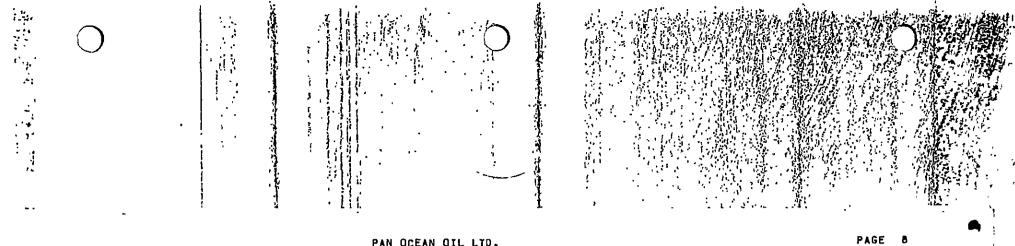
# PAGE 10

# DISSEMINATED GOLD - VANCOUVER ISLAND PROJECT - 1981 FIELD SEASON ROCK, CHIP, FLOT & TALS GEOCHEM SAMPLES

SAMPLE CLAIM TIPE TYPE FURNE OUTFORDE DUTOROPE DUTOROPE DITIES OUT TYPE A TIPE A ATTENDA ATTEN
11200055    1410    1400    14    2400    200    600    600    600    600    600    600    600    600    600    600    600    600    600    600    600    600    600    600    600    600    600    600    600    600    600    600    600    600    600    600    600    600    600    600    600    600    600    600    600    600    600    600    600    600    600    600    600    600    600    600    600    600    600    600    600    600    600    600    600    600    600    600    600    600    600    600    600    600    600    600    600    600    600    600    600    600    600    600    600    600    600    600    600    600    600    600    600    600    600    600    600    600    600    600    600    600    600    600    600    600
1AB0043    TAH18    CHTP    DIOR    EXCL    FRES    PYR    2445    32    41    86    2    5    24    1    2    30    MGNTC      1AB0044    TAH18    CHIP    ANDS    FAIR    MWTH FERR    M    CHL3    2445    39    1    105    1    0    2    3    12    1    2    30    CONTACT      1AB0045    TAH18    CHIP    BSLT    FAIR    HWTH    N    2445    37    1    60    3    0    2    3    11    1    2    30    CONTACT      1AB0045    TAH18    CHIP    BSLT    FAIR    MWTH    N    2445    3    1    60    3    0    2    3    11    1    2    30    XENOLTH      1AB0045    TAH18    CHIP    BSLT    FAIR    MWTH    FERR    2445    3    1    55    1    0    2    3    7    1    2    20    SILIC       H    FERR



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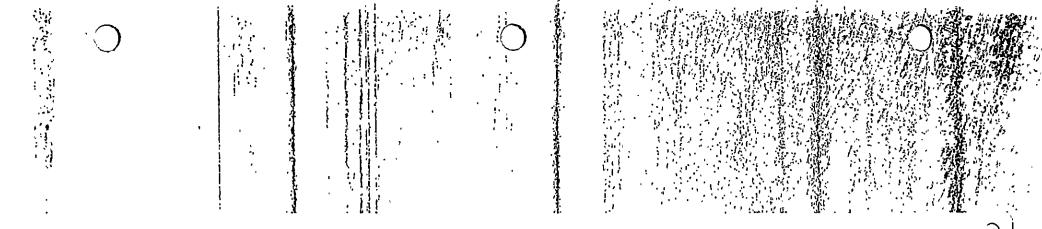


### PAN OCEAN GIL LTD.

# DISSEMINATED GOLD - VANCOUVER ISLAND PROJECT - 1981 FIELD SEASON

### ROCK, CHIP, FLOT & TALS GEOCHEM SAMPLES

SAHPLE Number CLA	SAMP IN TYPE	ROCK Type	FORM- ATIUN	OUT: Exps	QUAL	OXIDT TYPE	N MIN	ALTER- ATION	REPT NUM.	CU PPM	PB PPM	ZN PPH	MD PPM	AG PPM	AU PPB	AS PPM	SB PPM	PPM	BA PPM	HG PPB	REMARKS
PJA0023 TAH PJA0024 TAH PJA0025 TAH PJA0025 TAH PJA0026 TAH	16 CHIPPP 16 CHIPPP 16 CCHIPPP 16 CCHIPP 16 CCHIPP 16 CCHIPP 16 CCHI 16 CCHI 1	MONZ VOLC VOLC VOLC VOLC VOLC VOLC VOLC VOLC	BONZ BONZ BONZ BONZ BONZ BONZ BONZ BONZ	GOOD POOR POOR FOOD FOOD FAIR FAIR FAIR	MWTH MWTH MWTH HWTH MWTH MWTH HWTH FRES MWTH	FERR NONE NONE FERR NONE NONE	S FE SFE	 HNBL HNBL	995599999999 884488888888888888888888888	98790626454 3790526454 1542	1071182438468	644500500005 1 1027	150-10004M0M	4400744499444 00000000000000000000000000	งพรงการรุงการ 1 8 8 8 8 8	3865383205 700588 28	1 1 20 1 15 15 15	<u> </u>	,	10 10 20	HDTL3 HDTL3



