

REPORT No. 13-81

REPORT ON A RECONNAISSANCE GEOCHEMICAL SURVEY

CONDUCTED ON THE

TAH 1 to 19 CLAIMS

ALBERNI MINING DIVISION

NTS. 92 E 15

BETWEEN $49^{\circ}47'$ and $49^{\circ}56'$ NORTH LATITUDE

$126^{\circ}33'$ and $126^{\circ}37'$ WEST LONGITUDE

OWNED AND OPERATED BY

PAN OCEAN OIL LTD.

WORK DONE BY

PAN OCEAN OIL LTD.

REPORT BY:

G.D. White and G.E. Chabot

APRIL 6, 1981

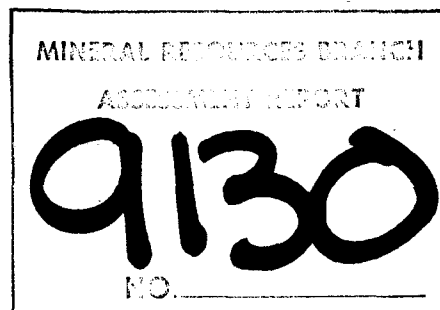


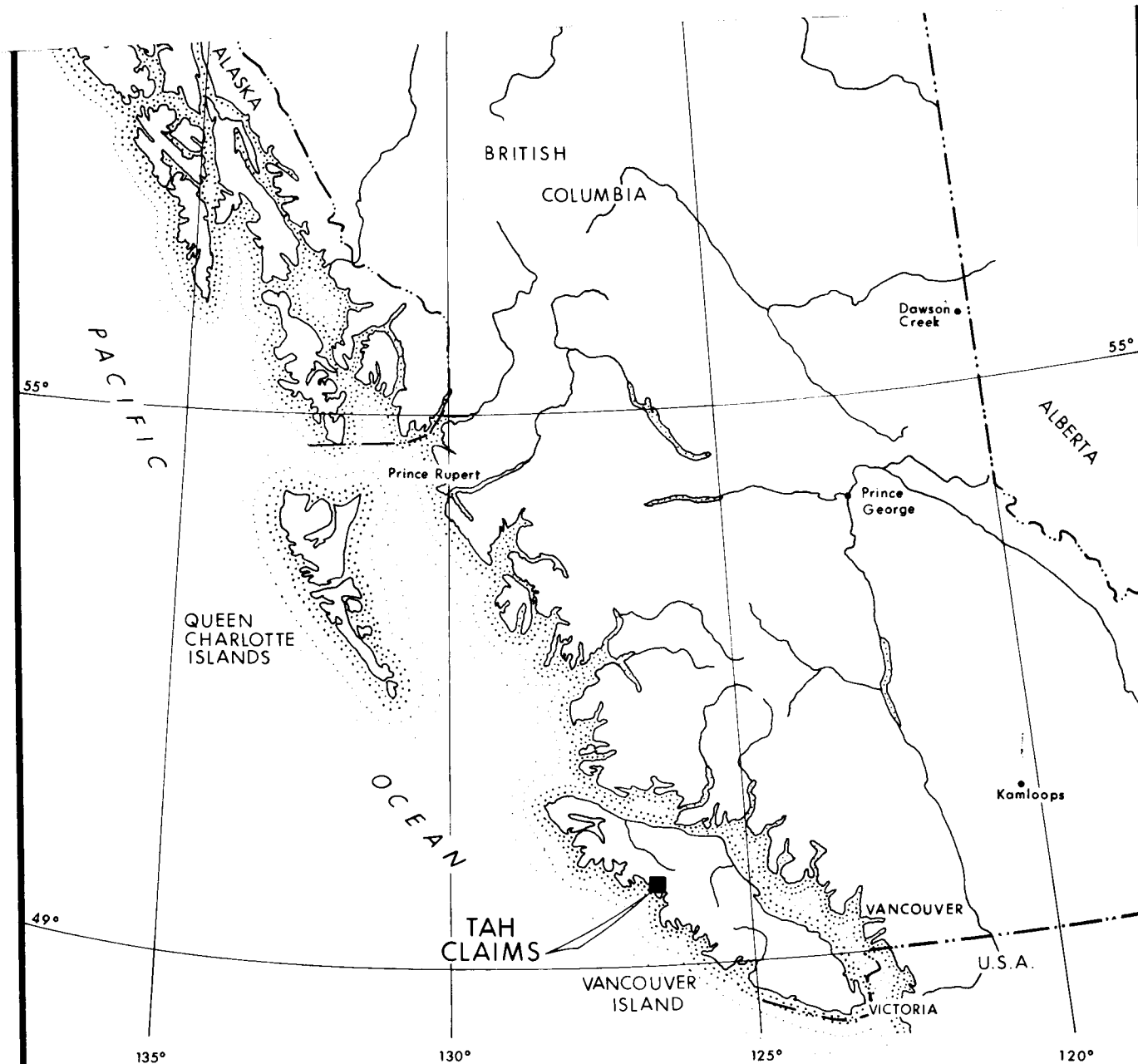
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TO ACCOMPANY REPORT NO. 13-81 BY G.C. & G.W.



PAN OCEAN OIL LTD.
CALGARY ALBERTA

**GENERAL LOCATION
TAH CLAIMS 1 - 19**

DISSEMINATED GOLD PROJECT

DATE
APR., 1981

SCALE
1:7 500 000

NTS
—

DRAWING NO.
A-1200

D.A.

A. INTRODUCTION

I Geography and Physiography

The property is located in the Vancouver Island Ranges south of Tahsis, British Columbia. (Figure 1). 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 edge of the property while all access to the western edge of the property along Tahsis Inlet is gained by abandoned logging roads from the Inlet.

The property is heavily forested with Western Hemlock, Balsam Fir, Western Red Cedar, Douglas Fir and Sitka Spruce and much of the property has been or is presently being logged. Exceptionally dense forest, with considerable rainfall (up to 500 cm/yr), makes traversing difficult.

The slopes are steep with elevation on the claims varying from sea level along Tahsis Inlet to 1291 meters at Santiago Mountain. Numerous creeks drain the area with many intermittent creeks. During times 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.

II Property Definition, History and Economic Potential

The property comprises 19 claims, Tah 1 to 19 (see Table 1). The claims were staked for Pan Ocean Oil Ltd. in February 1980. (Plate I).

The acquisition of the property resulted from a literature study of Nevada-type deposits. The study delineated the economic, physical, geological, and geochemical characteristics of the ore type. A complete inventory of gold and metals associated with the target deposit was compiled.

TABLE 1

List of Mineral Claims

NAME	UNITS	RECORDING DATE	MINING DIVISION	RECORDING	TAG NO.
* TAH 1	6	March 10, 1981	Alberni	742	39685
TAH 2	20	" " "	"	743	39686
TAH 3	20	" " "	"	744	39687
TAH 4	20	" " "	"	745	39688
TAH 5	20	" " "	"	746	39689
TAH 6	20	" " "	"	748	39690
TAH 7	20	" " "	"	749	39691
TAH 8	20	" " "	"	750	39692
TAH 9	20	" " "	"	751	39693
TAH 10	20	" " "	"	752	39694
TAH 11	20	" " "	"	753	39695
TAH 12	20	" " "	"	754	39696
TAH 13	20	" " "	"	755	39697
TAH 14	20	" " "	"	756	39698
TAH 15	20	" " "	"	757	39699
TAH 16	15	" " "	"	758	39701
TAH 17	15	" " "	"	759	39702
TAH 18	15	" " "	"	760	39703
TAH 19	20	" " "	"	761	39704

* No work was performed and claim will be allowed to lapse.

In addition, a study was made of rock groups presumed favourable as a host for these deposits. With this information, the Tahsis area of Vancouver Island displayed several important features which suggested a favourable exploration area.

During a portion of August and September 1979, field studies were undertaken on Vancouver Island to confirm the area's selection. The purposes of the field work were to examine the lithologies to confirm their favourability, to select the best exploration methods and to determine operational logistics. During the course of this field work, several streams were sampled using heavy mineral sampling methods to test the usefulness of the technique. The method proved very effective in locating anomalous drainages.

Zeballos, to the northwest of the property, was the site of a major gold camp. Production from this camp, to the time operations ceased in 1948, totalled 287,811 ounces of gold and 124,700 ounces of silver. The geology of the Tahsis area is similar to the Zeballos camp thus the Tahsis area appears to be a favourable exploration target.

III Program Summary

In the summer of 1980, a program of heavy mineral and rock sampling of stream bed load was carried out by company geologists. Results of the preliminary program were sufficiently encouraging to warrant a more extensive program. During February 1981, heavy mineral sampling and reconnaissance rock and stream sediment geochemistry was performed by a four man crew comprising two geologists and two experienced prospectors. During the survey, 164 rock samples, 92 stream sediment samples and 14 heavy mineral samples were collected.

B. GENERAL GEOLOGY

The geology of the general claims area has been mapped by the Geological Survey of Canada, however, the report has not yet been published. Immediately to the north, G.S.C. Paper 74-8 "Geology and Mineral Deposits of Alert Bay-Cape Scott Map Area Vancouver Island, British Columbia" by

J.E. Muller, K.E. Northcote and D. Carlisle describes geology similar to the property area. In addition, O.R. map 463 "Geology of Vancouver Island" by J.E. Muller, 1977 presents a geological compilation of the claims area.

The property is chiefly underlain by rocks of the Vancouver Group, consisting of a basal Middle Triassic sediment-sill unit, a thick pile of Triassic basaltic volcanics (Karmutsen Formation), Upper Triassic carbonate, pelitic and volcanoclastic sediments (Quatsino and Parson Bay formations) and a Lower Jurassic sequence of intercalated sediments (Bonanza Subgroup). The Vancouver Group is intruded by large and small bodies of Middle Jurassic Island Intrusions (Plate II).

I Vancouver Group

a) Sediment Sill Unit

This unit has not been observed on the property.

b) Karmutsen Formation

The Karmutsen formation has been divided into three subdivisions; a lower of pillow lavas, a middle one of pillow breccias and aquagene tuffs and an upper one of layered flows.

Only the lava flows are exposed on the property. The layering is generally hard to observe, but, jointing perpendicular to flow direction is common and useful as an indirect guide to the attitude of the beds. Amydales are common, especially at the tops of flows, and are commonly filled with quartz and carbonate.

Karmutsen rocks are common on the eastern edge of the property along the Perry and Sucwoa Rivers. They occupy both sides of the Major northwest trending fault and thus probably underlie most of the property.

c) Quatsino Formation

The lower part of the Quatsino Formation, resting para-conformably on Karmutsen volcanics, consists of thick-bedded to massive, brown-grey to black, light grey to white weathering, fine to microcrystalline limestone.

The upper part of the Quatsino Formation consists of medium to thin-bedded limestone interlaminated with black calcareous siltstone. The beds are commonly lenticular and outcrops have a "ribbed" appearance. Limestone is common in the south central portion of the property. It varies from a pure white to dark grey, "chert-like" limestone. Skarn development has been noted between Green Creek and Lloyd Creek and along the upper reaches of the Tsowwin River.

d) Parson Bay Formation

The lower part of the formation is thin-bedded to laminated calcareous siltstone and shale, interbedded with lenticular limestone beds up to 15 inches thick. This is succeeded by beds of feldspathic greywacke, 3 to 4 inches thick, exhibiting small-scale intraformational slumping. The thin-bedded sediments are succeeded by a remarkable limestone breccia up to 10 feet thick consisting of limestone blocks up to 3 feet long and 1½ feet thick. The fragments are light grey, fairly pure calcarenite in a matrix of black shaley limestone. It is apparent that the bed is an intraformational slump breccia. The breccia is succeeded by alternating grey and black limestone beds averaging, respectively, one foot and a few inches in thickness, generally similar to medium-bedded Quatsino limestone and containing a few thin limestone breccias. Above this is calcareous feldspathic greywacke, volcanoclastic grit and pebble-conglomerate with calcareous matrix, interbedded with laminated black shaley limestone. The clastic beds exhibit graded bedding and slumping and are apparently of turbidite origin. The uppermost part of Parson Bay formation consists of fine-grained calcareous greywacke, massive coralline limestone and thinly bedded fragmental limestone and grey to maroon colored volcanic sandstone and tuffaceous limestone.

Due to the nature of our investigation, it was difficult to separate Quatsino and Parson Bay formations but it appears shaley limestone of Parson Bay formation occurs along Green Creek.

e) Bonanza Volcanics

The lithology of the Bonanza Volcanics is varied and heterogeneous, in contrast to the monotonous, uniform sequences of the Karmutsen volcanics. Lavas range in composition from basaltic andesite, commonly amygdaloidal, to rhyodacite and are interbedded with maroon and green tuffs, breccias and several clastic sedimentary units.

Bonanza andesites are dark reddish to greenish-grey rocks, less massive and more coarsely vesicular than Karmutusen basalts. They are generally fine grained to aphanitic, but there are distinctive coarse porphyries containing densely packed plagioclase phenocrysts to 1 cm. long. Large vesicles contain calcite, quartz and rosettes of zeolites.

