3930

GEOLOGICAL REPORT

ON THE

NICO CLAIMS

AT 82K/3E

SLOCAN MINING DIVISION

117° 04' W, 50° 03' N.

for

PAN OCEAN OILS LIMITED

CALGARY, ALBERTA

R.J. Trimble, B.Sc.

and

R.J. MacNeill, P.Eng.

November, 1978

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SUMMARY

A program of detailed examination of the NICO property, owned by Pan Ocean Oils Limited, was performed during the summer field season, 1972, by employees of Derry, Michener and Booth, Vernon, B.C.

The property consists of five mineral claims located between Kaslo and New Denver in the Slocan Mining Division. Elevations range from 4000 feet to 6300 feet on the property.

Geological mapping on a scale of 1 inch equals 400 feet was performed on three of the claims. The other two were partially mapped. The property is underlain by metamorphosed volcanic sequences intruded by the Kaslo Ultrabasic Belt, a body of serpentinized periodotite. No concentrations of sulphides were found during the mapping.

No further work is recommended.

INTRODUCTION

The NICO claims were staked by Mr. P. Leontowicz during the 1970 field season. During the 1972 field season the drews of Derry, Michener and Booth undertook a program of geological mapping.

LOCATION AND ACCESS (Drawing NICO-72-1)

The NICO property is located on the northeast slope above the Kaslo River. The claims are on a ridge between Rossitter and Lyle Creeks. The claim group centres at 117° - 04' west longitude and 50 - 03' north latitude (NTS Co-ordinates).

A forestry access road provides access to all claims.

TOPOGRAPHY AND CLIMATE

The group is on a steep mountain side with dense second growth timber along with alder, willow and devil's club. Several seasonal creeks cross the claims as they flow toward Rossiter Creek. The northwest portion of the claims group is inaccessible due to precipitous terrain.

The field season began at lower levels in late June. The upper portions of the claim group was inaccessible due to remnant snow until mid July.

CLAIMS

The NICO claims are owned by Pan Ocean Oils Limited by right of transfer. The property consists of the following claims:

Claim	Record No.	Expiry Date
NICO 1 - 5	15656M to 15660M	Nov. 13, 1972

REGIONAL GEOLOGY

The property is underlain by metamorphosed volcanic sequences of the Kaslo Series. These units have been intruded by a band of ultrabasic rocks called The Kaslo Ultrabasic Belt.

The Kuskanox Batholith occurs to the north of the claim group. The Nelson Batholith, which is thought to have been the source of structural tensions which created intense alpine-type folding in the area, is located to the south.

FIELD WORK

The accessible areas of the ultrabasic belt were mapped on one inch equals 400 feet topographic maps. Points of reference were determined with the aid of a pocket altimeter.

GEOLOGY (Drawing NICO-72-2)

Two rock units were identified in the field. These are shown in the following Table of Formations.

TABLE OF FORMATIONS

Unit	Rock Types	Age
1. Kaslo Series Volcanics	Andesite) tuff)	Triassic
2. Kaslo Ultrabasic Belt	Peridotite) Dunite)	Upper Jurassic or Lower Cretaceous (?)

KASLO SERIES VOLCANICS

Volcanic assemblages of andesites and tuffs appear to have dominated the map area prior to regional dynamothermal metamorphism. These units now appears as regionally homogenous and massive greenstone sequences.

In hand specimen the rock is pale-green to light-green. It is fine-grained with strong colour consistency. (This consistency is a guide in distinguishing it from the serpentenized peridotite.)

Localized alteration of the greenstone, notably along the hanging wall of the ultrabasic rock, has produced a chlorite-biotite schist. Foliation is parallel to the nearby contact. This alteration may reflect movement along the contact during or after ultrabasic intrusion.

Jointing and fracturing patterns are extremely complex. They reflect the intense alpine folding characteristic of this area. The units appear to have been folded in several stages to two systems of sub-parallel, tight, assymetrical synform/antiform

structures. The folding is only locally rhythmic, with marked changes in the amplitude and spacing of the folds.

Quartz veining in the northeast wall of the volcanics' contact with the ultrabasic contains minor amounts of galena, sphalerite and chalcopyrite.

KASLO ULTRABASIC BELT

The main target of this examination was serpentenized rock occurring as a belt up to 500 feet wide through the claim group. This unit is the Kaslo Ultrabasic Belt and is an intrusion of peridotite and related rocks injected discordantly into the Kaslo Series volcanic rocks. The contacts with the greenstone are roughly parallel, although the belt does vary in width from 300 feet to 500 feet. It is steeply dipping to the southwest.