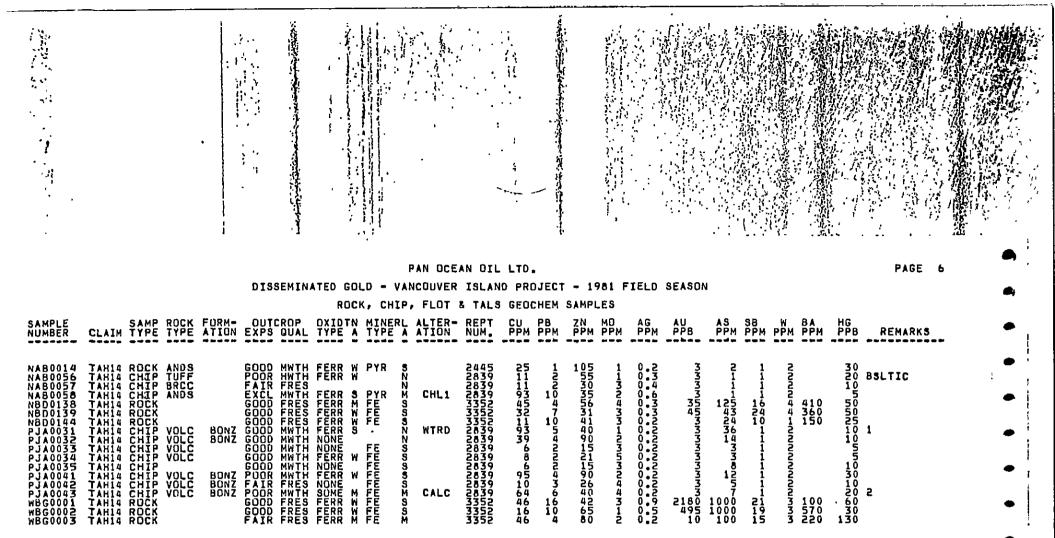
#### PAN UCEAN OIL LTD.

PAGE 7

### DISSEMINATED GOLD - VANCUUVER ISLAND PROJECT - 1981 FIELD SEASON

### ROCK, CHIP, FLOT & TALS GEOCHEM SAMPLES

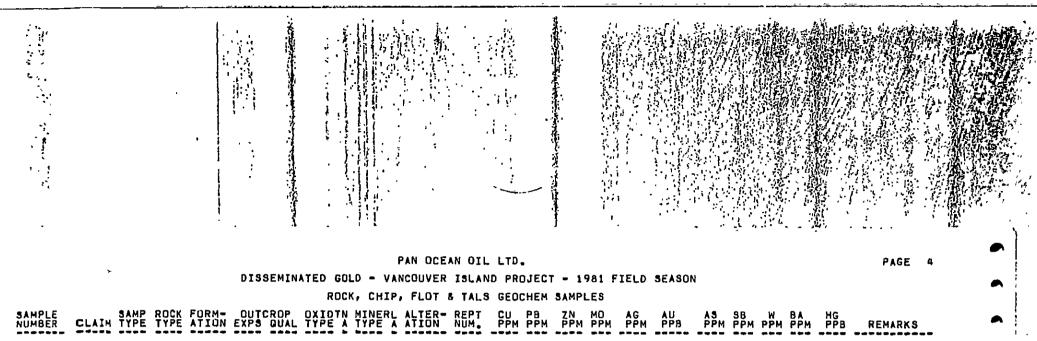
SAMPLE NUMBER	CLAIM		FORM+ ATION		QUAL	OXIDT TYPE	MINE TYPE	RL	ALTER-	REPT NUM.		PB PPM	ZN PPM	MO PPM	AG PPM	AU PP8	AS PPM	SB PPM		BA PPM	HG PPB	REMARKS
EBM0037 EBM00381 PJA0003 PJA0002 PJA0004 PJA0004 PJA00052 PJA00654 PJA00654 PJA00656	TAH15 TAH15 TAH15 TAH15 TAH15 TAH15 TAH15 TAH15 TAH15 TAH15	VOLC VOLC LMST LMST VOLC VOLC	QUAT QUAT QUAT QUAT QUAT QUAT QUAT	G000 FAIR FAIR FLOT G000 FAIR FAIR FAIR	HWTH HWTH MWTH MWTH MWTH MWTH HWTH MWTH	FERR Y NONE NONE NONE NONE FERR Y FERR Y	FE FE FE	S	CARB CARB CARB CARB	99955559999 333444448888 888444448888 888444448888 888444448888 888444448888 8888	4306724 1167242651 44265167	403111316556	13095446905205 155446905205		4 MNNNNN NNNMM 00000000000000000000000000	การสุดเกิดเป็นเป็นเป็นเป็นเป็นเป็นเป็นเป็นเป็นเป็น	500 1205 225 205 205 205 205 205 205 205 205	181111111111111111111111111111111111111	งกุณฑกกุลกุลกุล	,	6500 13205 1255 1205 1205 1205 1205	FELSITE 1 1 1