Bonanza dacites are reddish to greenish-grey rocks of lighter hues than the andesites, commonly white or pinkish plagioclase phenocrysts and specks of hematite. Bonanza rhyodacites are reddish-green and pinkish-grey aphanitic or vitrophyric rocks with white or pink feldspar phenocrysts, a few mm. long. Many of these silicic rocks exhibit typical welded tuff texture. They also locally exhibit complex folds within the outcrops, apparently the result of the crumpling of a moving flow.

Bonanza volcanics are commonly observed on the property, particularly in the central portions. Agglomerates were seen in the area of the Lloyd Creek area, where they overlie a dark limestone of the Quatsino Formation.

III Island Intrusions and Westcoast Crystalline Complex

Granitic rocks are widespread throughout the area as well as other parts of Vancouver Island. Most granitic intrusions are Jurassic in age and have been designated Island Intrusions.

A complex of amphibolite, basic migmatite and gneissic quartz diorite and gabbro was named Westcoast Crystalline Complex.

The property contains at least two areas of intrusive rocks. The Santiago Creek area contains granodiorite. The extent is unknown but outcrops are observed in the creek and along the ridge to the north. According to the compilation map, this belongs to the Island Intrusions.

The Malaspina Creek area on the eastern side of the property contains many quartz diorite boulders. Outcrops along the northern edge of the property were of similar lithology.

C. GEOCHEMISTRY

The purposes of the program were to determine the source of the anomalous metals present in the heavy mineral samples, to gain a knowledge of the geochemistry and economic potential of the property and to, hopefully, develop potential targets for further detailed work.

The 1980 program, as part of a larger regional program, was designed to confirm the previous heavy mineral results and to obtain a "feel" for the area.

The 1981 program can essentially be divided into two parts:

- a) the first part being the follow-up of the heavy mineral sampling to determine the source of the previous anomalies and thus identify potential anomalous areas.
- b) the second part entailed traverses across the property sampling streams and potentially anomalous bedrock (Plate III).

1) Heavy Mineral Sampling

This technique requires care in gathering the sample in order that all possible heavy minerals are collected. The technique involves sieving sandy-silty gravels in creeks through -6 mesh (coarse) and -20 mesh (fine) sieves to collect a 15 to 30 pound sample. In order to obtain a sample, there must be sufficient fines available to constitute a sample. Consequently, sample collection is time consuming and may require as much as four hours to collect a sample. The steep slopes encountered on the property limits sample sites, as well, the heavy rainfall tends to flush the finer material from the creeks.

The sieved field samples were sent to C.F. Mineral Laboratories in Kelowna, British Columbia for preparation prior to analysis. At the laboratory, the samples were sieved to provide two size fractions: 1) -35 to +150 mesh and 2) -150 mesh. The samples were then separated into various weight fractions using a heavy liquid separation process which produces a heavy mineral fraction containing mineral grains having a specific gravity of greater than 3.3. The material was then subjected to a variety of electromagnetic and magnetic separations which produces a magnetic, paramagnetic and non-magnetic fraction.

The material chosen for analysis constituted two different size fractions of: 1) -35 to +150 mesh and 2) -150 mesh containing paramagnetic and non-magnetic mineral grains. Both heavy non-magnetic and paramagnetic fractions were analyzed for gold (Au), arsenic (As), antimony (Sb) and tungsten (W) using neutron activation. This analysis was performed by Nuclear Activation Services in Hamilton, Ontario. The four elements were determined on a 2.0 gram portion of each mineral fraction using the MacMaster University reactor as a gamma source. After a three day cooling period, the gamma intensity from each element was counted and then compared to standards.

Results of the sampling will be discussed later.

2) Stream Sediment and Rock Chip Sampling

Sampling was generally centered along and close to the roads due to the dense nature of the vegetation, the steep slopes and the network of roads and trails across the property.

It was felt that this would afford adequate coverage of the property at this initial stage of exploration. The majority of the sampling was conducted by two experienced prospectors, while limited sampling was done by two geologists who supervised the program.

During the stream sediment sampling, sandy-silty gravel was collected from the bottom of each creek bed. The samples were placed in gusset bags and sent to Bondar-Clegg and Company Ltd. in Vancouver, British Columbia. Stream sediment samples were also taken at the heavy mineral sample sites. The reason for this was due to differencing processes which each method records. The heavy mineral method measures detrital free minerals which would enter from surficial mineralization in close proximity to the stream by weathering processes. The stream sediment sample measures the hydromorphic dispersion of metal ions. The source of these could be from buried mineralization where ground waters would transport them and subsequently deposit them in the stream. Therefore, using a combination of these methods, a clue is given as to the source of any anomalous values.

Due to the microscopic nature of the suspected mineralization, it is not possible to observe the mineralization in the field. Consequently, it was necessary to collect and analyse a large number of bed-rock samples. Using the Nevada-type disseminated gold model, priority was placed on sampling the limey rocks, such as the Quatsino limestone, the skarns developed along the periphery of the intrusives and areas of silicification and weathering were also sampled. This method proved effective in delineating possible target areas.

All rocks and stream sediment samples were analysed by Bondar-Clegg and Company Ltd. of Vancouver, British Columbia for Cu, Pb, Zn, Mo, Au, As, W, Sb, and Hg. The elements Cu, Pb, Mo, and Ag were dissolved in hot Lefort Aqua Regia and analysed by atomic absorption. Molybdenum and silver were automatically background corrected. Gold was analysed using the combination fire assay-atomic absorption method, with rock sample weights set at 20 grams. Arsenic and tungsten were analysed using colormetric methods. Antimony was determined by X-ray diffraction and mercury by closed cell atomic absorption after an Aqua Regia digestion.

D. DISCUSSION OF RESULTS

I Heavy Mineral Sampling

The heavy mineral sampling technique provided very encouraging results, (Plate IV). Generally, the anomalous gold values are found in the fine (-150 mesh) fraction. There are two possible reasons for this: the first is due to the suspected microscopic nature of the target mineralization and the second is due to the erosional processes which break down the detrital grains. The presence of anomalous arsenic indicates the probability that hydrothermal processes were active in the weathered area. Highly anomalous values in the coarser fractions are possibly indicative of coarser mineralization than suspected and/or placer mineralization.

Three general anomalous areas have been indicated which should serve as good potential exploration targets. These are: 1) the upper part of Tsowwin River drainage (TAH 18): 2) the Malaspina Creek drainage (TAH 8 and TAH 18) and 3) the entire west side of the property including, in order of priority, the Weymer Creek, Santiago Creek, Green Creek and Lloyd Creek drainages. The Santiago Creek drainage is particularly interesting in that it appears to be on trend with the Malaspina creek drainage.

II Stream Sediment Sampling

Generally, the stream sediment sampling did not provide very encouraging results. The only significant anomalous values occur on TAH 18. The anomalous gold values are encouraging in that they indicate the probability that there is subsurface mineralization. The anomalous arsenic and mercury values indicate the presence of hydrothermal processes in this area. These results warrant further work.

III Rock Chip Sampling

Favourable results were obtained from the rock chip sampling program, (Plate V). The most interesting area is the Tah 18 area. Three samples were highly anomalous in gold and arsenic. Field examination of the area revealed extensive skarn development. In light of rock chip and heavy mineral results, this area is a high priority target. Creeks draining into Tahsis Inlet, on the west side of the property, contain above background values of gold, arsenic and mercury. Field examination did not reveal extensive skarn development, so we may be dealing with a different style of mineralization, possibly of the disseminated gold type. Further work appears to be warranted. Anomalous copper and zinc values are present throughout the property but are particularly prevalent on the Tah 19 claim. Ground examination revealed strongly magnetic rocks with visible pyrrhotite, pyrite, magnetite and chalcopyrite. These results indicate further exploration is warranted in this area.

E. RECOMMENDATIONS

This claim area appears to be highly favourable and further exploration is definitely warranted. The following recommendations suggests exploration techniques which can be used.

- 1) Geochemical anomalies should be examined through a combination of follow-up stream and heavy mineral sampling (if possible), prospecting, rock sampling and reconnaissance mapping.
- 2) Once a potential source is defined, detailed mapping, rock sampling and grid soil geochemistry should be carried out.

STATEMENT OF EXPENDITURES

WAGES:

G. Chabot and G. White, Geologists	
Jan 29 to Feb 17, 1981: Field Work	
2 people for 20 days @ \$200.00/day	\$8,000.00
N. Debock and E. Debock, Prospectors	
Jan 29 to Feb 15, 1981: Field Work	
2 people for 17 days @ \$175.00/ManDay	\$5,950.00
SUB TOTAL	<u>\$13,950.00</u>

FOOD AND ACCOMMODATIONS:

Jan 29, 1981: Meals for 4 people (3)	\$54.50
Hotel for 4 people @ \$31.00/Night	\$124.15
Jan 30, 1981: Meals for 4 people (3)	\$180.80
Hotel for 4 people @ \$37.30/Night	\$149.20
Jan 31, 1981: Meals for 4 people (2)	\$35.75
Jan 31-Feb 14, 1981: Motel food and accommodation at Tahsis Motel, 14 days for 2 people @ 50.77/ManDay	\$1,421.00
Jan 31-Feb 13, 1981: Motel food and accommodation at Tahsis Motel, 13 days for 2 people @ \$50.77/ManDay	\$1,320.02

Feb 14, 1981: Meals for 4 people (2)	\$52.05
Hotel for 2 people @ \$32.55/Night	\$65.10
Feb 15, 1981: Meals for 2 people (3)	\$73.08
Hotel for 2 people @ \$44.10/Night	\$88.20
Feb 16, 1981: Meals for 2 people (3)	\$25.10
Hotel for 2 people @ \$29.40/Night	\$58.80
Feb 17, 1981: Meals for 2 people (2)	\$21.39
Jan 31-Feb 14, 1981: Groceries for field lunches	\$228.61
SUB TOTAL	<u>\$3,898.31</u>

TRANSPORTATION:

Jan 29, 1981: Gas for vehicles, (Field B.C. to Vancouver, B.C.)	\$120.32
Jan 30, 1981: Gas for 2 vehicles (Vancouver to Campbell River), Ferry	\$41.49
charge for 2 vehicles @ \$18.00/vehicle	\$36.00
Feb 2, 1981: Gas for 1 vehicle (Tahsis, B.C.)	\$12.85
Feb 3, 1981: Gas for 2 vehicles (Tahsis, B.C.)	\$55.31
Feb 6, 1981: Boat rental for 3 hours @ \$6/Hour (Tahsis, B.C.)	\$18.00
Feb 7, 1981: Gas for 1 vehicle (Tahsis, B.C.)	\$36.66
Feb 9, 1981: Boat rental for 11½ hours @ \$6/Hour (Tahsis, B.C.)	\$69.00

Feb 10, 1981: Boat rental for 7.5 hours @ \$6/Hour (Tahsis, B.C.)	\$45.00
Feb 13, 1981: Gas for 2 vehicles (Tahsis, B.C.)	\$45.83
Feb 14, 1981: Gas for 2 vehicles (Tahsis to Nanaimo)	\$39.90
Feb 15, 1981: Ferry charge for 2 vehicles @ \$18.00/Vehicle	\$36.00
Feb 16, 1981: Gas for 2 vehicles (Vancouver to Kelowna)	\$41.45
Feb 17, 1981: Gas for 2 vehicles (Kelowna to Field, B.C.)	\$47.28
Tire repair	\$10.00
Feb 1,7,8, and 11, 1981: Helicopter time Vancouver Island helicopters for 10.2 hours @ \$370.00/Hour	\$3,774.00
Jan 29 - Feb 17, 1981: Vehicle rental for 20 days @ \$23.33/Day (\$700.00/Month)	\$420.00
SUB TOTAL	<u>\$5,315.76</u>

GEOCHEMICAL ANALYSIS AND ASSAYS:

Feb 16, 1981: 164 rock samples assayed for Cu, Pb, Zn, Mo, Ag, W, Au, As, Hg, Sb @ \$24.55/Sample	\$4,026.20
Feb 16, 1981: 92 stream sediments assayed for Cu, Pb, Zn, Mo, Ag, W, Au, As, Hg, Sb @ #23.05/Sample	\$2,120.60

Feb 17, 1981: 14 Heavy mineral samples analysed for

Au, As, W, Sb, @ \$91.43/Sample \$1,280.00

SUB TOTAL \$7,426.80

MISCELLANEOUS COST:

Jan 30, 1981: Zinc Zap solution \$30.00

Loggers work boots \$102.50

25 Gunny sacks \$27.50

SUB TOTAL \$160.00

Cost of report preparation \$2,000.00

TOTAL COSTS \$32,750.87

BREAKDOWN OF HEAVY MINERAL COSTS AND RECONNAISSANCE GEOCHEMISTRY

COSTS:

I Heavy Mineral Sampling Costs - 1981

Total = 7 days HVML sampling from Feb 2 to Feb 8, 1981

A) Wages: Feb 2 to Feb 8, 1981

7 days X 2 men = 14 Man/Days

@ \$200.00/day X 14 Man/Days = \$2800.