On weathered surfaces the rock is dark-green to black; on fresh surfaces mottled dark-green to deep-gray. Remnant pyroxene crystals altered to bastite by replacement of the pyroxene by brucite and magnetite are a distinguishing feature.

The most pronounced alteration of the peridotite is serpentinization. The degree of serpentinization varies from the footwall to the hangingwall. A thin band of highly serpentinized rock exists along the footwall contact. Further toward the hangingwall the degree of alteration increases. Localized, intense alteration,

increases. Localized, intense alteration, including the formation of talc-carbonate schist, is attributed to the thermal metamorphism related to shear zones transecting the ultrabasic.

In hand specimen the serpentinization appears as a coating of serpentine over augen-like fragments of peridotite. Talc coatings of the serpentinized fractures is common.

Structural deformation of the ultrabasic appears as faults and fracture zones paralleling the ultrabasic strike. As shown in Drawing NICO-72-2, two lenses of ultrabasic rock occur to the northeast of the main body. These lenses are attributed to the injection of peridotite along fracture systems parallel to the main intrusive path.

Field examinations have indicated that pyrrhotite and pyrite occur as fine disseminations in the serpentinized peridotite. The pyrrhotite is related to serpentinization with minor concentrations along serpentine/peridotite contacts. No other sulphides were found in the ultrabasic rock.

CONCLUSIONS

No sulphide concentrations of economic significance were found during the mapping of the NICO group.

RECOMMENDATIONS

Based on the lack of significant sulphide concentrations, no further work on The NICO Group is warranted at this time.

R.J. Trimble, B.Sc.

R.J. MacNeill, P.Eng.

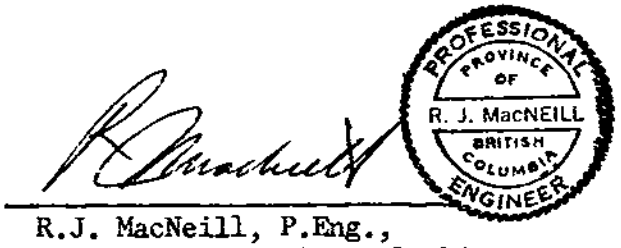
PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
R. J. MacNEILL

QUALIFICATION OF WRITER

ROY JAY TRIMBLE is 24 years of age and completed the degree of Bachelor of Science (Honours Geology) at the University of British Columbia in May, 1972.

His experience includes one season as field assistant in the Yukon Territories with ASARCO, four months as an underground assistant geologist with Falconbridge Nickel Mines Limited, eight months as Mine Geologist with Davis Keays Mining Company Limited, four months as Project Manager for Cordilleran Engineering, four months as Party Leader and Field Geologist with Trigg, Woollett and Associates Limited and has been employed on this project as Project Manager and Field Geologist.

Mr. Trimble is fully qualified as a field geologist, and, in the undersigned's opinion, has performed his duties carefully and reliably.



R.J. MacNeill, P.Eng.,
Province of British Columbia

AFFIDAVIT ON EXPENDITURES

ITEM	COST
J. Kerr, P.Eng., Consulting July 2/72 - 0.5 days @ $140 per day	$ 70.00
K.L. Daughtry, P.Eng. (Ont.) Consulting 2nd supervision July 20/72 1 day @ $125 per day	125.00
R.J. Trimble, B.Sc. Project Manager 2nd Field Geologist Period of July 1-31/72 - 6 days @ $100 per day	600.00
TRANSPORTATION	
Truck 6 days @ $14.50 per day	87.00
SUPPORT	
Room and board, 8 man-days @ $10 per day	80.00
SECRETARIAL, TELEPHONE, OFFICE MISCELLANEOUS	88.00
	$ 1,050.00

