

85-431-14321
06/86

GEOLOGICAL AND GEOCHEMICAL
REPORT

on the

ZANDU CLAIM GROUP

for

YUKON GOLD PLACERS LTD

OSOYOOS MINING DIVISION

NTS 92H/08E

FILMED

LATITUDE 49°24'

LONGITUDE 120°04'

F. DI SPIRITO, B.A.Sc., P.ENG
N.J. HULME, B.Sc.

GEOLOGICAL BRANCH
ASSESSMENT REPORT

14,321

TABLE OF CONTENTS

PART I

Summary and Conclusions	i
Recommendations	ii

PART II

Introduction	1.
Property	2.
Location and access	2.
Physiography	3.
History	3.
Regional Geology and Mineralization	5.
Local Geology and Mineralization	7.
Geochemistry	8.
Rock Sample Descriptions	9.
Recommendations	10.
Cost Estimate of Recommended Programme	12.
Bibliography	13.
Certificate	14.

APPENDIX

Assay results

ILLUSTRATIONS

Figure 1.	Location Map
Figure 2.	Regional Geology and Claim Map

MAPS IN POCKET

Map 1.	Geochemistry
--------	--------------

PRELIMINARY REPORT
for
YUKON GOLD PLACERS LTD
on the
ZANDU CLAIM GROUP

PART I

SUMMARY AND CONCLUSIONS:

The Zandu Group consists of 26 contiguous mineral claims. They are located in the Hedley area which was formerly one of the largest gold producers in North America. These claims adjoin the Hedley Mascot crown grants which is undergoing an extensive drilling programme and a production feasibility study.

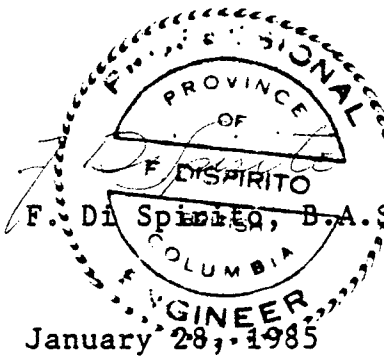
The area has been given considerable attention due to the recent exploration and drill programmes of Mascot Gold Mines, Cominco, and Placer Developments Ltd. The 1984 exploration programme of Mascot Gold is budgeted at \$3.5 million and will try to increase 1983 reserves at the Nickel Plate Mine from 500,000 tons grading .288 oz/ton gold to more than a million tons of a similar grade. Recent assays have extended this ore zone near the surface and have established a zone 1370 meters by 120 meters that is open on both ends as well as down dip.

The geological environment of the Zandu Claim Group is similar to the Nickel Plate Mine. Encouraging results have been obtained from the preliminary exploration programme carried out on the Zandu and Yeti claims which have outlined areas with anomalous gold values. A systematic exploration programme to locate a source of mineralization similar to Nickle Plate Mines and to test areas of potential gold bearing zones is, therefore, recommended on the ZANDU CLAIM GROUP.

RECOMMENDATIONS

A three stage programme of geochemical and geophysical surveys, sampling and trenching, followed by diamond drilling is recommended. The total cost of the three stages is estimated at \$ 215,000.

Respectfully submitted,



A circular professional seal for the Province of Ontario. The outer ring contains the text "PROFESSIONAL ENGINEER" at the top and "ONTARIO" at the bottom. Inside the ring, it says "PROVINCE OF" at the top and "COLUMBIA" at the bottom. In the center, there is a signature "F. Di Spirito" and the name "F. DI SPIRITO" below it. The seal is stamped over the text "F. Di Spirito, B.A.Sc., P.Eng".