SUB TOTAL \$2,800.00

B) Food and Accommodations: (in Tahsis)

Feb 2 to Feb 8, 1981

Total bill 4 men/14 days = \$2,843.07

\$2,843.07/4 = \$710.77 per man for 14 days

\$710.77/14 = \$50.77 per Man/Day

\$50.77 X 14 = \$710.77

SUB TOTAL \$710.77

C) Transportation: Feb 2 to Feb 8, 1981

Feb 2, 1981 - gas for 1 truck	\$12.85
Feb 3, 1981 - gas (55.31/2) truck	\$27.66
Feb 6, 1981 - boat rental	\$18.00
Feb 7, 1981 - gas for 1 truck	\$36.66

Vehicle rental for 7 days (Feb 2 to Feb 8/81)
@ \$700.00/Month (30 day month) \$163.33

Helicopter use @ \$370.00/Hour

Feb 7/81 - 1.7 hours	\$629.00
Feb 8/81 - 1.1 hours	\$407.00

SUB TOTAL \$1,294.50

D) Geochemical Analysis

14 HVML samples analysed for Cu, Pb, Zn,

Ag, Au, Hg, (NAS) and As, Sb, W, Au, @

\$91.43/Sample	\$1,280.02
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SUB TOTAL \$1,280.02

TOTAL \$6,085.29

(HVML Costs)

Per sample costs = \$6085.29/14

= \$434.66

II Geochemistry Costs 1981

Total spent (1981) = \$32,750.87

Total geochemistry costs = Total spent - HVML costs
= \$32,750.87 - \$6,085.29
= \$26,665.58

Total collection cost = Total geochemistry costs-

Total Analysis Costs

Total Analysis Costs:

164 rocks @ \$24.55 = \$4,026.20

92 SMSM @ \$23.05 = \$2,120.60

TOTAL = \$6,146.80

= \$26,665.58 - \$6,146.80

= \$20,518.78

No. of Man Days spent of Geochemistry

Neil and Elmer 2 men X 13 days = 26 Man Days

George and Gerry 2 men X 6 days = 12 Man Days

TOTAL + 38 Man Days

Man Day cost for Geochemistry

= Total Collection cost/No. of Man Days

= \$20,518.78/38

= \$539.97

Man Day cost for Geochemistry = \$539.97

III Heavy Mineral Sampling Costs - 1980

July 31/ 1980 to August 5/ 1980 = 6 days

A) Wages:

G. K. Richardson, Geologist

6 days @ \$250.00/Day \$1500.00

Peter Banister

6 days @ \$200.00/Day \$1200.00

SUB TOTAL \$2700.00

B) Food and Accommodations:

Aug 1, 1981 to Aug 5, 1981

Total bill 2 men for 5 days \$324.60

Aug 5, 1981:Lunch - 2 men \$10.75

SUB TOTAL \$335.35

C) Transportation:

July 31, 1980: 2 tires for truck \$163.18

1 headlight \$21.64

August 1, 1980: gas and oil for truck \$14.46

August 2, 1980: gas for truck \$39.31

July 31, 1980 to August 5, 1980:

truck rental @(\$800.00/Month)

6 days \$160.00

August 1, 1980 to August 5, 1980:

boat rental @ \$40/day

for 5 days \$200.00

SUB TOTAL \$598.59

D) Geochemical Analysis:

Aug 20, 1980: 6 Heavy mineral samples analysed

for Au, As, W, Sb, @ \$43.40 + \$7.00 = \$50.00

\$50.50 X 6 \$303.00

SUB TOTAL \$303.00

TOTAL \$3,936.94

IV Geochemistry - 1980

8 rock samples assayed for Cu, Pb, Zn, Mo, Ag, W,

Au, As, Hg, Sb, @ #24.55 each \$196.40

NOTE: Total Cost/Claim = Man Day cost + rock sample cost +
SMSM cost + per sample HVML cost
+ 1980 per sample HVML cost +
1980 Rx sample cost.

APPENDIX I

GEOCHEMICAL ANALYTICAL RESULTS

TAHN OCEAN GEOCHEMICAL DATA FORM

DATE: 1/13/81 LAB: N/A S REPORT NO. EXTRACTION
 PROJECT: WT. USED: VARIOUS METHOD: INAA

PROJECT	YR.	SAMPLE NUMBER	(PPB)	(PPM)	(PPM)	(PPM)	40	45	50	55	60	65	70	75	I.D.																	
			Au	As	Sb	W																										
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	25	30	35	40	45	50	55	60	65	70	75				
		61																40	13	1	4											
		12																X	11	2	2											
		13																X	10	2	9											
		14																X	15	1	2											
		15																X	18	2	8											
		16																170.0	4.9	5	13.0											
		17																X	13	1	3											
		18																17.0	12.0	4	13.3											
		19																5.0	2.4	2	1											
		119																2.0	3.1	1	X											
		111																X	2.0	1	2											
		112																4.2	4.7	1	2											
		113																3.0	5.9	3	4											
		114																6.0	14.0	3	2.2											
		115																5.0	3.2	2	1											
		116																4.7	5.5	1	7											
		117																X	6	1	7											
		119																110.0	2.0	1	3.9											
		119																4.0	2	1	3											
		20																4.0	9	1	2.5											
		21																3.0	7.6	3	3											
		22																X	3.7	5	3											
		23																3.0	16.8	3	7											
		24																6.0	2.1	2	8											
		25																5.0	2.2	3	X											
		26																X	17.0	16	1											
		27																X	2.6	9	3											
		28																4.0	3.4	7	6											
		29																4.0	2.3	9	5											
		39																8.0	13.0	11	2											
		31																X	3.0	11	3											
		32																3.4	2.0	12	2.5											
		33																2.0	1.4	8	2											
		34																7.0	16.1	11	4											
		35																3.0	2.4	18	2											
		36																12.0	8.8	8	1.0											
		37																8.0	1.5	8	X											
		38																14.0	1.5	4	7.6											
		39																3.0	1.6	4	X											
		49																5.8	4.3	6	3.2											
		41																X	1.8	1.6	X											
		42																4.0	16.1	1.5	X											
		43																2.0	1.7	1.6	5.2											
		44																2.4	5.4	1.0	4											
		45																4.0	1.2	1.6	1.2											
		46																1.8	8.7	1	2.9											
		47																4.0	1.2	1.6	4											
		48																12.0	1.7	2	16.8											
		49																7.0	2.9	1.0	8											
		50																3.0	2.1	2	17.0											
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	25	30	35	40	45	50	55	60	65	70	75				

NOTE SAMPLES ON DATA FORM USE CODE AS SAMPLE #

Code Sample + Fraction Vial Weight - Gms.

2162	G1	GDW-0001-35+150HP	1.880
	2	GDW-0001-35+150HN	1.945
	3	" " -150HP	1.792
	4	" " -150HN	2.084
	5	GDW-0003-35+150HP	2.542
	6	" " -35+150HN	2.198
	7	" " -150HP	1.863
	8	" " -150HN	1.918
	9	GDW-0007-35+150HP	1.952
	10	" " -35+150HN	2.011
	11	" " -150HP	1.867
	12	" " -150HN	2.004
	13	GDW-0008-35+150HP	2.229
	14	" " -35+150HN	2.172
	15	" " -150HP	2.007
1762	16	GDW-0008-150HN	1.978
	17	" 0011-35+150HP	2.074
	18	" " -35+150HN	2.206
	19	" " -150HP	2.081
	20	" " -150HN	1.394
	21	" 0015-35+150HP	2.017
	22	" " -35+150HN	2.329
	23	" " -150HP	2.005
	24	" " -150HN	1.682
	25	" 0020-35+150HP	2.043
	26	" " -35+150HN	2.505
	27	" " -150HP	2.080
	28	" " -150HN	2.027

	Code	Sample + Fraction	Vial Weight - Gms.
	G 29	GDW-0023-35+150 HP	2.018
	30	" " -35+150 HN	2.060
AG 3	31	GDW-0023-150 HP	2.132
	32	" " -150 HN	1.988
	33	" 0026-35+150 HP	2.438
	34	" " -35+150 HN	1.780
	35	" " -150 HP	0.782
	36	" " -150 HN	0.517
	37	" 0028-35+150 HP	2.037
	38	" " -35+150 HN	2.175
	39	" " -150 HP	1.570
	40	" " -150 HN	0.853
	41	GDW-0031-35+150 HP	2.172
	42	" " -35+150 HN	2.393
	43	" " -150 HP	2.071
	44	" " -150 HN	1.155
	45	" 0034-35+150 HP	2.219
AG 4	46	GDW-0034-35+150 HN	2.277
	47	" " -150 HP	1.895
	48	" " -150 HN	2.118
	49	" 0036-35+150 HP	2.474
	50	" " -35+150 HN	2.606
	51	" " -150 HP	2.185
	52	" " -150 HN	1.382
	53	" 0038-35+150 HP	2.184
	54	" " -35+150 HN	2.041
	55	" " -150 HP	1.485
	56	" " -150 HN	1.079
	57	" 0040-35+150 HP	2.087
	58	" " -35+150 HN	2.159
	59	" " -150 HP	2.126

Code Sampler Fraction ^{vial} Weight-Gms.

G60 GDW-0040-150HN 1.038

AG 5

61 GDW0042-35+150HP 2.104

62 " " -35+150HN 2.045

63 " " -150HP 2.080

64 " " -150HN 1.379

PAN OCEAN GEOCHEMICAL DATA FORM

DATE: March 4 | LAB: | REPORT NO. 21 - 202 | EXTRACTION: SEE
 PROJECT: | WT. USED: | METHOD: ATTACHED

PROJECT	YR.	SAMPLE NUMBER	Cu ppm	Pb ppm	Zn ppm	Mo ppm	Ag ppm	Au ppb	As ppm	Sb ppm	W ppm	Fe%	U ppm	U ppm	di							
1	2	3	4	5	6	7	8	19	20	25	30	35	40	45	50	55	60	65	70	75		
	81	NBD0094	36	6	85	4	0.2	5	33	1	3											B
		96	24	7	79	2	0.2	3	43	1	2											
		98	28	8	87	3	0.2	5	50	1	3											
		99	14	5	37	4	0.2	3	18	2	3											
		100	26	5	48	3	0.2	3	15	1	3											
		1	24	6	63	3	0.2	3	35	1	3											
		4	43	8	111	3	0.2	3	20	1	3											
		8	63	13	80	3	0.2	3	55	2	3											
		9	42	10	107	4	0.2	5	120	1	2											
		16	72	10	161	4	0.2	20	200	1	3											
		21	48	6	72	4	0.2	3	17	1	2											
		23	41	6	72	5	0.2	3	11	1	2											
		29	123	5	34	2	0.2	3	2	1	3											
		33	142	6	77	1	0.2	5	8	3	4											
		34	133	7	82	2	0.2	5	2	1	3											
		NBD0135	127	4	78	3	0.2	3	2	1	2											
		EAD0001	25	4	73	3	0.2	3	5	1	2											
		2	13	2	32	2	0.2	3	5	1	2											
		3	16	2	17	2	0.2	3	2	1	3											
		6	9	8	16000	4	0.2	3	18	1	2											
		7	4800	2	124	2	1.6	35	2	1	3											
		8	700	8	660	3	0.2	3	13	1	2											
		9	242	5	68	2	0.2	3	6	1	3											
		10	71	2	85	2	0.2	3	2	1	2											
		11	32	8	86	4	0.2	3	22	1	3											
		16	71	1	57	1	0.2	3	2	1	2											
		17	7500	2	70	2	2.4	65	5	1	2											
		19	620	1	72	3	0.2	3	2	1	3											
		21	192	8	46	4	0.2	10	60	1	2											
		22	143	6	58	4	0.2	3	12	1	3											
		24	80	10	15200	5	0.2	3	25	1	3											
		27	5	3	204	5	0.2	3	18	1	2											
		29	55	2	121	4	0.2	3	2	1	3											
		30	182	12	42	3	0.2	3	60	1	3											
		33	1980	6	97	6	0.2	3	6	1	2											
		34	43	4	107	5	0.2	3	2	1	2											
		35	78	2	99	5	0.2	3	2	1	2											
		36	13	4	102	4	0.2	3	25	1	2											
		37	15	4	51	3	0.2	3	1	1	2											
		38	21	6	67	3	0.2	3	6	1	3											
		40	65	3	73	3	0.2	3	3	1	2											
		41	43	4	45	4	0.2	3	2	1	2											
		42	67	4	47	4	0.2	3	11	1	3											
		43	62	6	44	3	0.2	3	7	1	2											
		44	6	4	25	3	0.2	3	2	1	3											
		45	86	2	97	3	0.2	3	2	1	2											
		46	3	12	49	3	0.2	255	1000	1	3											
		47	61	1	129	4	0.2	3	25	1	2											
		50	54	4	24	4	0.2	3	60	1	2											
	81	EAD0052	3	3	142	5	0.2	3	117	1	3											B