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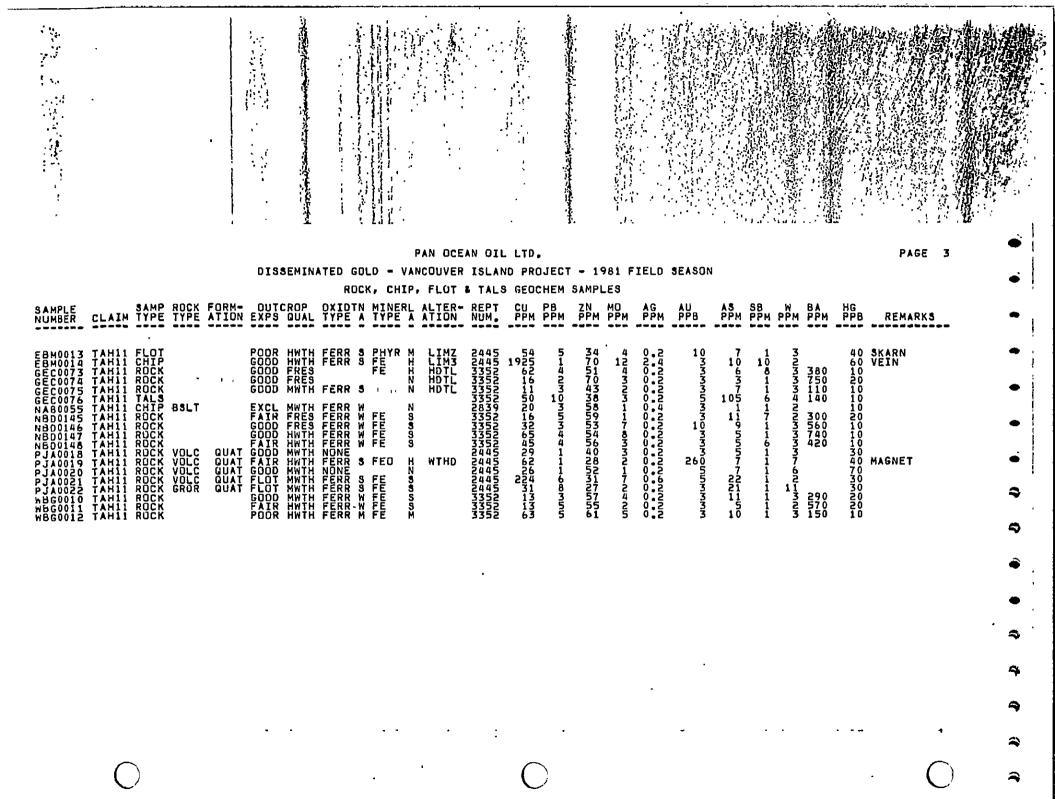
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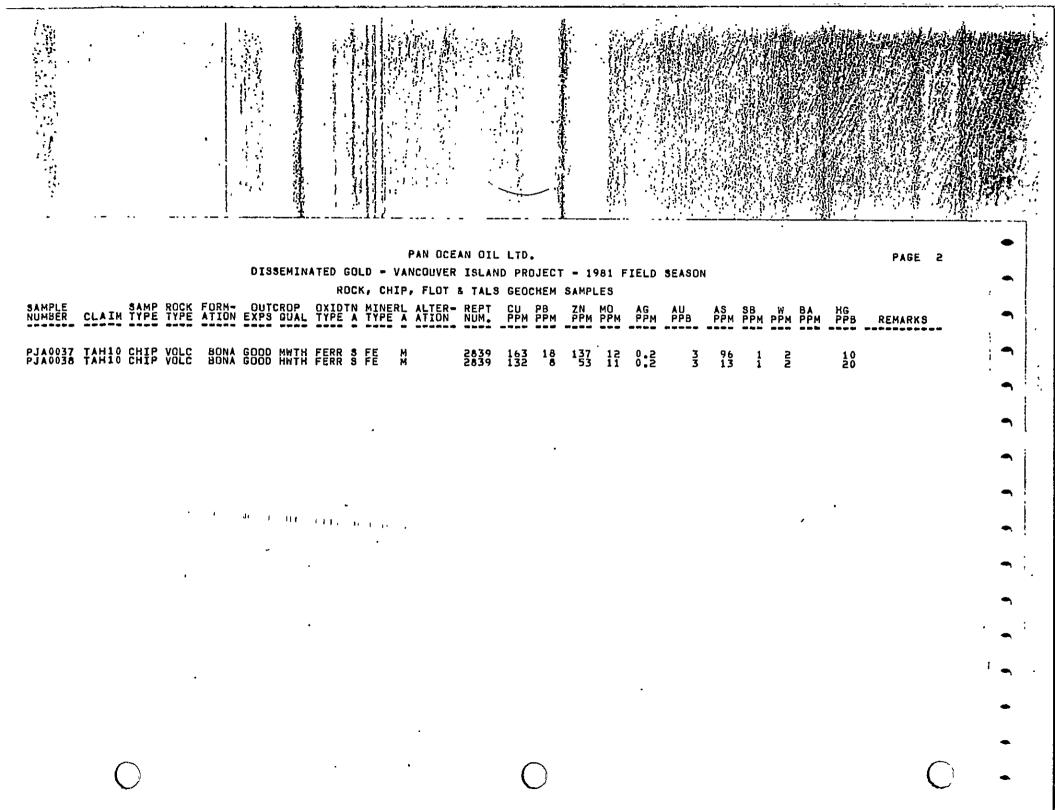
	DISSEMINATED GOLD - V	PAN OCEAN DIL LTD. Ancouver Island Project - 19	81 FIELD SEASON	PAGE 5
SAMPLE SAMP RO Number Claim Type Ty	ROCK, CHI CK FORM- OUTCROP OXIDIN MINER PE ATION EXPS QUAL TYPE A TYPE	P. FIDT & TALS CERAUCH ALVEST	~~	Э
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### STATEMENT OF QUALIFICATIONS