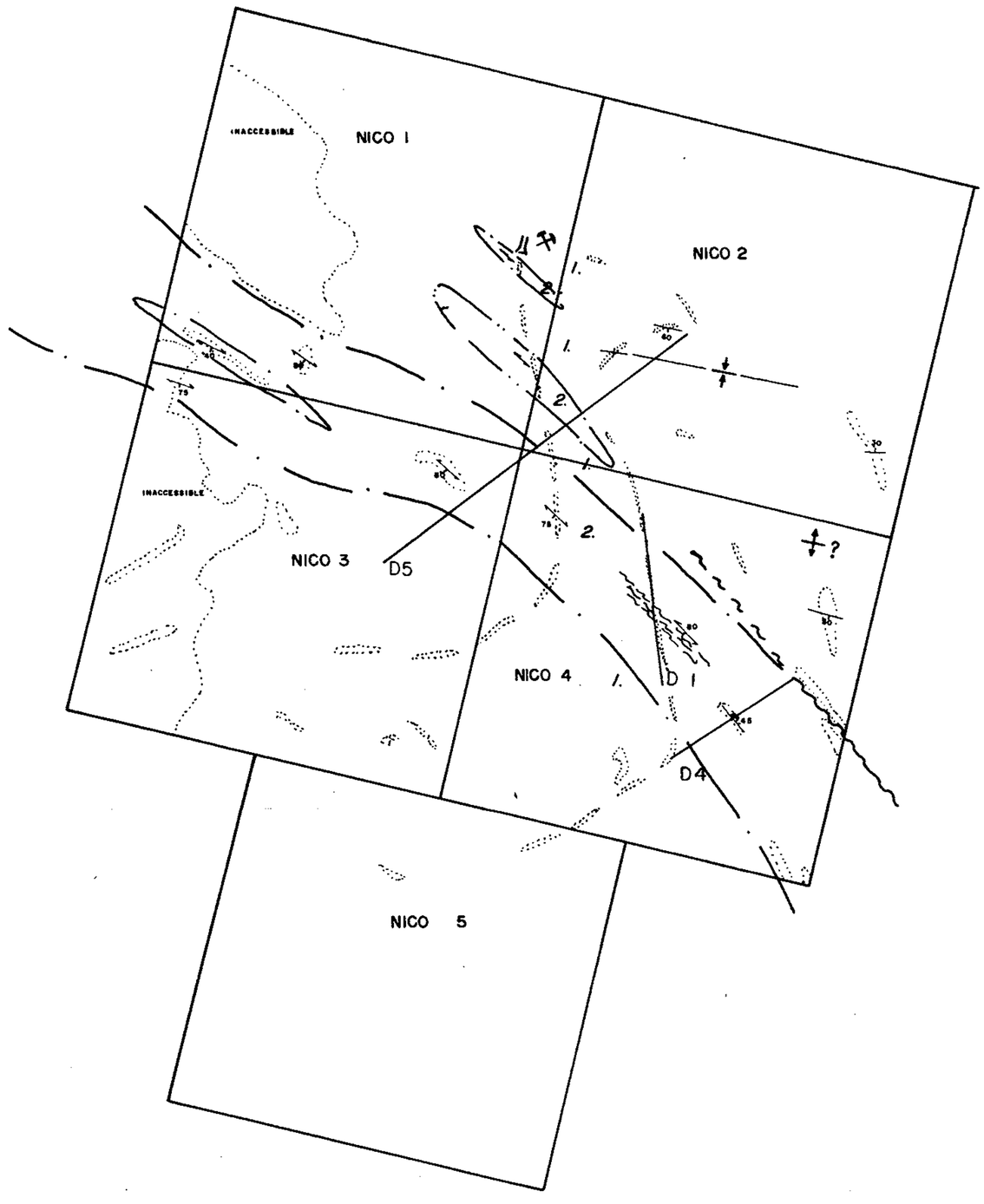
I, R.J. MacNeill, of the City of West Vancouver in the Province of British Columbia, make the above declaration, conscientiously believing it to be true and knowing it is of the same force and effect as if made under oath and by virtue of the Canada Evidence Act.

R. MacNeill

Declared before me at the City of Vancouver, in the Province of British Columbia, this 14 day of November, 1972, A.D.

A Commissioner for taking affidavits for British Columbia

SUB-MINING RECORDER



LEGEND

1. Kaslo Series' Greenstones
2. Kaslo Ultrabasic Belt

Outcrop
Foliation
Bedding attitude
Synform
Antiform
Jointing
Fault-defined
" -assumed
Contact assumed
" estimated

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
R. J. MacNEILL

DERRY MICHENER AND BOOTH LTD.