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PAN OCEAN GEOCHEMICAL DATA FORM

DATE: March 4 LAB: REPORT NO. 21-202 EXTRACTION: SEE
 PROJECT: WT. USED: METHOD: ATTACHED

PROJECT	YR.	SAMPLE NUMBER	Cu ppm	Pb ppm	Zn ppm	Mo ppm	Ag ppm	Au ppb	As ppm	Sb ppm	W ppm	Fe%	U ppm	U ppm	g							
1	2	3	4	5	6	7	8	19	20	25	30	35	40	45	50	55	60	65	70	75		
81		GDW0033	59	64	100	4	0.2	3	18	1	3											B
		35	15	8	25	7	0.2	3	6	1	3											
		37	26	8	25	5	0.2	3	11	1	4											
		39	36	12	89	5	0.2	3	22	1	3											
		41	54	48	91	4	0.2	10	27	I.S.	2											
		43	31	10	79	4	0.2	3	33	1	3											
		44	29	7	78	5	0.2	3	18	4	2											
		45	35	4	110	7	0.2	3	27	1	4											
		46	21	8	67	4	0.2	3	20	1	3											
		47	23	4	85	4	0.2	3	17	1	3											
		50	80	5	67	4	0.2	3	12	1	3											
		GDW0052	58	6	73	6	0.2	3	20	1	3											
		NBD0005	23	2	55	4	0.2	3	2	1	4											
		6	40	4	84	4	0.2	3	7	1	2											
		7	60	6	94	5	0.2	3	37	1	3											
		14	53	6	90	7	0.2	10	30	1	3											
		18	170	7	82	4	0.2	15	5	4	3											
		19	118	1	66	4	0.2	3	2	3	3											
		20	1	2	11	3	0.2	3	2	1	3											
		21	20	6	37	5	0.2	5	2	1	3											
		22	24	4	43	3	0.2	3	2	1	4											
		23	25	2	34	3	0.2	3	2	1	3											
		30	42	12	65	14	0.2	3	22	2	3											
		35	54	12	89	7	0.2	10	21	2	3											
		36	25	9	85	4	0.2	10	13	1	3											
		37	92	12	198	6	0.2	3	35	1	3											
		39	34	12	88	2	0.2	5	25	1	2											
		40	43	14	280	2	0.2	3	13	1	2											
		44	127	14	49	4	0.2	5	85	3	3											
		46	26	6	78	3	0.2	5	15	1	3											
		48	35	8	103	2	0.2	3	15	3	3											
		52	55	8	88	3	0.2	3	300	1	6											
		55	39	12	91	4	0.2	5	350	1	7											
		56	30	12	99	2	0.2	3	220	1	6											
		58	32	10	78	2	0.2	65	480	1	9											
		61	28	8	89	3	0.2	3	12	1	4											
		64	65	6	111	2	0.2	3	12	2	5											
		65	52	6	131	5	0.2	5	25	1	4											
		68	20	6	117	12	0.2	3	90	1	3											
		69	45	5	177	5	0.2	3	25	1	5											
		74	17	7	34	5	0.2	3	10	1	3											
		75	15	5	21	5	0.2	5	25	1	3											
		79	21	7	24	5	0.2	5	20	1	2											
		82	45	10	65	4	0.2	5	22	4	4											
		85	41	6	65	22	0.2	10	40	1	3											
		86	16	6	53	2	0.2	3	14	1	3											
		87	20	3	57	1	0.2	3	11	1	3											
		88	27	6	64	1	0.2	3	20	1	3											
		89	34	6	110	5	0.2	3	33	1	3											
81		NBD0093	26	6	68	4	0.2	3	20	1	3											B

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PAN OCEAN GEOCHEMICAL DATA FORM

DATE: March 4	LAB:	REPORT NO. 21-202	EXTRACTION: SEE
PROJECT:	WT. USED:	METHOD:	ATTACHED

PROJECT		YR.	SAMPLE NUMBER					Co ppm	Ni ppm	Ba ppm	% Ba	Mn ppm	Hg ppb									
1	2	3	4	5	6	7	8	19	20	25	30	35	40	45	50	55	60	65	70	75		
						81	EAD0004							400								C
							5							425								
							12							125								
							13							110								
							14							40								
							15							35								
							18							70								
							20							240								
							23							215								
							25							135								
							26							260								
							28							110								
							31							75								
							32							60								
							48							80								
							49							70								
							51							50								
							62							75								
							63							35								
							68							60								
							69							55								
							70							60								
							73							60								
							75							40								
							78							50								
							79							60								
							81							55								
							85							35								
							93							100								
							104							40								
							11							85								
							25							50								
							26							170								
							29							105								
							EAD0135							80								
							GDW0006							70								
							9							80								
							12							170								
							13							220								
							14							85								
							16							200								
							18							55								
							19							50								
							21							30								
							22							45								
							24							35								
							27							30								
							29							100								
							30							30								
						81	GDW0032							25								C

PAN OCEAN GEOCHEMICAL DATA FORM

DATE: March 4 | LAB: | REPORT NO. 21-202 | EXTRACTION: SEE
 PROJECT: | WT. USED: | METHOD: ATTACHED

PROJECT	YR.	SAMPLE NUMBER	Cu	Pb	Zn	Mo	Ag	Au	As	Sb	W	Fe%	U	U	B
			ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	
	81	EAD0004	20	6	80	3	0.2	3	10	1	2				
		5	18	20	223	4	0.2	3	12	1	2				
		12	15	6	94	2	0.2	3	10	1	2				
		13	20	8	109	2	0.2	3	7	1	2				
		14	8	4	74	1	0.2	3	5	1	2				
		15	40	20	148	3	0.2	3	50	I.S.	2				
		18	162	4	67	3	0.2	15	7	1	2				
		20	154	4	85	3	0.2	15	8	1	2				
		23	36	6	35	4	0.2	3	13	1	2				
		25	52	8	62	7	0.2	3	28	3	2				
		26	70	8	62	8	0.2	3	53	1	2				
		28	59	10	96	7	0.2	3	40	1	2				
		31	51	6	56	8	0.2	3	20	1	2				
		32	42	8	71	7	0.2	3	15	2	2				
		48	25	4	72	4	0.2	5	17	1	2				
		49	25	8	75	2	0.2	3	11	1	2				
		51	25	4	62	3	0.2	5	55	1	2				
		62	27	6	61	3	0.2	15	100	3	2				
		63	22	4	59	2	0.2	30	57	1	2				
		68	28	4	61	5	0.2	10	55	2	2				
		69	28	6	70	5	0.2	30	80	1	3				
		70	29	3	74	4	0.2	40	90	2	2				
		73	55	7	73	6	0.2	3	60	1	2				
		75	97	7	96	6	0.2	3	25	1	2				
		78	46	6	101	5	0.2	3	14	1	2				
		79	50	8	82	4	0.2	3	8	4	2				
		81	57	6	144	6	0.2	3	22	6	2				
		85	16	8	24	5	0.2	3	7	1	2				
		93	42	8	134	7	0.2	3	32	1	2				
		104	11	4	63	2	0.2	I.S.	15	I.S.	2				
		11	20	8	66	3	0.2	3	15	3	2				
		25	41	6	76	2	0.2	3	12	1	2				
		26	54	16	585	3	0.2	45	180	1	2				
		29	43	14	244	4	0.2	3	50	4	2				
		EAD0135	112	3	54	3	0.2	3	2	1	2				
		GDW0006	107	7	59	5	0.2	5	5	1	3				
		9	91	10	82	4	0.2	3	2	2	2				
		12	57	2	47	4	0.2	3	2	1	2				
		13	58	2	50	4	0.2	3	2	2	2				
		14	29	1	29	3	0.2	5	2	1	2				
		16	26	6	184	4	0.2	5	22	1	3				
		18	25	11	158	3	0.2	10	20	I.S.	2				
		19	38	10	148	3	0.2	3	20	1	3				
		21	40	8	60	7	0.2	3	18	I.S.	3				
		22	33	8	107	2	0.2	3	13	I.S.	2				
		24	30	6	81	4	0.2	5	60	1	2				
		27	26	6	70	4	0.2	5	35	1	3				
		29	71	6	53	5	0.2	3	15	1	3				
		30	58	6	79	6	0.2	3	21	1	2				
	81	GDW0032	53	6	78	6	0.2	3	23	1	4				B

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PAN OCEAN GEOCHEMICAL DATA FORM

DATE: March 4 | LAB: | REPORT NO. 21-202 | EXTRACTION: SEE
 PROJECT: | WT. USED: | METHOD: ATTACHED

PROJECT	YR.	SAMPLE NUMBER	Cu	Pb	Zn	Mo	Ag	Au	As	Sb	W	Fe%	U	U	d
			ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	%	ppm	
			19	25	30	35	40	45	50	55	60	65	70	75	
81		EAD0053	6	4	68	1	0.2	3	7	1	3				B
		54	11	5	114	3	0.2	10	8	1	3				
		55	48	104	510	1	0.2	3	42	1	2				
		56	2	13	46	3	0.2	500	1000	1	3				
		57	6	4	27	2	0.2	5	100	1	2				
		58	2	4	45	4	0.4	5	43	1	2				
		59	6	2	92	2	0.2	3	13	1	2				
		60	2	4	96	3	0.2	3	2	1	2				
		61	5	8	6	5	0.2	3	90	1	2				
		64	22	6	102	1	0.2	3	6	1	2				
		65	4	6	95	2	0.2	3	5	1	3				
		66	85	22	113	3	1.4	2500	240	1	3				
		67	34	3	103	1	0.2	10	13	1	2				
		71	31	5	35	3	0.2	65	12	1	3				
		72	79	3	1080	2	0.2	3	130	1	2				
		74	56	2	98	2	0.2	3	7	1	3				
		76	118	6	193	1	0.2	3	4	1	3				
		77	58	6	61	34	0.2	3	17	1	2				
		80	16	4	75	3	0.2	3	11	1	2				
		82	13	4	90	3	0.2	3	7	1	2				
		83	18	2	109	4	0.2	3	2	1	3				
		84	46	8	26	2	0.2	3	2	1	2				
		86	41	4	59	2	0.2	3	10	1	3				
		87	5	6	45	2	0.2	15	60	1	3				
		88	40	6	75	3	0.2	3	12	1	3				
		89	21	4	35	1	0.2	3	3	1	3				
		90	7	2	80	1	0.2	3	2	1	3				
		91	3	5	31	3	0.2	3	5	1	2				
		92	23	4	68	3	0.2	3	3	1	2				
		94	4	8	44	4	0.2	3	5	1	3				
		95	153	7	60	3	0.2	3	17	1	3				
		96	163	9	36	4	0.2	3	2	1	3				
		97	47	4	51	2	0.2	3	12	1	3				
		98	40	4	48	5	0.2	3	2	1	3				
		99	12	5	276	2	0.2	3	3	1	4				
		100	51	4	48	55	0.2	3	13	1	3				
		1	26	2	43	2	0.2	3	2	1	3				
		2	4	8	34	5	0.2	3	5	1	2				
		3	9	6	32	2	0.2	3	8	1	3				
		5	3	8	31	4	0.2	3	7	1	2				
		6	6	6	89	3	0.2	3	7	1	3				
		7	11	7	57	6	0.4	75	1000	117	3				
		8	2	1	29	2	0.2	3	14	1	3				
		9	5	6	17	7	0.2	30	140	119	4				
		10	2	2	24	1	0.2	3	6	1	2				
		12	21	8	8	9	0.2	3	12	1	2				
		13	17	5	40	3	0.2	3	20	1	2				
		14	22	8	39	14	0.6	3	24	1	3				
		15	5	18	30	4	0.2	3	15	1	3				
81		EAD0116	3	4	21	5	0.2	3	130	3	4				B