F. Di Spirito, B.A.Sc., P.Eng

January 28, 1985

PRELIMINARY REPORT
for
YUKON GOLD PLACERS LTD
on the
ZANDU CLAIM GROUP

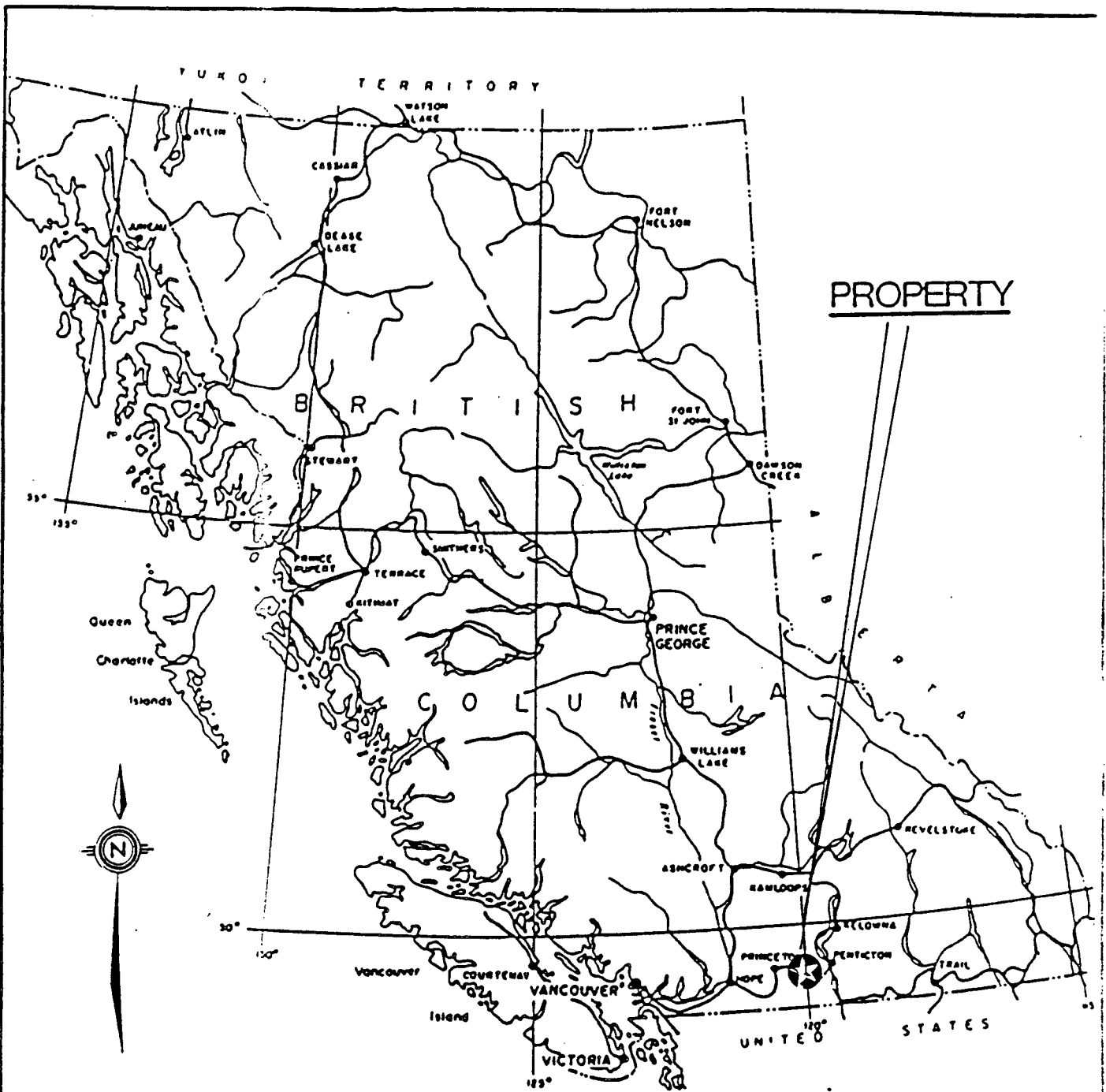
PART II

INTRODUCTION

The writer was retained on behalf of YUKON GOLD PLACERS LTD, the owner of the property, to report on the ZANDU CLAIM GROUP located in Hedley, B.C.