I, George E. Chabot of Calgary, Alberta, hereby certify that:

- I am a geologist residing at G-7519 10th St. N.W., Calgary,
  Alberta and am currently employed by Pan Ocean Oil Ltd. of 300
  5th Avenue S.W., Calgary, Alberta.
- I am a 1977 graduate of Lakehead University, Thunder Bay, Ontario with a B.Sc. Degree in Honours Geology.
- I have been actively engaged in the practice of mineral exploration since graduation.
- I have supervised and performed the work described in this report.

vger E' Chabot

George E. Chabot Pan Ocean Oil Ltd.

### STATEMENT OF QUALIFICATIONS

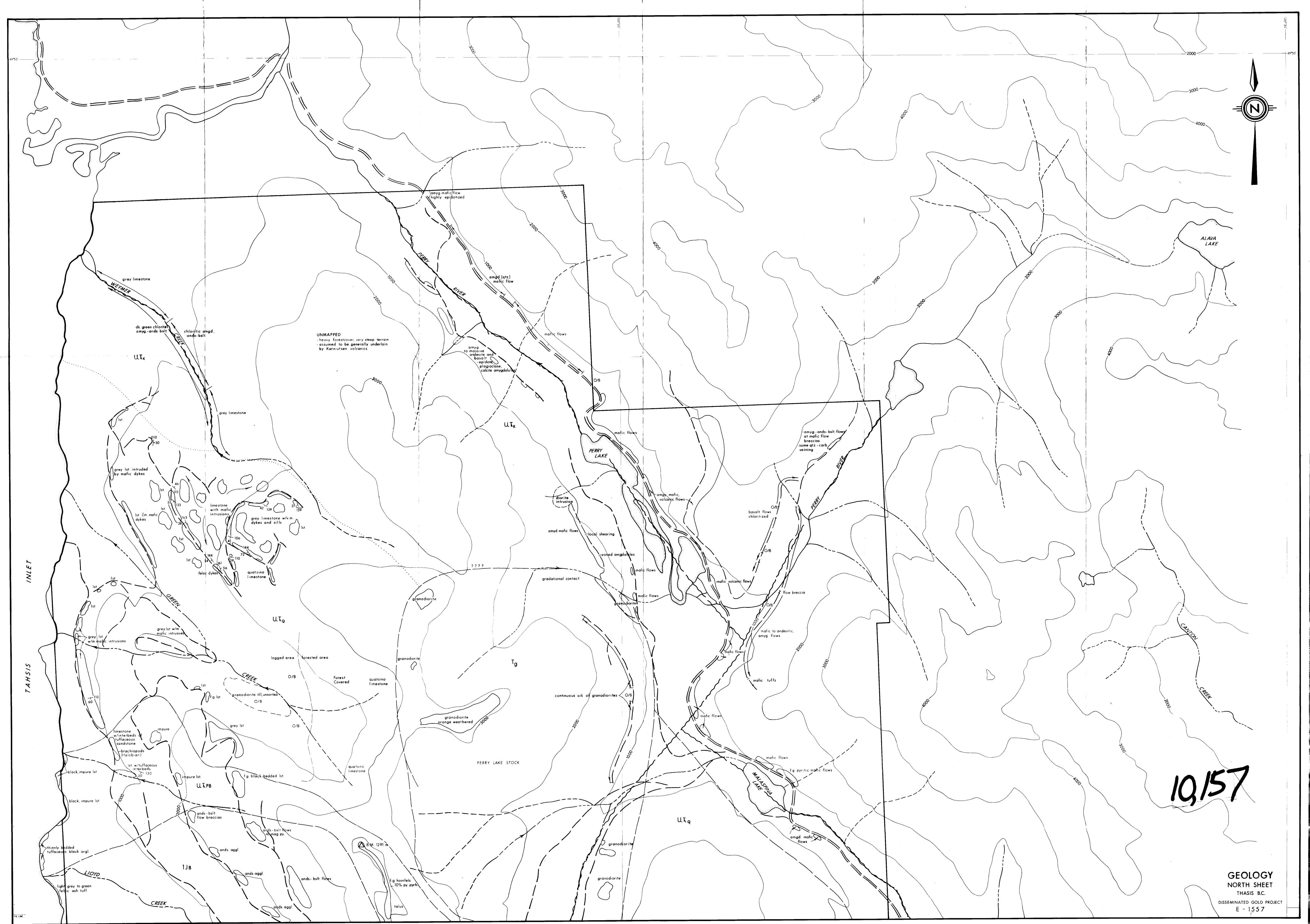
#### G.F. McArthur

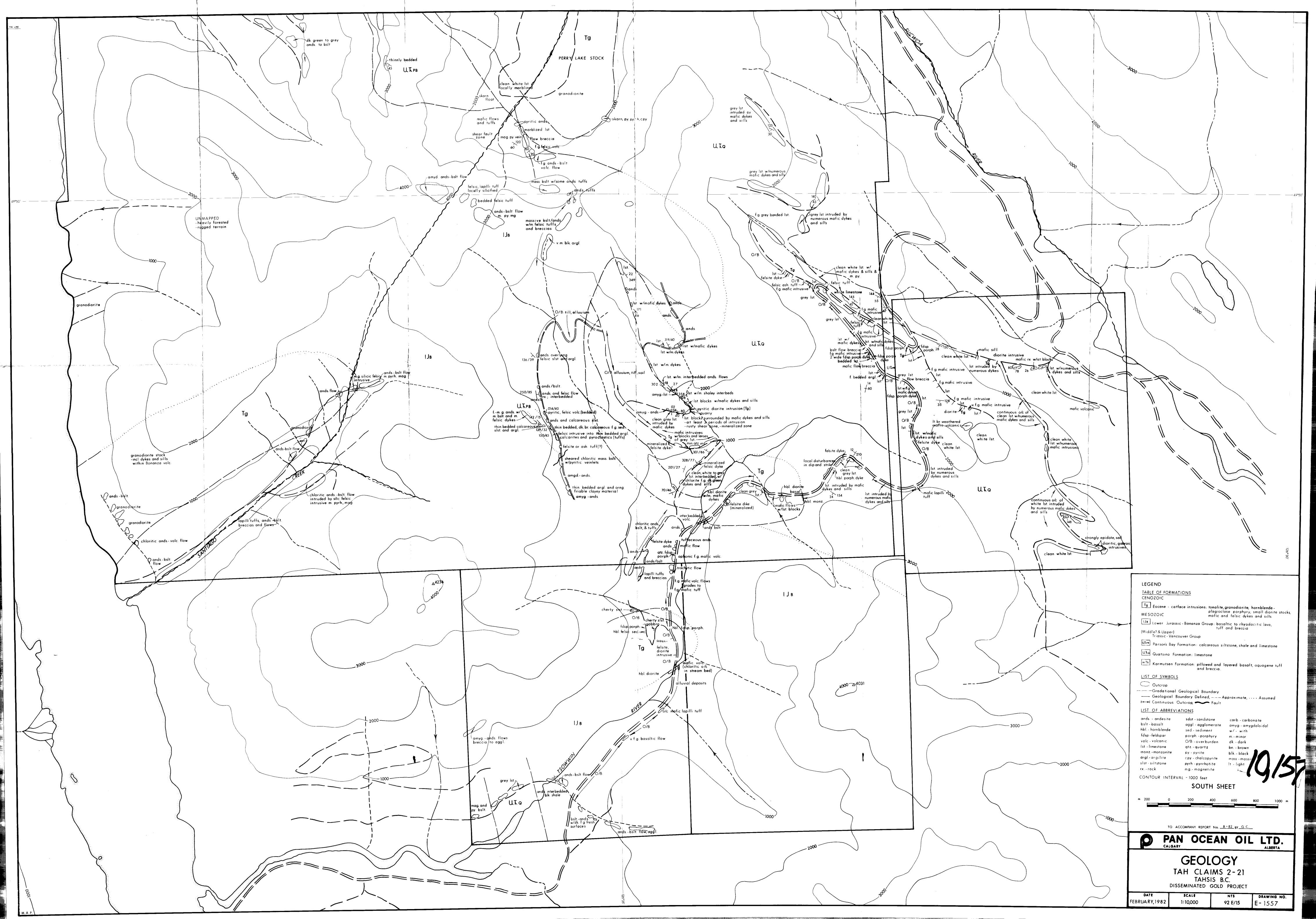
I, Gerald F. McArthur of Calgary, Alberta, hereby certify that:

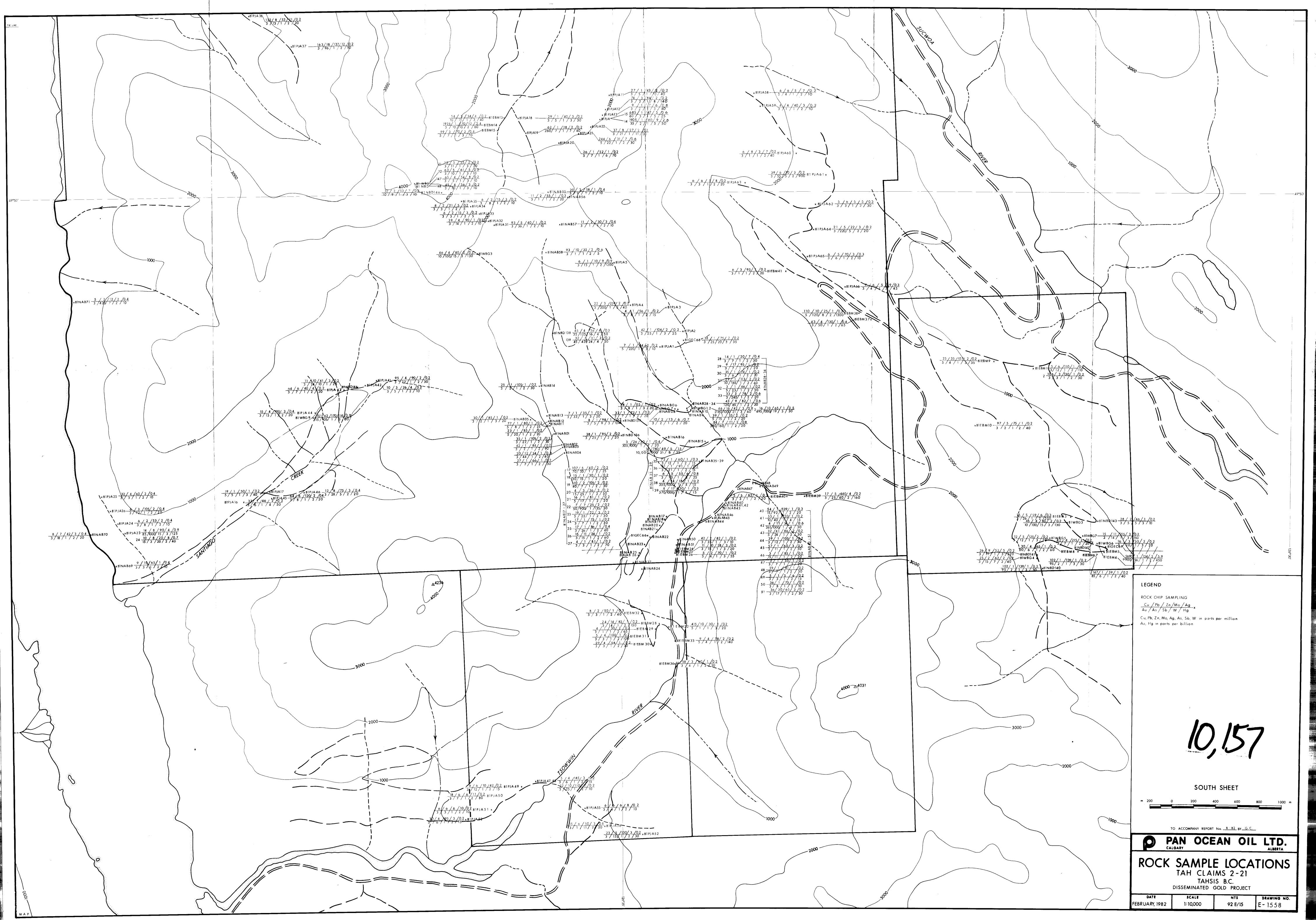
- 1) I am a geologist residing at 111 Chelsea St., N.W., Calgary, Alberta and am currently employed by Pan Ocean Oil Ltd. of 300 Fifth Ave., S.W. Calgary, Albarta.
- 2) I graduated from the University of British Columbia, in 1973 with a BSc. in Geology and have practiced my profession since that time.
- I am a professional geologist registered in the province of Alberta. 3)
- 4) I supervised the 1981 field work carried out by George E. Chabot for Pan Ocean Oil Ltd., which forms the basis of this report.