PAN OCEAN GEOCHEMICAL DATA FORM

DATE: March 4 LAB: REPORT NO. 21-202 EXTRACTION: SEE
 PROJECT: WT. USED: METHOD: ATTACHED

PROJECT		YR.	SAMPLE NUMBER					Cu ppm	Pb ppm	Zn ppm	Mo ppm	Ag ppm	Au ppb	As ppm	Sb ppm	W ppm	Fe%	U ppm	U ppm	g	
1	2	3	4	5	6	7	8	19	20	25	30	35	40	45	50	55	60	65	70	75	
						81	NBD0029	7	4	4	6	0.2	3	3	1	2					B
							31	7	3	4	4	0.2	3	12	5	2					
							32	3	2	8	7	0.2	3	18	1	2					
							33	3	2	8	0	0.2	3	5	1	2					
							34	3	6	7	4	0.2	3	40	1	2					
							38	3	20	8	0	0.2	3	47	1	2					
							41	3	4	10	1	0.2	3	5	1	2					
							42	69	4	5	2	0.2	3	10	1	2					
							43	30	2	6	5	0.2	3	2	1	2					
							45	103	12	3	2	0.2	3	80	4	2					
							47	18	1	4	5	0.2	3	7	1	3					
							49	40	5	3	6	0.2	3	12	1	3					
							50	21	1	1	3	0.2	10	280	8	7	5				
							51	101	1	6	9	0.2	2	5	2	3	1	2			
							53	112	4	7	2	0.2	5	3	3	1	2				
							54	21	8	6	1	0.2	3	18	1	2					
							57	13	8	2	1	0.2	3	40	1	2					
							59	73	5	3	8	0.2	3	30	1	2					
							60	40	6	2	4	0.2	3	11	1	2					
							62	18	6	5	3	0.2	3	3	1	3					
							63	98	4	3	9	0.2	3	5	1	2					
							66	33	4	4	9	0.2	3	2	1	2					
							67	6	7	2	7	0.2	3	2	2	3					
							70	22	6	1	5	0.2	3	2	2	1	2				
							71	174	4	6	2	0.2	3	3	1	3					
							72	25	11	5	0	0.2	3	70	1	2					
							73	81	5	1	4	0.2	1	5	1	3					
							76	22	1	9	1	0.2	5	2	1	3					
							77	41	1	4	4	0.2	5	5	1	3					
							78	40	6	6	4	0.2	3	70	1	2					
							80	34	2	4	1	0.2	1	5	1	2					
							81	4	8	5	2	0.2	3	2	1	3					
							83	7	2	1	1	0.2	3	4	1	3					
							84	14	10	5	2	0.2	50	20	1	4					
							90	76	6	5	3	0.2	5	50	1	3					
							91	6	5	1	7	0.2	3	1	2	1	2				
							92	6	14	2	0	0.2	3	1	3	1	2				
							95	2	1	3	4	0.2	3	2	1	3					
							97	4	1	2	7	0.2	3	5	9	3					
							102	3	1	7	3	0.2	3	2	8	1	3				
							3	75	4	4	7	0.2	3	2	4	5	3				
							5	6	6	1	5	0.2	5	4	7	1	3				
							6	36	8	1	1	0.2	5	2	5	1	4				
							7	11	2	0	3	0.2	3	4	5	1	3				
							10	26	1	8	2	0.2	3	5	1	3					
							11	7	7	3	9	0.2	3	2	1	3					
							12	90	3	3	9	0.2	5	6	5	1	2				
							13	27	9	1	1	0.2	3	3	1	2					
							14	3	1	2	1	0.2	5	6	4	3					
						81	NBD0115	5	2	3	8	0.2	3	2	1	2					B

**

PAN OCEAN GEOCHEMICAL DATA FORM

DATE: March 4	LAB:	REPORT NO. 21-202	EXTRACTION:	SEE
PROJECT:	WT. USED:	METHOD:	ATTACHED	

PROJECT		YR.	SAMPLE NUMBER					Co ppm	Ni ppm	Ba ppm	Ba %	Mn ppm	Hg ppb								
1	2	3	4	5	6	7	8	19	20	25	30	35	40	45	50	55	60	65	70	75	
						81	NBD0029							15							
							31							70							
							32							20							
							33							25							
							34							30							
							38							40							
							41							25							
							42							25							
							43							20							
							45							60							
							47							80							
							49							50							
							50							40							
							51							190							
							53							35							
							54							25							
							57							25							
							59							30							
							60							20							
							62							20							
							63							10							
							66							15							
							67							10							
							70							15							
							71							15							
							72							25							
							73							10							
							76							15							
							77							20							
							78							35							
							80							20							
							81							30							
							83							25							
							84							60							
							90							40							
							91							25							
							92							200							
							95							20							
							97							20							
							102							20							
							3							20							
							5							15							
							6							15							
							7							30							
							10							15							
							11							15							
							12							25							
							13							20							
							14							35							
						81	NBD0115							25							

PAN OCEAN GEOCHEMICAL DATA FORM

DATE: March 4	LAB:	REPORT NO. 21-202	EXTRACTION:	SEE
PROJECT:	WT. USED:	METHOD:	ATTACHED	

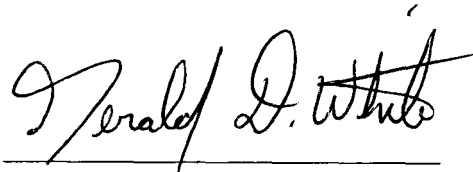
PROJECT	YR.	SAMPLE NUMBER	Cu	Pb	Zn	Mo	Ag	Au	As	Sb	W	Fe%	U	U	c						
			ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm		ppm					
1	2	3	4	5	6	7	8	19	20	25	30	35	40	45	50	55	60	65	70	75	
	81	NBD0117	51	5	61	3	0.2	3	2	1	2										B
		18	83	1	62	2	0.2	3	3	1	3										
		19	6	4	4	5	0.2	3	2	1	3										
		20	46	5	26	1	0.2	3	6	1	3										
		22	43	6	12	5	0.2	3	14	1	3										
		24	515	4	31	3	0.2	3	3	1	3										
		25	2700	2	97	1	0.2	3	2	1	2										
		26	108	1	33	1	0.2	3	2	1	2										
		27	81	1	11	1	0.2	3	2	1	3										
		28	224	1	17	1	0.2	3	2	1	3										
		30	265	1	12	1	0.2	3	12	1	3										
		31	56	1	23	1	0.2	3	2	1	2										
		NBD0132	97	5	39	1	0.2	3	2	1	2										
		EAD0036	14	2	87	1	0.2	3	55	1	3										
		74	60	2	68	2	0.2	3	5	1	2										
	81	EAD0076	247	4	90	9	0.2	3	14	1	2										B
1	2	3	4	5	6	7	8	19	20	25	30	35	40	45	50	55	60	65	70	75	

I.S. denotes 'insufficient sample'.
 * detection limit on a small sample for Au
 **Ba interference noted on Sb

AUTHOR'S QUALIFICATIONS

I, G. D. White of 300-5th Avenue SW, Calgary, Alberta

- Am a graduate of the University of Manitoba (1979) with a B. Sc. Degree in Geology
- Have worked in the Mineral Exploration Field with various companies since 1975 as a Junior Assistant Geologist, Senior Assistant Geologist and Geologist
- Am presently employed by Pan Ocean Oil Ltd. as a Mineral Geologist

A handwritten signature in cursive script that reads "Gerald D. White". The signature is written in dark ink and is positioned above a horizontal line.

G. D. White,

Geologist

AUTHOR'S QUALIFICATIONS

I, G.E. Chabot of 300-5th Avenue SW, Calgary, Alberta state that:-

- Am a 1977 graduate of Lakehead University, Thunder Bay, Ontario with a B. Sc. Degree in Honours Geology.
- Have been actively and continuously engaged in the practice of mineral exploration for at least four years.
- Have supervised and performed the work described in this report.

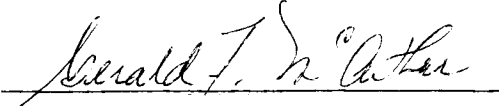
George E. Chabot
G. E. Chabot

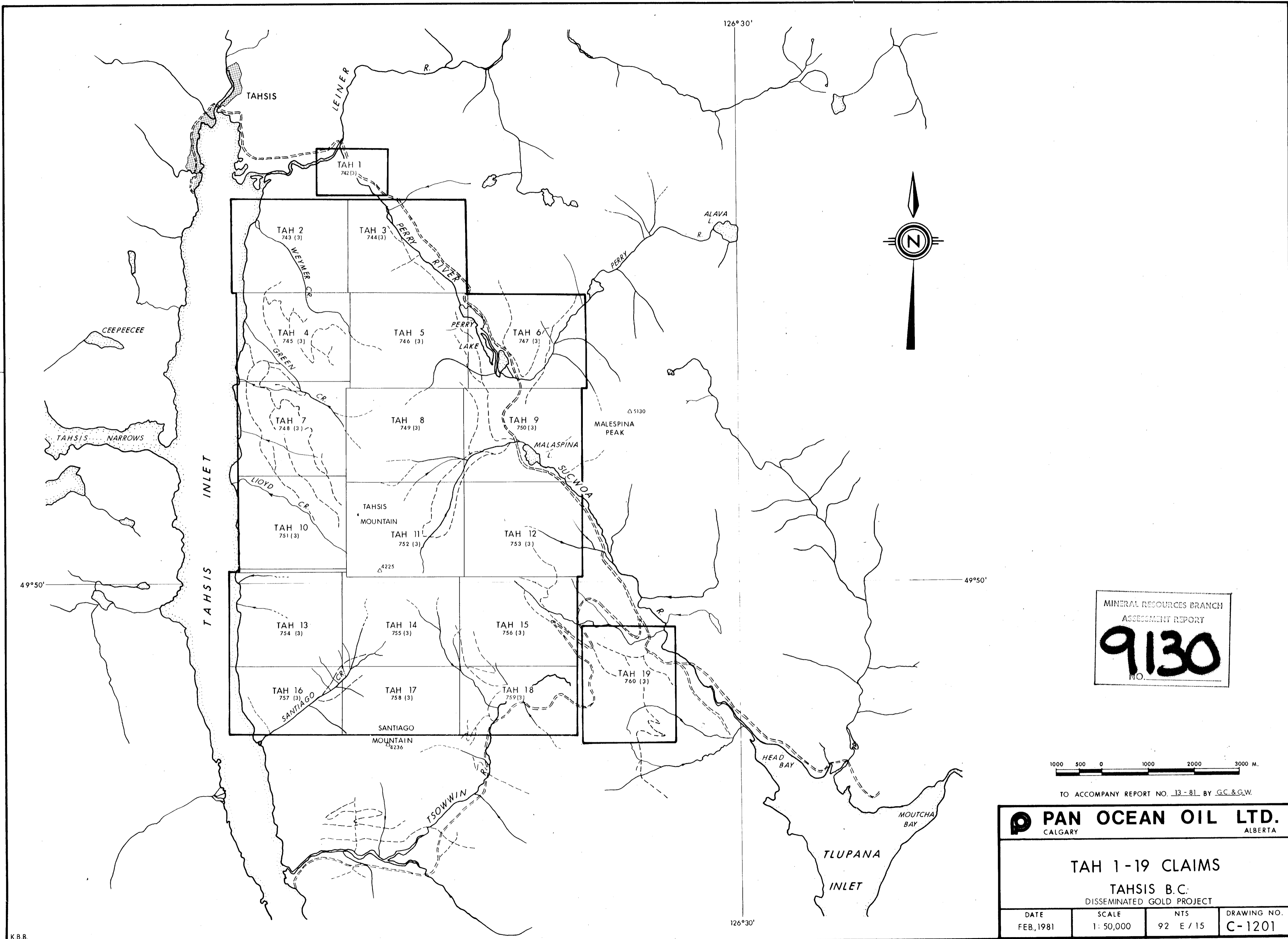
Geologist

STATEMENT OF QUALIFICATIONS

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

- I am an advanced geologist residing at 111 Chelsea Street N.W., Calgary, Alberta and am currently employed by Pan Ocean Oil Ltd. of 300-5th Avenue S.W., Calgary, Alberta
- I graduated from the University of British Columbia, Vancouver. British Columbia in 1973 with a B.Sc Degree in Geology and have practiced my profession since that time.
- I supervised the 1981 field work carried out by G. White and G. Chabot for Pan Ocean Oil Ltd. which forms the basis for this report.
- The entire program was conducted under the supervision of R.J. Bailes, P. Geologist, Manager of Base and Precious Metals.



Gerald F. McArthur, Geologist
Pan Ocean Oil Ltd.