This area, formerly host of one of the most productive gold mines in Canada, has recently acquired considerable interest due to the diamond drill programme carried out by Mascot Gold Mines at the Nickel Plate Mine and the recent interest by Cominco in the Apex Mountain area as well as the optioning of the Good Hope Resources properties by Placer Developments which has resulted in the staking of surrounding ground.

The Zandu and Yeti claims adjoin the Mascot Gold claims which were the highest gold producers in the area.



PROPERTY

BROHM DEVELOPMENTS LTD

YUKON GOLD PLACERS LTD

ZANDU GROUP

OSOYJOS M.D.

LOCATION MAP



SCALE 1:6,300,000	DATE JAN 85	NTS 92 H8E	JOB NO. 264	FIGURE 1.
----------------------	----------------	---------------	----------------	--------------

Information for this report was compiled from various publications and reports available for the area, property visits to adjoining claims in the area, as well as a report and information supplied by N.J. Hulme, geologist, compiled from a programme of geological mapping and sampling on this property in November and December, 1984.

PROPERTY

The ZANDU CLAIM GROUP is 2 contiguous mineral claims consisting of 26 units covering approximately 1,560 acres located in the Osoyoos Mining Division, NTS 92H/8. Particulars are as follows:

<u>CLAIM NAME</u>	<u>RECORD NO.</u>	<u>NO. OF UNITS</u>	<u>EXPIRY DATE</u>
ZANDU	2036	6	MAY 31, 1985
YETI	2143	20	DECEMBER, 1985

Any legal or title aspects pertaining to these claims are beyond the scope of this report.

LOCATION AND ACCESS

The Zandu Claims are located approximately 3 km north of Hedley, B.C. at Latitude 49°24', and Longitude 120°04'. Hedley is located 340 km east of Vancouver by road.

The claims are accessed by a dirt road which follows Hedley (20 mile) creek north along the east side of the river. The bridges are washed out along the river making the last kilometer difficult. The claims can also be accessed from the north by the same road.

PHYSIOGRAPHY

The claims are situated on the steep northwest slope of Aberdeen Ridge which leads down to Hedley Creek with elevations varying from 5300 feet to approximately 2200 feet. Stenwinder Mountain is located on the west side of the valley.

Steep, rocky slopes with occasional plateaus and some coniferous stands of timber cover most of the claims. Annual precipitation varies with the elevation in this "dry" climate with an average of about 30 cm per year. Exploration work can be performed most of the year with the exception of the winter months with snow commencing in October in the higher ground.