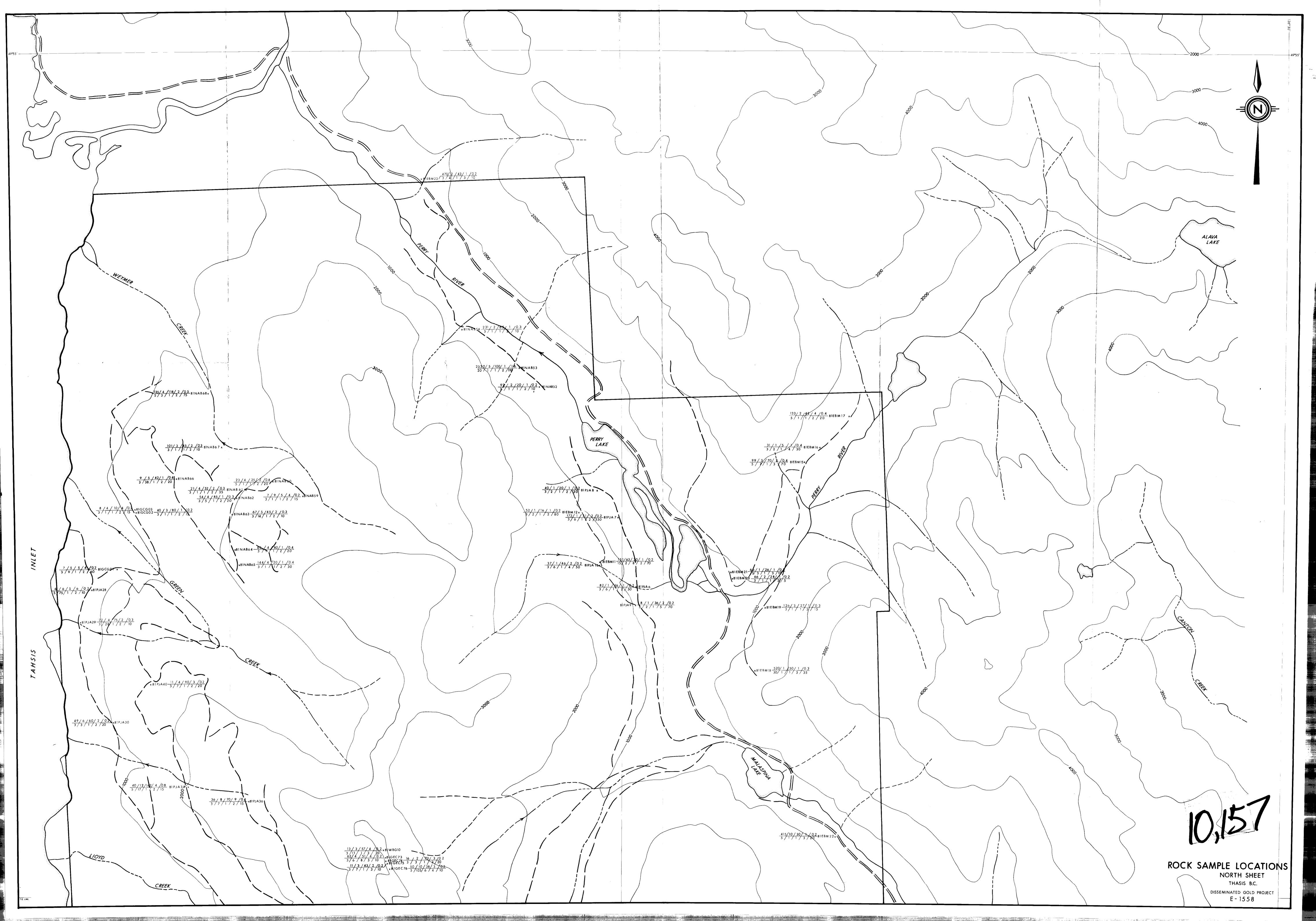
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