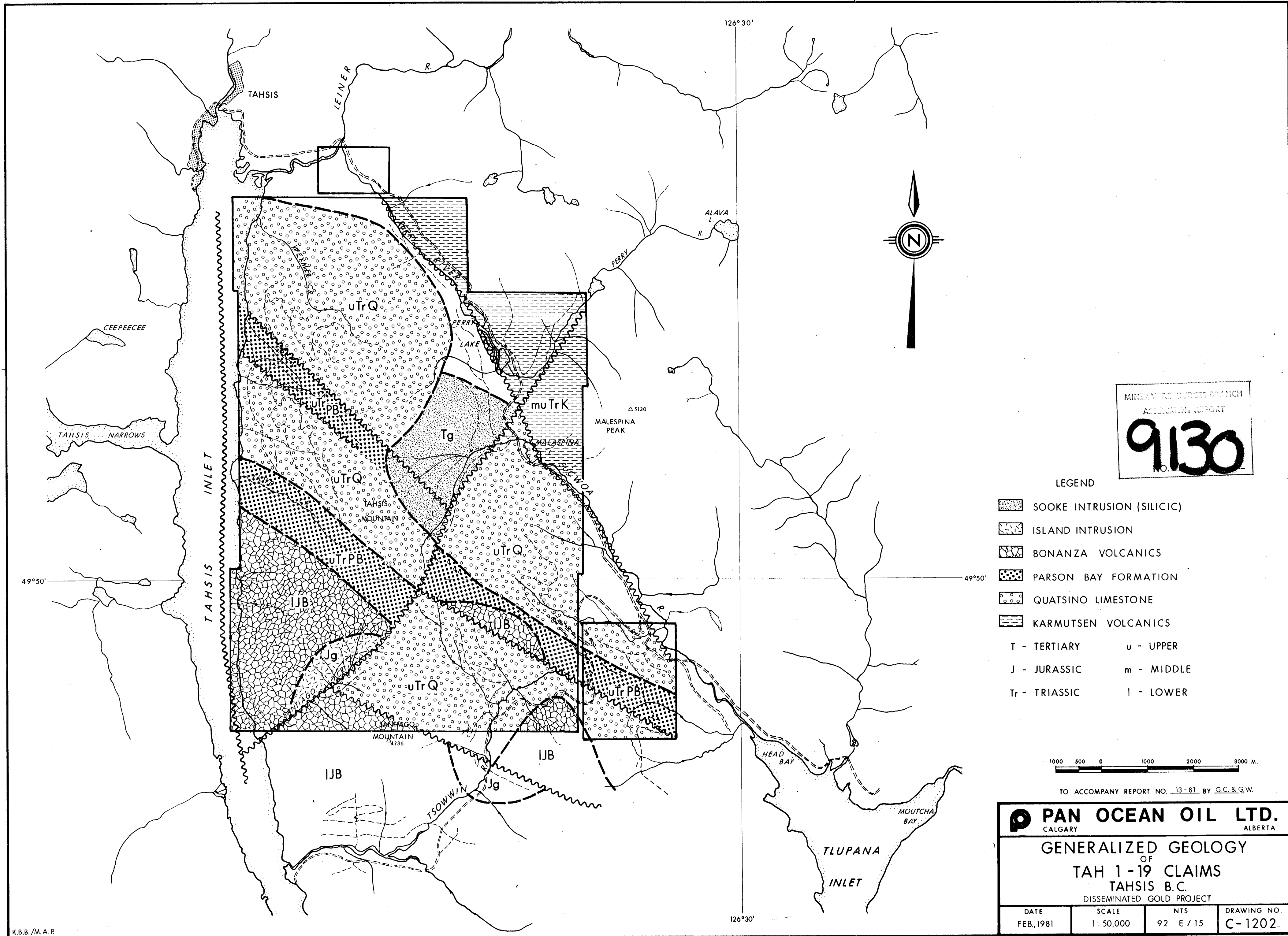


MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
9130
NO.

1000 500 0 1000 2000 3000 M.

TO ACCOMPANY REPORT NO. 13-81 BY G.C. & G.W.

 PAN OCEAN OIL LTD. CALGARY ALBERTA			
TAH 1-19 CLAIMS TAH SIS B.C. DISSEMINATED GOLD PROJECT			
DATE FEB, 1981	SCALE 1: 50,000	NTS 92 E / 15	DRAWING NO. C-1201



MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
9130
No.

LEGEND

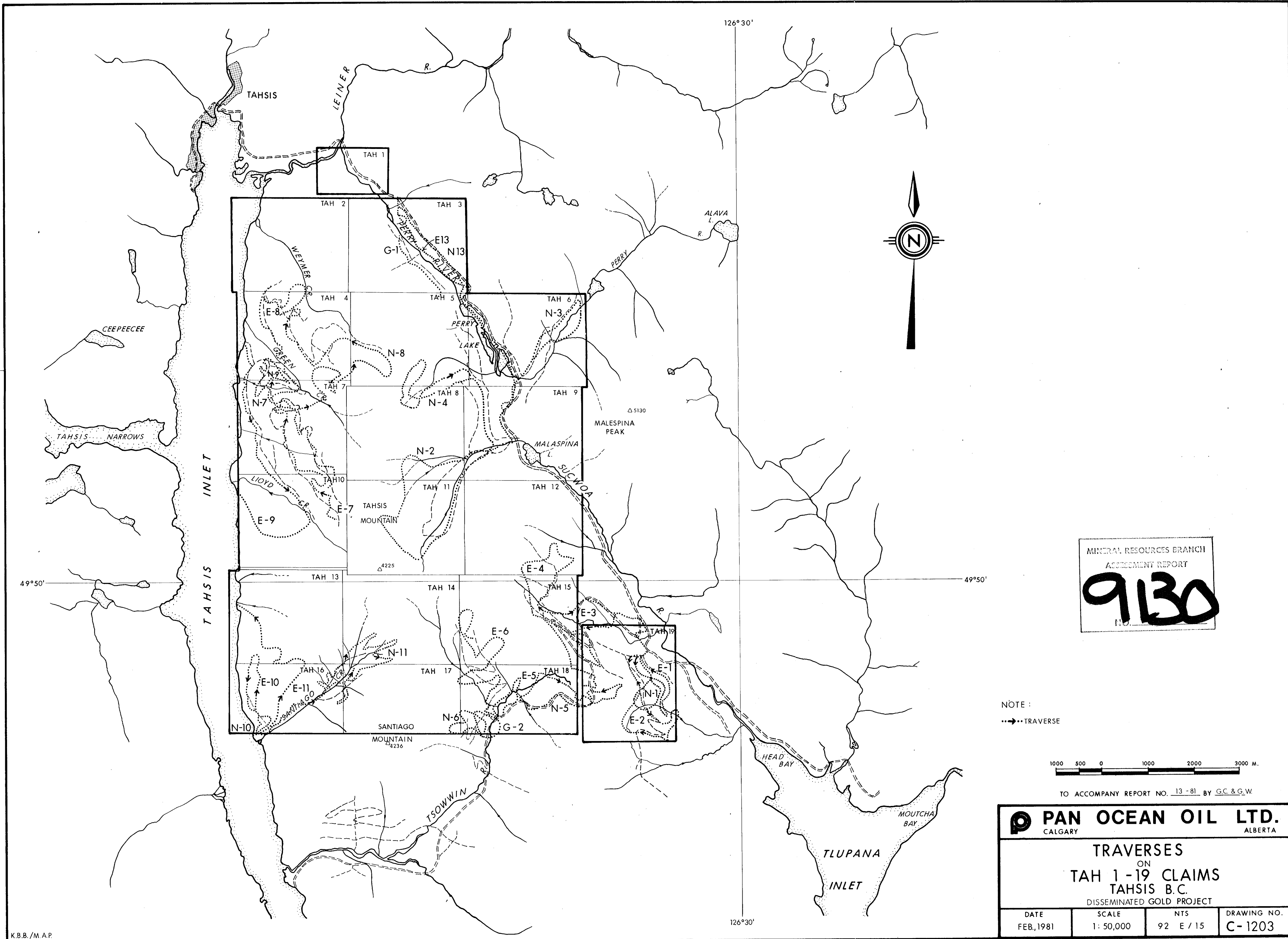
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- ISLAND INTRUSION
- BONANZA VOLCANICS
- PARSON BAY FORMATION
- QUATSINO LIMESTONE
- KARMUTSEN VOLCANICS

- T - TERTIARY u - UPPER
- J - JURASSIC m - MIDDLE
- Tr - TRIASSIC l - LOWER



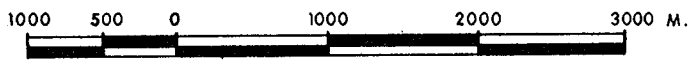
TO ACCOMPANY REPORT NO. 13-81 BY G.C. & G.W.

PAN OCEAN OIL LTD. <small>CALGARY ALBERTA</small>			
GENERALIZED GEOLOGY <small>OF</small> TAH 1-19 CLAIMS TAHSIS B.C. <small>DISSEMINATED GOLD PROJECT</small>			
DATE FEB, 1981	SCALE 1: 50,000	NTS 92 E / 15	DRAWING NO. C-1202




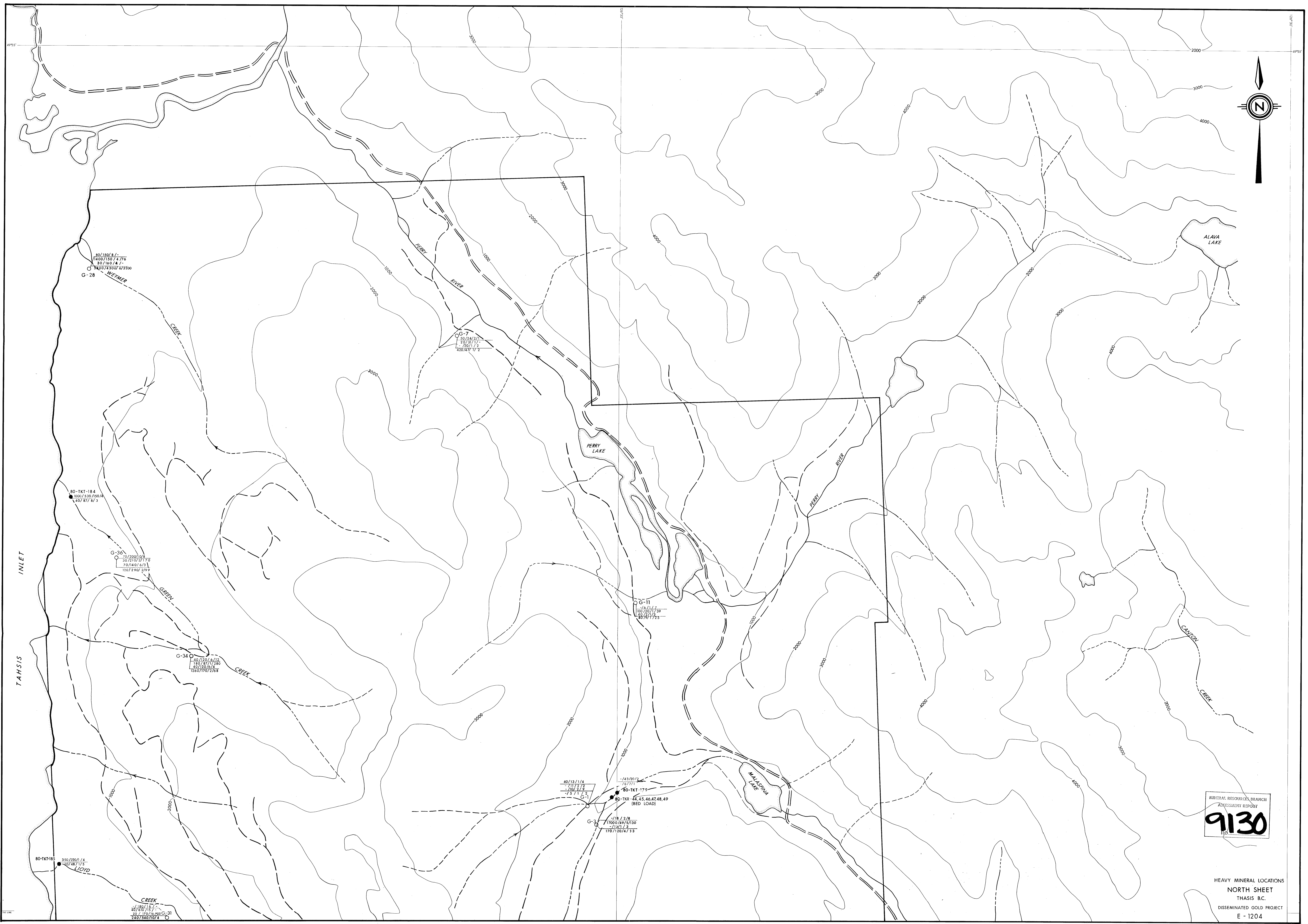
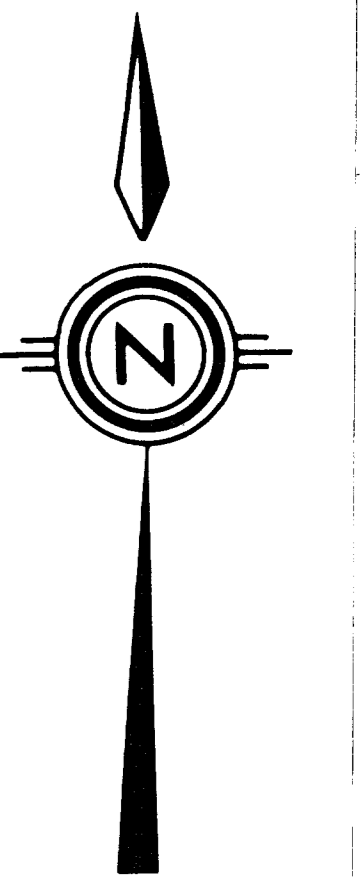
MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
9130
NO.

NOTE:
--->--- TRAVERSE



TO ACCOMPANY REPORT NO. 13-81 BY G.C. & G.W.