HISTORY

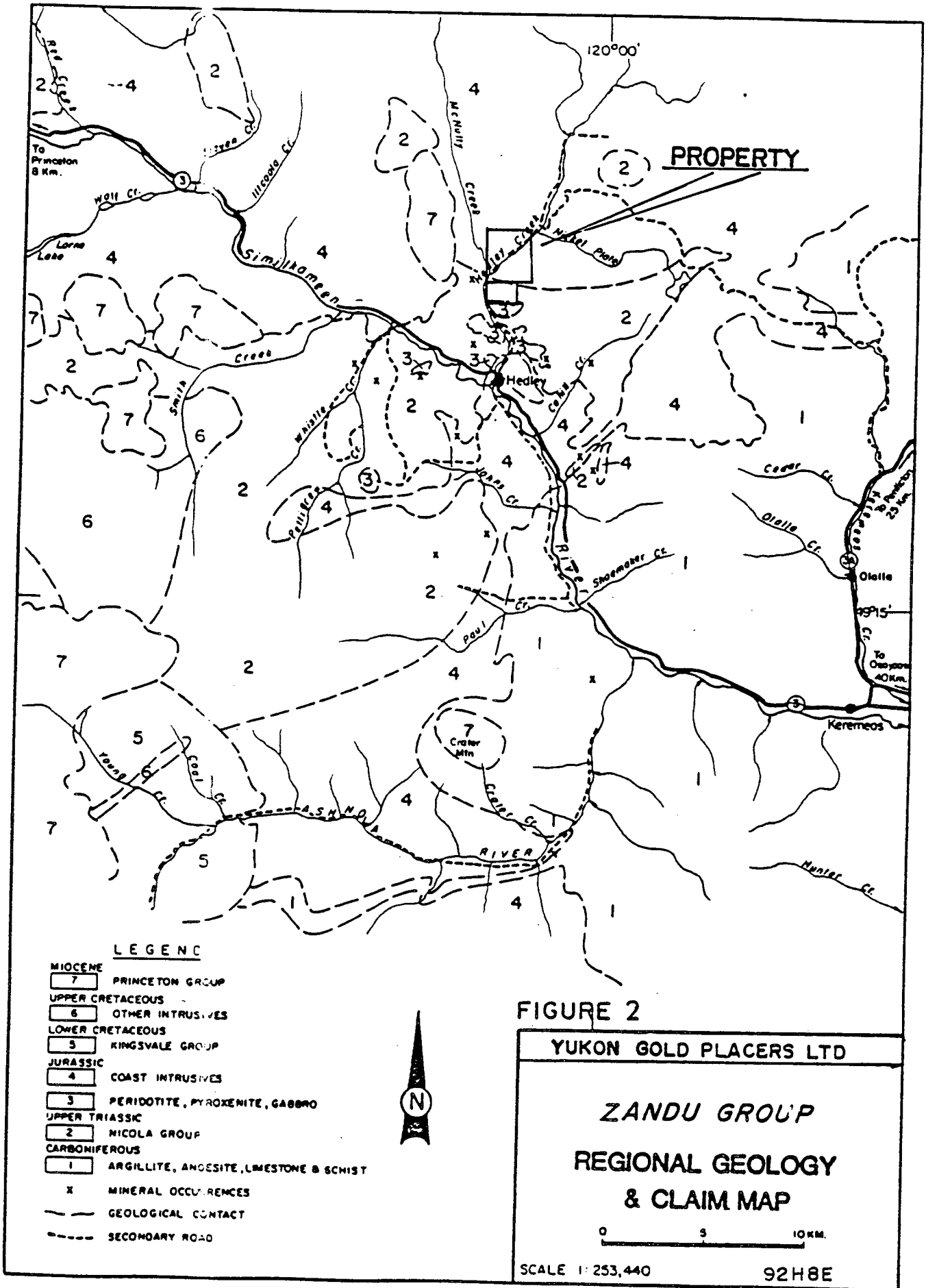
The discovery of placer gold in the Similkameen River in the 1860's lead prospectors to the Nickel Plate Mine which was staked in 1897.

Production commenced in 1905 with the forming of the Yale Mining Company, backed by New York money, until operations were taken over by the Hedley Mining Company in 1909.

Reserves were mined until 1930 when the orebodies were believed to be exhausted. Paul Billingsley, a geological engineer from Denver, headed a team of geologists that commenced mapping the underground workings and interpreting the geological complexities until a new company called the Kelowna Exploration Company Ltd was formed, again backed by a group of New York financiers. After an extensive diamond drill programme was completed, production recommenced in 1934 continuing until reserves were mined out in 1955.

The Mascot Fraction, an 8 acre claim which was staked by H. Woods of Hedley in 1934, was sold to a Vancouver group who formed Hedley Mascot Mines. This small fraction produced 223,000 ounces of gold until 1949.

The total production of gold from the area amounted to 1,730,000 ounces with 188,000 ounces of silver and 4,000,000 pounds of copper from the Nickel Plate and Mascot Mines. The ZANDU CLAIM GROUP adjoins the Mascot Gold claims. The recent exploration programmes of Mascot Gold Mines, Placer Developments, and



LEGEND

- MIOCENE**
- 7 PRINCETON GROUP
- UPPER CRETACEOUS**
- 6 OTHER INTRUSIVES
- LOWER CRETACEOUS**
- 5 KINGSVALE GROUP
- JURASSIC**
- 4 COAST INTRUSIVES
- 3 PERIDOTITE, PYROXENITE, GABBRO
- UPPER TRIASSIC**
- 2 NICOLA GROUP
- CARBONIFEROUS**
- 1 ARGILLITE, ANDESITE, LIMESTONE & SCHIST
- x MINERAL OCCURRENCES
- - - - - GEOLOGICAL CONTACT
- SECONDARY ROAD

FIGURE 2

YUKON GOLD PLACERS LTD

ZANDU GROUP

REGIONAL GEOLOGY & CLAIM MAP

0 5 10 KM.