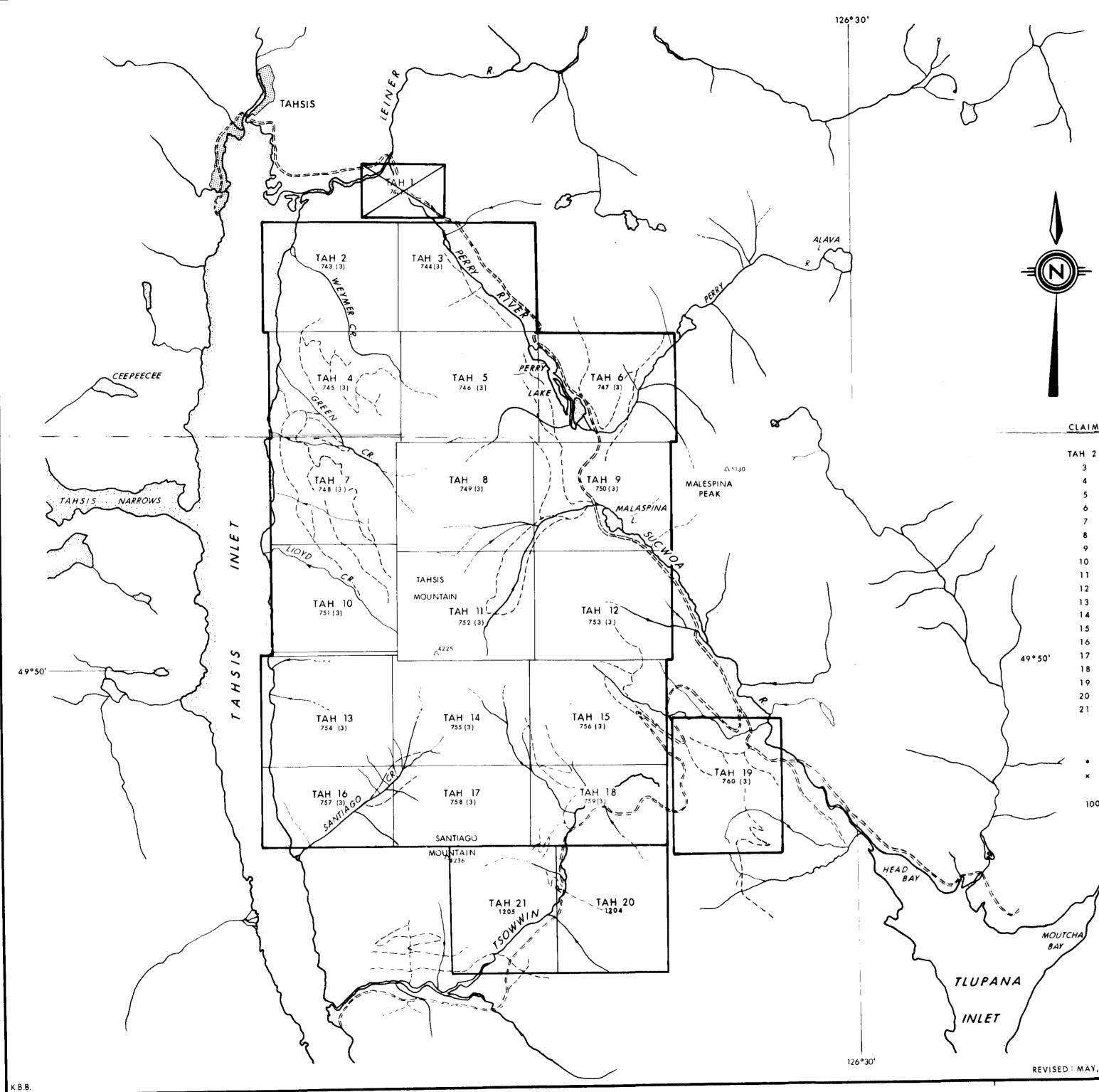
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