 PAN OCEAN OIL LTD. CALGARY ALBERTA			
TRAVERSES ON TAH 1-19 CLAIMS TAHSIS B.C. DISSEMINATED GOLD PROJECT			
DATE FEB, 1981	SCALE 1: 50,000	NTS 92 E / 15	DRAWING NO. C-1203



30/300/8/-
1400/150/4/776
30/160/4/-
3400/74300/6/3500
G-28

30/24/11/-
10/3/11/-
700/1/2
420/7/1/2
G-7

30/11/11/-
100/20/1/39
30/78/1/25
G-11

30/170/6/12
110/87/1280
40/180/6/4
120/170/2765
G-34

40/10/1/4
111/1/2
70/1/2/2
12/1/1/2
G-1
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40/180/6/4
120/170/2765
G-34
170/120/4/33

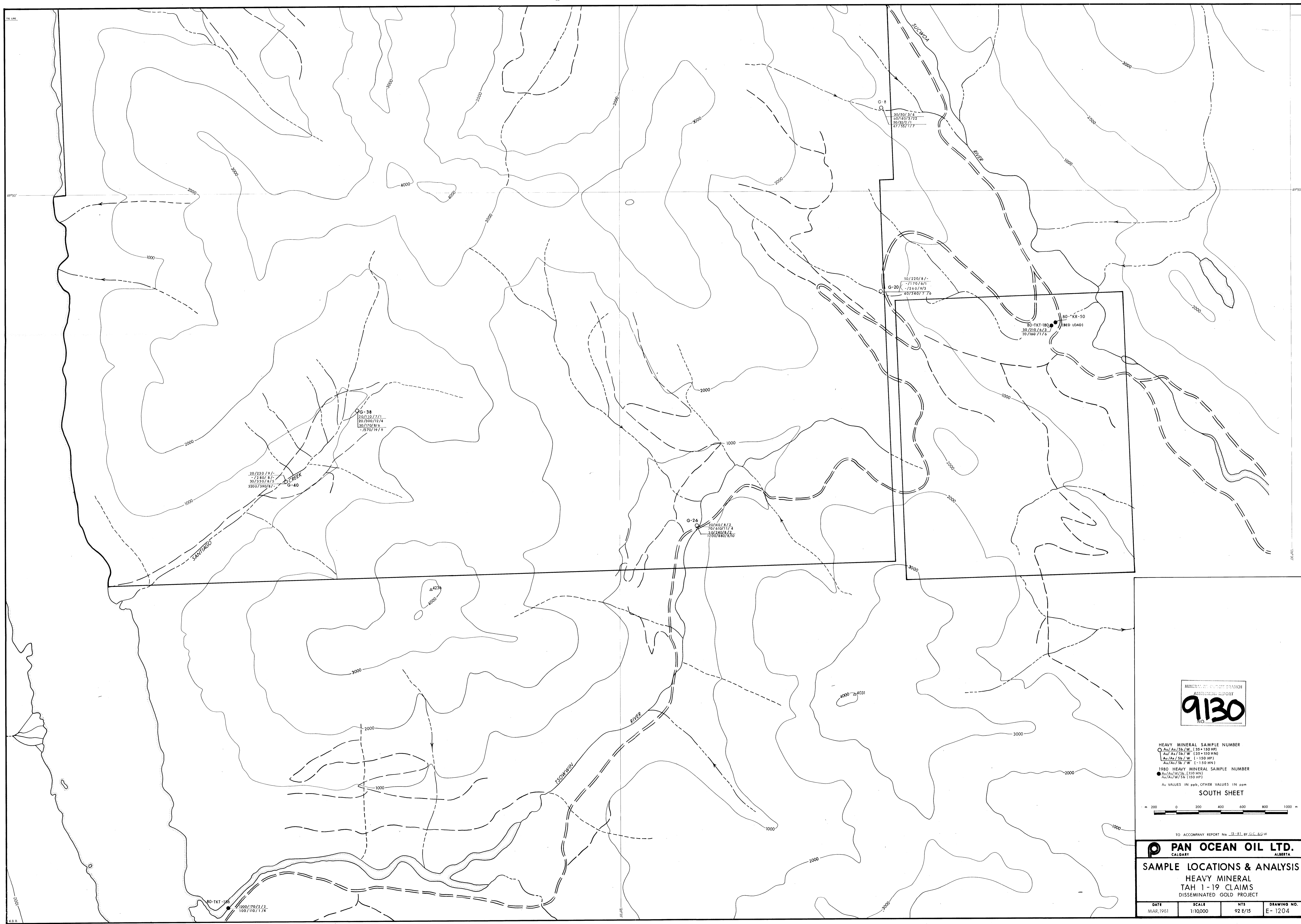
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14/771
80-TKT-179
80-TKR-44,45,46,47,48,49
(BED LOAD)

18/2/8
1700/49/570
715/1/3
170/120/4/33

INLET
TANISIS

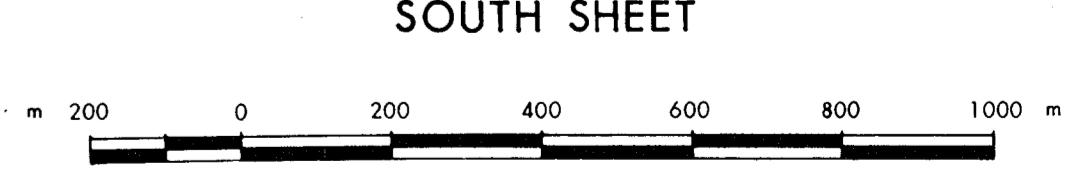
MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
9130
100

HEAVY MINERAL LOCATIONS
NORTH SHEET
THASIS B.C.
DISSEMINATED GOLD PROJECT
E - 1204



MINISTRY OF ENERGY
ACCESSION REPORT
9130
NO.

HEAVY MINERAL SAMPLE NUMBER
 Q Au/As/Sb/W (35+150 HN)
 Au/As/Sb/W (35+150 HN)
 Au/As/Sb/W (-150 HN)
 Au/As/Sb/W (-150 HN)
 1980 HEAVY MINERAL SAMPLE NUMBER
 ● Au/As/W/Sk (150 HN)
 Au/As/W/Sk (150 HN)
 Au VALUES IN PPM, OTHER VALUES IN PPM

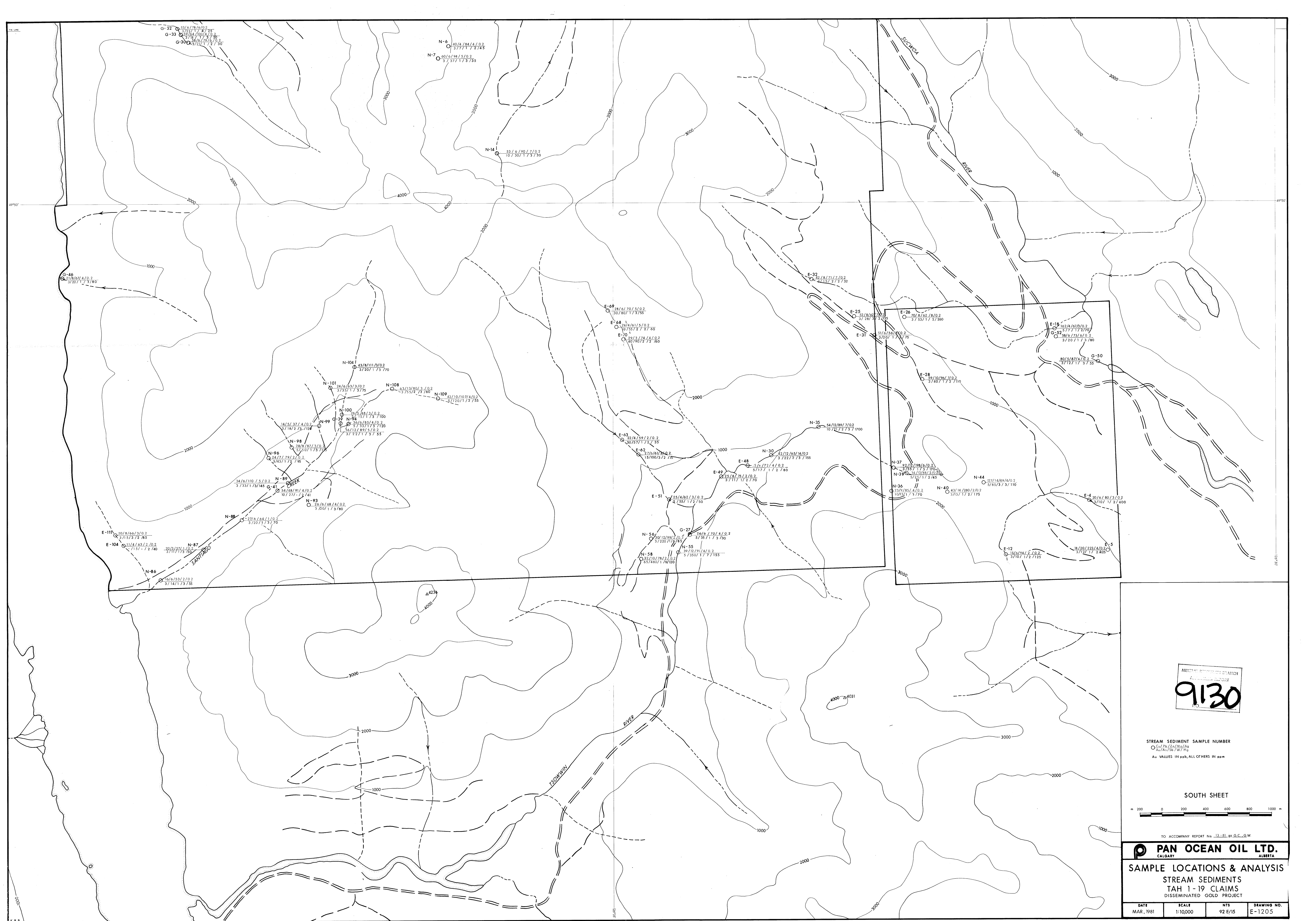


TO ACCOMPANY REPORT No. 33-81 BY J.C.C. & W.

PAN OCEAN OIL LTD.
CALGARY ALBERTA

SAMPLE LOCATIONS & ANALYSIS
HEAVY MINERAL
TAH 1-19 CLAIMS
DISSEMINATED GOLD PROJECT

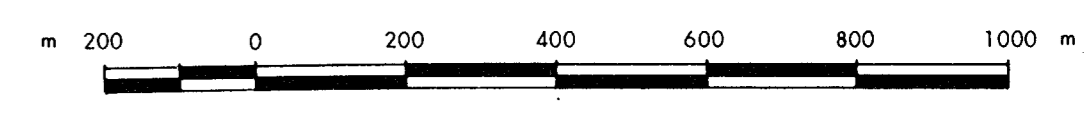
DATE MAR, 1981	SCALE 1:10,000	NTS 92 E/15	DRAWING NO. E-1204
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MICROMER RESEARCH DIVISION
ANALYSIS REPORT
9130