SCALE 1:253,440 92H8E

Cominco have sparked a new interest to take a closer look at the surrounding areas for new orebodies. As a result of the current drilling programme of Mascot Gold, a new ore zone 1370 meters by 120 meters that is open on both ends and down dip has been established.

REGIONAL GEOLOGY AND MINERALIZATION

The Hedley area is underlain by the Nicola volcanics and sediments of Triassic age which have been intruded by the Jurassic Coast Intrusives.

Strong tectonic pressure from the east and west caused a series of anticlinal and synclinal folding, the axes of which strike N 15 - 20 E and are cut in places by faults. Various stocks, dikes and sills of diorite, gabbro, and granodiorite appear to be channels for hydrothermal solutions responsible for mineralization in these folded structures. The mineralization is related to various structural controls such as faulting with no vein deposits occurring in the Nickel Plate Mine.

The Nickel Plate Formation which is composed of limestone, quartzite and breccia is the host to most of the mineralization in the area.

The hydrothermal solutions responsible for the mineralization in the Nickel Plate Mountain formations probably emanated from a large intrusive body lying along Hedley Creek. These solutions migrated along fault planes where they were channeled through fissures, sills and dikes. Most of the mineralization occurs along fractured folds and is related to porphyritic intrusions.

Arsenopyrite, found in a skarn composed of garnet, pyroxene, quartz, epidote, and occasional garnetite, is associated with all the ore produced in the Hedley area. In the Apex area gold, copper and silver are associated with arsenopyrite, pyrrhotite and chalcopyrite.

There are various controlling factors for mineralization within the Nickel Plate deposit which include:

- (1) Favourable beds within the Nickel Plate Formation.
- (2) Relationship to the "Marble Line" or bowl shaped skarn line.
Economic mineralization occurs within this altered skarn zone.
- (3) Dikes and sills and the proximity to them are closely associated as the source of mineralization within the deposits.
- (4) Gold deposits appear to be localized where fracturing of the folds has occurred.

(5) Arsenopyrite is associated with all the deposits in this area.

LOCAL GEOLOGY AND MINERALIZATION

The claims are underlain by Mesozoic sedimentary rocks belonging to the Hedley, Henry, and Wolfe Creek Formations, which have been intruded by a granitic body of Jurassic age.

The Hedley Formation is composed of limestone, quartzite, argillite, conglomerate, breccia, and tuff. Outcrops of the Hedley Formation were observed within the Zandu claim along Hedley Creek and at the contact with the granitic body which lies to the north. The Hedley Formation has also been intruded by diorites (G.S.C. Map 568A). An intermediate dyke intruding argillaceous sandstone and argillite adjacent to Hedley Creek may be associated with these intrusions.

In this area the Hedley Formation strikes northerly and dips to the west. The rocks are composed of sandstone and argillite with individual beds ranging from 1/2 cm to 1 metre in width, many of which exhibit iron staining. Mineralization is present as disseminated pyrite and pyrrhotite and rare arsenopyrite. Millimetre sized carbonate stringers are present throughout. Limestone and siltstone float, also containing pyrrhotite and pyrite is present along Hedley Creek.

The Henry Formation (argillite, impure limestone) and Wolfe Creek Formation (andesite and basalt) were not observed by N.J. Hulme during the initial programme due to topography and weather conditions in December, but these are known to be present on the property (G.S.C. Map 568A).

A large body of granite lies within the northern area of the property, underlying much of the Yeti Claim. The granite is medium grained and contains 50% K-feldspar, 25% plagioclase feldspar, 20% quartz. and 5% biotite.