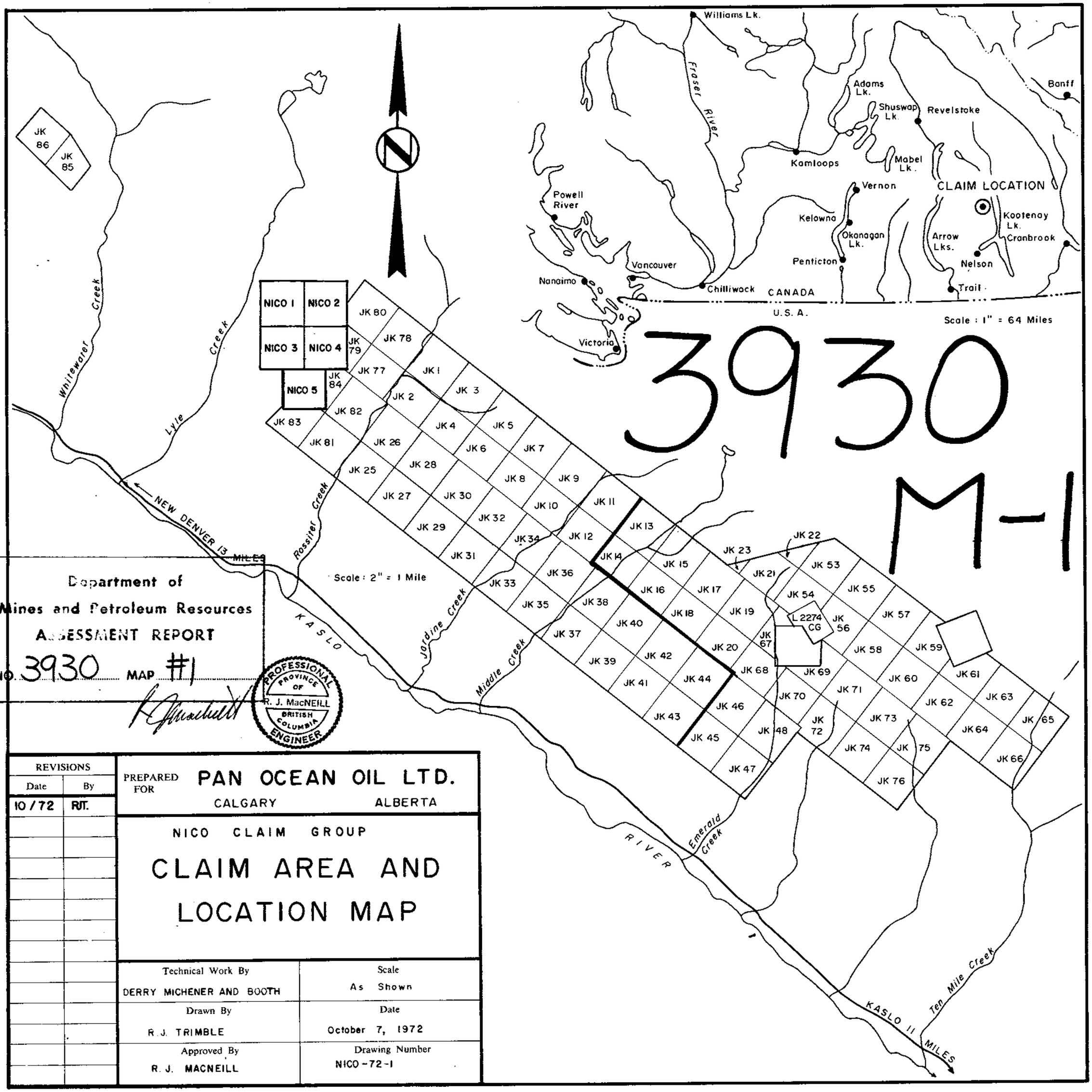
PAN OCEAN OILS LIMITED

NICO GROUP

SLOCAN MINING DIVISION

GEOLOGY & TRAVERSES

TECHNICAL WORK BY: R. J. TRIMBLE	DATE: OCTOBER 7, 1972.
CHECKED BY:	REVISED /
SCALE: 1"= 400'	DRAWING NICO-72-2



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M-1

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 3930 MAP #1

PROFESSIONAL ENGINEER — PROVINCE OF BRITISH COLUMBIA — R. J. MacNEILL

REVISIONS	
Date	By
10/72	RJT.

PREPARED FOR **PAN OCEAN OIL LTD.**
CALGARY ALBERTA

NICO CLAIM GROUP

CLAIM AREA AND LOCATION MAP

Technical Work By: DERRY MICHENER AND BOOTH	Scale: As Shown
Drawn By: R.J. TRIMBLE	Date: October 7, 1972
Approved By: R. J. MACNEILL	Drawing Number: NICO-72-1