STREAM SEDIMENT SAMPLE NUMBER
 ○ Cu / Pb / Zn / Ni / Hg
 ● Au / As / Se / W / Bi
 Au VALUES IN PPB, ALL OTHERS IN PPM

SOUTH SHEET

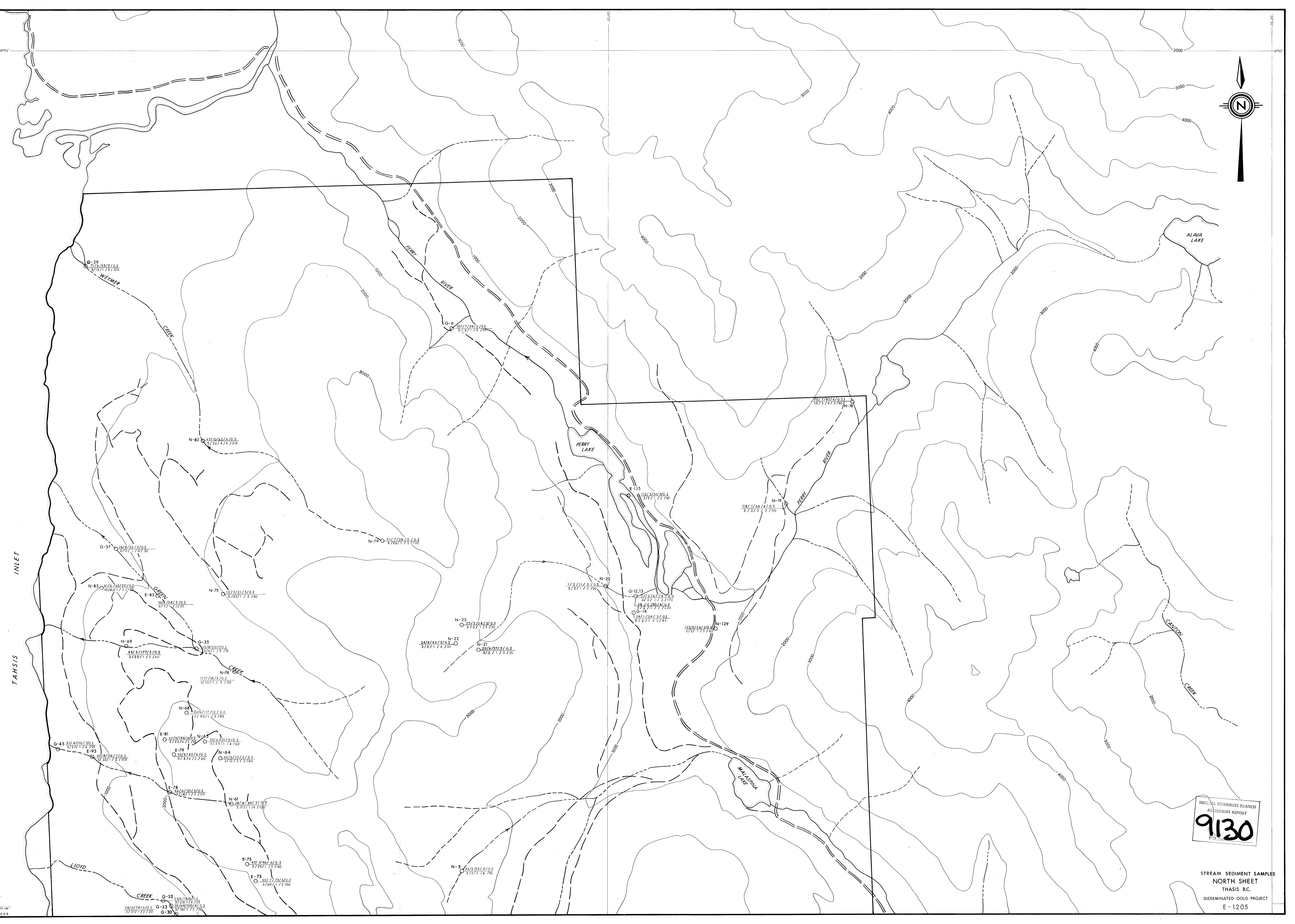
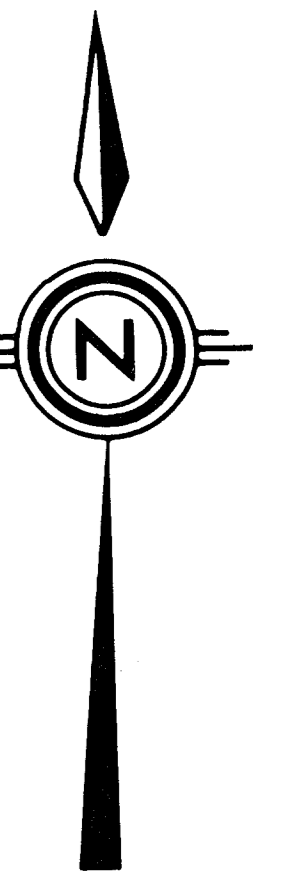


TO ACCOMPANY REPORT No. 13-81 BY G.C., G.W.

PAN OCEAN OIL LTD.
CALGARY ALBERTA

SAMPLE LOCATIONS & ANALYSIS
STREAM SEDIMENTS
TAH 1-19 CLAIMS
DISSEMINATED GOLD PROJECT

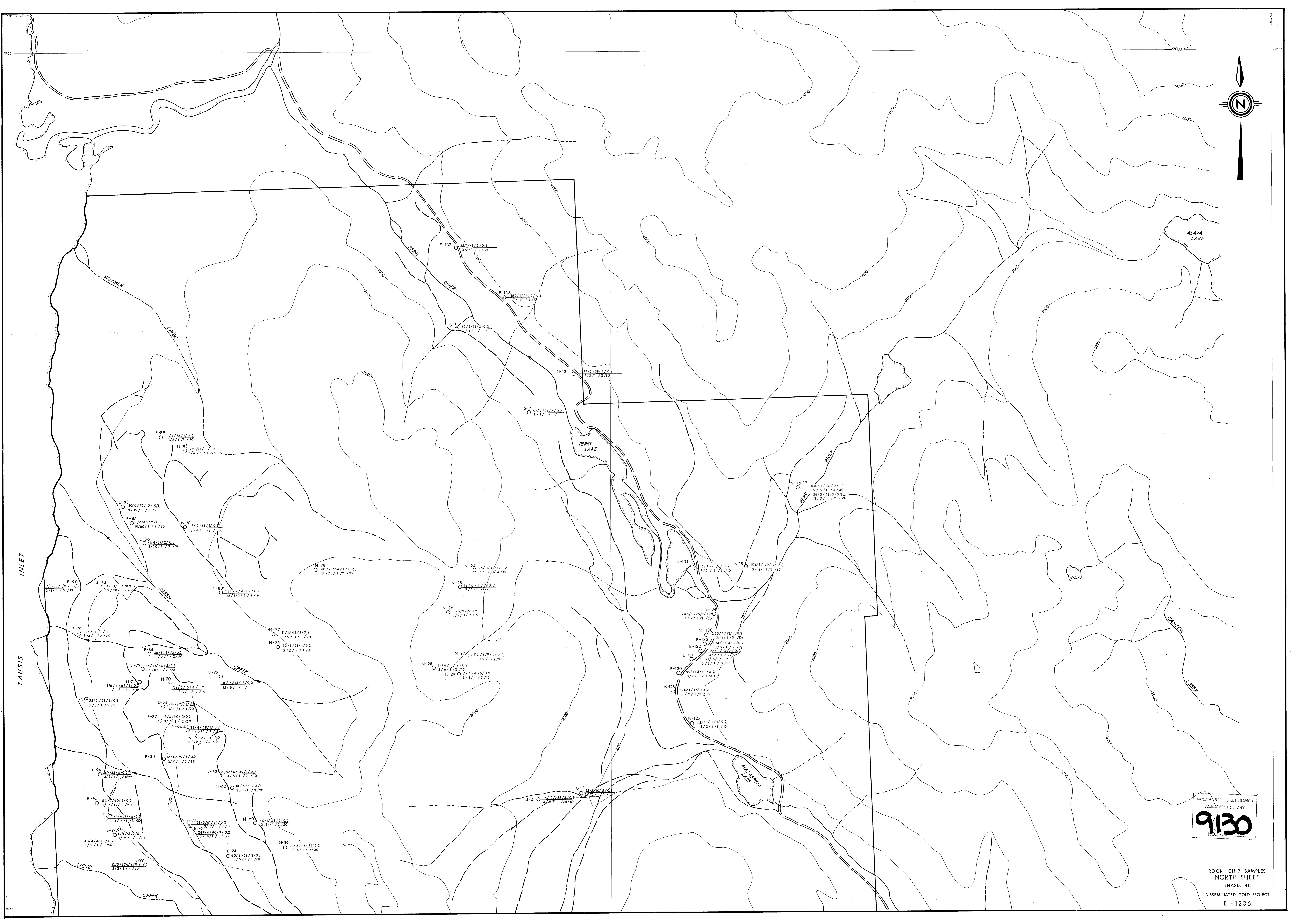
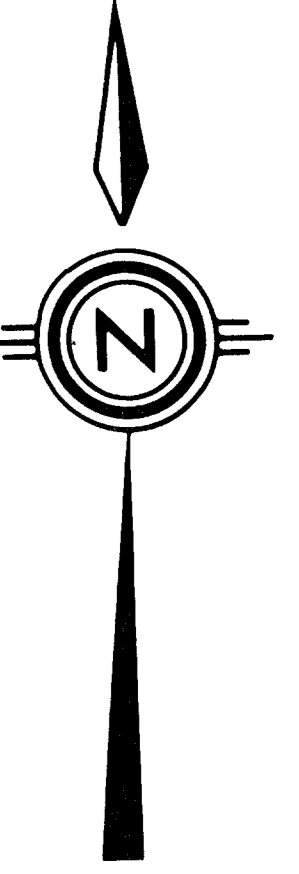
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MINECRAZ RESOURCES BRANCH
ASSESSMENT REPORT
9130
NO.

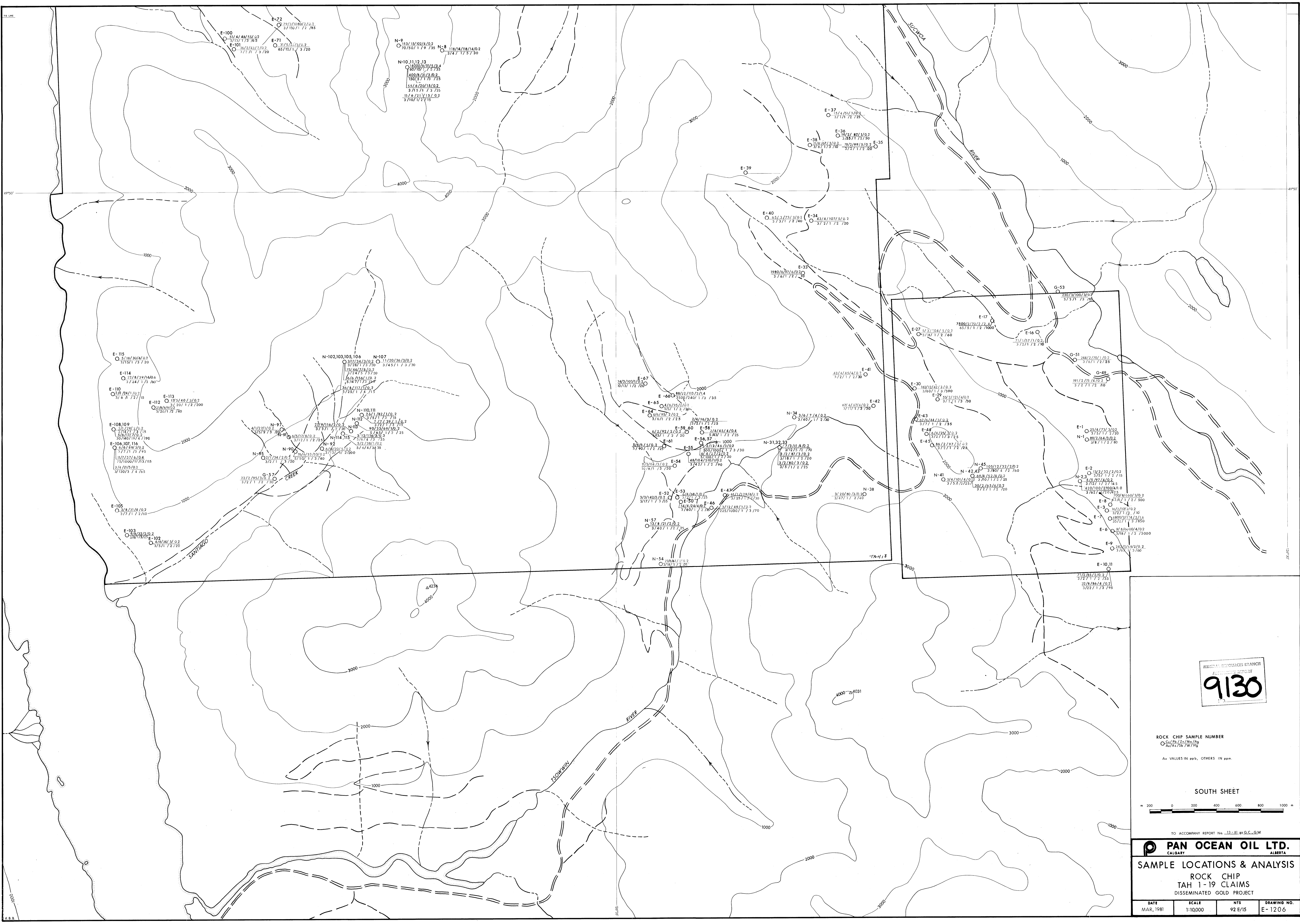
STREAM SEDIMENT SAMPLES
NORTH SHEET
THASIS B.C.
DISSEMINATED GOLD PROJECT
E-1205

FILE LINE
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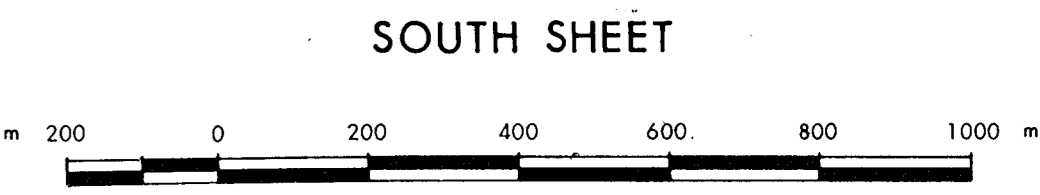
MINERAL RESOURCES BRANCH
ASSAYING REPORT
9130
NO.

ROCK CHIP SAMPLES
NORTH SHEET
THASIS B.C.
DISSEMINATED GOLD PROJECT
E - 1206



MINERAL RESOURCES BRANCH
 9130

ROCK CHIP SAMPLE NUMBER
 Au Values in ppb, OTHERS in ppm



TO ACCOMPANY REPORT No. 13-81 BY D.C.G.W.

PAN OCEAN OIL LTD.
 CALGARY ALBERTA

SAMPLE LOCATIONS & ANALYSIS
 ROCK CHIP
 TAH 1-19 CLAIMS
 DISSEMINATED GOLD PROJECT

DATE MAR, 1981	SCALE 1:10,000	ITS 92 E/15	DRAWING NO. E-1206
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