GEOCHEMISTRY

A total of 35 samples were taken from the area with 6 rock samples and 15 stream sediment samples taken from the Zandu and Yeti Claims. The sample locations were marked by sample numbers on fluorescent flagging tape. The samples were then placed in Kraft envelopes and sent to Acme Analytical Laboratories Ltd. of Vancouver where they were dried at 60°C, pulverized and sieved at -80 mesh. A 0.5 gram sample was digested in 3 millilitres of hot dilute aqua regia (3:1:3/HCL:HNO₃:H₂O) in a boiling water bath for one hour and diluted to 10 millilitres with water. The samples were analyzed by having 10.0 gram samples ignited overnight @ 600°C digested by hot aqua regia and extracted by Methyl Isobutyl Ketone. The ketone solution was used to determine gold content by atomic absorption methods.

Stream sediment samples YTS-7 to 9 which were taken from the drainage along the south boundary of the Yeti Claim near the sedimentary - intrusive contact returned anomalous values in gold to 435 ppb. Rock sample ZR-4 also contained 135 ppb AU.

ROCK SAMPLE DESCRIPTIONS

ZANDU CLAIM

- ZR-1 Argillaceous sandstone (float)
 disseminated pyrite, pyrrhotite
 arsenopyrite
 carbonate stringers
 8 ppm MO, 1.1 ppm AG, 8 ppb AU
- ZR-2 Argillaceous sandstone
 disseminated pyrite, pyrrhotite
 iron stains
 3 ppm MO, 0.8 ppm AG, 7 ppb AU
- ZR-3 argillaceous sandstone
 sheared rock associated with dyke
 carbonate in fractures
 iron staining
 (not assayed)
- ZR-4 intermediate dyke
 carbonatized
 small amount of magnetite
 135 ppb AU

YETI CLAIM

- YTR-1 granite
 small amount pyrite
 background AU
- YTR-2 sandstone
 disseminated pyrite, pyrrhotite
 background AU

RECOMMENDATIONS

A three stage programme to delineate diamond drill targets is recommended on the Zandu Claim Group.

The first stage should consist of thorough geological mapping and prospecting. All drainages should be sampled and the area near the south boundary of the Yeti Claim should be sampled in detail. The seven orebodies of the Nickle Plate Mine are relatively deep deposits that outcropped in one area only. Initially, a grid should be established in order to conduct a systematic magnetometer, VLF-EM, and geochemical survey. The magnetometer survey will assist in mapping formations and locating areas underlain by pyrrhotite. The VLF-EM survey should pick up any conductors near surface, and the geochemical soil survey will indicate areas of strongest mineral concentrations. The grid should consist of N-S lines at 100 meter spacings with stations every 30 meters.

The second stage which would be contingent upon encouraging results from the first stage should consist of detailed geochemical sampling, trenching, and detailed geophysical surveys consisting of an Induced Polarization and Resistivity survey, detailed Magnetometer and VLF EM surveys.

Contingent on favourable results in the second stage, the third stage would consist of diamond drilling of anomalous areas outlined in previous stages.

COST ESTIMATE OF RECOMMENDED PROGRAMMES

Stage 1.

Establish grid and linecutting	\$ 1,500.
Geochemical sampling and assays 300 samles @ \$20.	6,000.
Magnetometer Survey 30 km @ \$125./km	3,750.
VLF-EM Survey 30 km @ \$125./km	3,750.
Geological mapping, sampling, prospecting	4,500.
Engineering, supervision, reports, maps	5,000.
Camp	2,500.
Transportation	1,200.
Contingencies	<u>3,800.</u>
TOTAL COST OF STAGE 1.	\$ 36,000.

Stage 2.

Grid and linecutting	\$ 5,000.
Detailed Geochem 600 samples @ \$20.	12,000.
Detailed mag survey	4,000.
Detailed Em survey	4,000.
Trenching and sampling	3,000.
IP Survey 20 km @ \$600.	12,000.
Engineering, Interpretation, supervision	6,000.
Drafting	1,000.
Camp	4,000.
Transportation	1,500.
Contingencies	<u>6,500.</u>
TOTAL COST OF STAGE 2.	\$ 59,000.

Stage 3.

Diamond drilling 1,200 meters @ \$100./meter (all inclusive)	\$ 120,000.
TOTAL COST OF EXPLORATION PROGRAMME	\$ <u>215,000.</u>

Respectfully submitted,

A circular professional seal for F. Di Spirito, a Professional Engineer of the Province of Ontario. The seal contains the text: "PROFESSIONAL ENGINEER OF THE PROVINCE OF ONTARIO", "F. DISPIRITO", "BRITISH COLUMBIA", and "REGISTERED".
F. Di Spirito, B.A.Sc., P.Eng
January, 28, 1985

BIBLIOGRAPHY

- HAINSWORTH, W.G. Report on the Nickle Plate
Property for Mascot Nickel
Plate Mines Ltd. May 1, 1980
- BOSTOCK, H.S. and McNAUGHTON, D.A.
Hedley Geology Map No. 568A,
Similkameen, Osoyoos, and
Kamloops Districts. Bostock
(1926-1930); McNaughton (1937)
- GEORGE CROSS NEWSLETTER Mascot Gold Mines Ltd.
December 3, 1984.
No. 232
- DI SPIRITO, F. Report for Brohm Resources Inc
December 16, 1984

CERTIFICATE

I, Frank Di Spirito, of the City of Vancouver in the Province of British Columbia do hereby certify:

- I) I am a graduate of the University of British Columbia (1974) and hold a Bachelor of Applied Science in Geological Engineering.
- II) I am a registered member, in good standing, of the Association of Professional Engineers of British Columbia.
- III) Since graduation I have been involved in numerous mineral exploration programmes throughout Canada and the United States.
- IV) This report is based on a personal field examinations made on properties in the Hedley area and on evaluation of information gathered or compiled by Mr. Nigel Hulme, geologist during a preliminary examination of the property.
- V) I have no direct or indirect interest in the property described herein or in YUKON GOLD PLACERS LTD nor do I expect to receive any.
- VI) This report may be utilized by YUKON GOLD PLACERS LTD. for inclusion in a Prospectus or Statement of Material Facts.

Respectfully submitted at Vancouver, B.C., January 28, 1985

The seal is circular with a double-line border. The outer ring contains the text "PROFESSIONAL" at the top and "ENGINEER" at the bottom. The inner ring contains "PROVINCE OF" at the top and "COLUMBIA" at the bottom. In the center, the name "F. DISPIRITO" is printed. A handwritten signature, "Frank Di Spirito", is written across the seal. Below the seal, the text "Frank Di Spirito, B.A.Sc., P.Eng" is printed.

Frank Di Spirito, B.A.Sc., P.Eng

CERTIFICATE:

I, NIGEL J. HULME, of 2040 Columbia Street, Vancouver, in the Province of British Columbia, do hereby certify that:

1. I graduated in 1982 from Carleton University, Ottawa, Ontario, with an Honors B.Sc. in geology.
2. I have been involved in mineral exploration since 1979.
3. This geological account is based on field work carried out in December, 1984.
4. I have no interest, direct or indirect, in the ZANDU GROUP CLAIMS or in YUKON GOLD PLACERS LTD, nor do I expect to receive any.
5. This report may be utilized by YUKON GOLD PLACERS LTD for inclusion in a Prospectus or Statement of Material Facts.

Dated at Vancouver, B.C., this 1st day of February, 1985.

Nigel J. Hulme, B.Sc.

APPENDIX

Assay results on the ZANDU CLAIM GROUP

GEOCHEMICAL ICP ANALYSIS

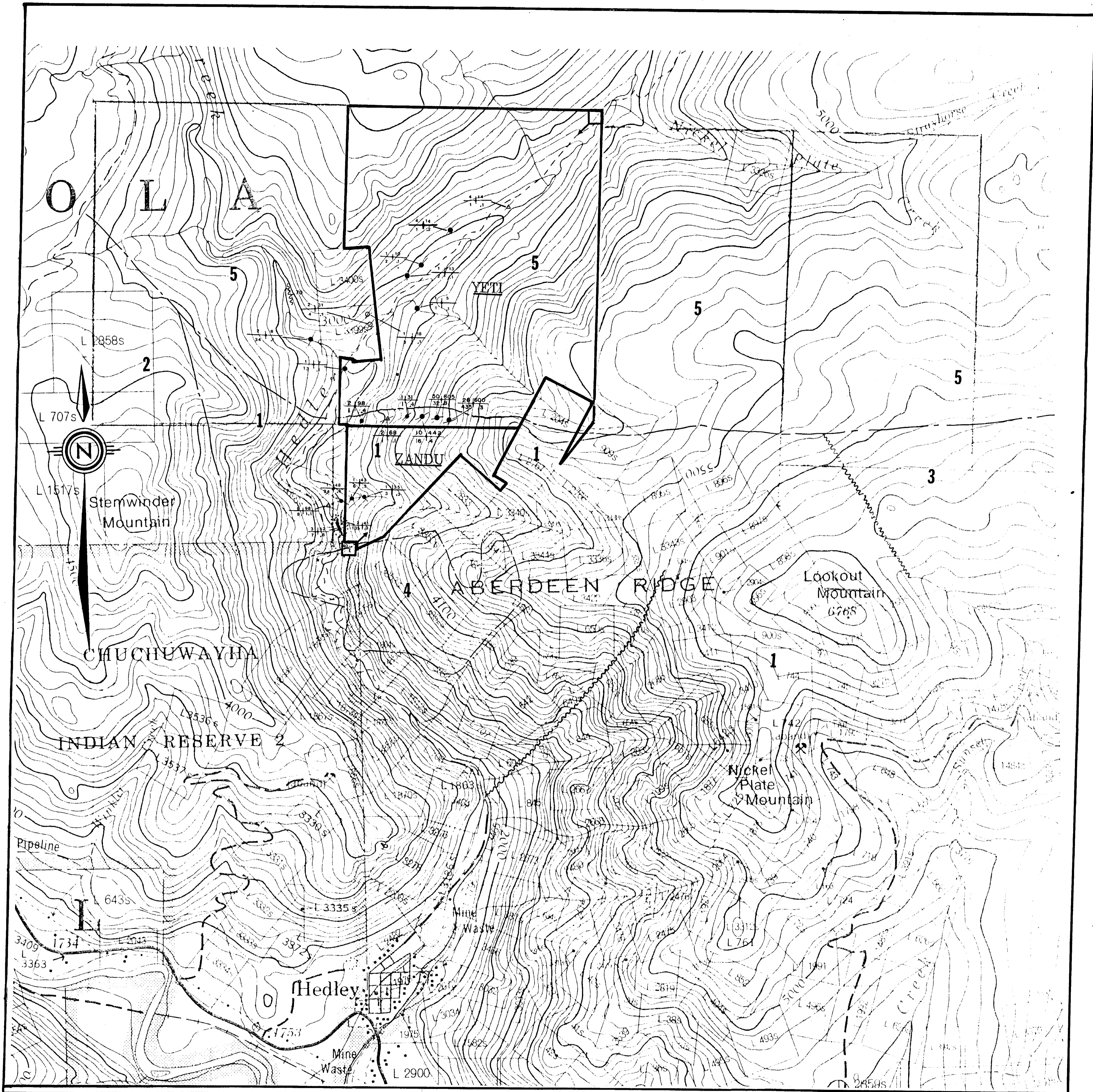
.500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-3 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER. THIS LEACH IS PARTIAL FOR Mn, Fe, Ca, P, Cr, Mg, Ba, Ti, V, Al, Na, K, W, Si, Zr, Ce, Sn, Y, Nb and Ta. Au DETECTION LIMIT BY ICP IS 3 PPM. - SAMPLE TYPE: SOILS & ROCKS AND ANALYSIS BY AA FROM 10 GRAM SAMPLE.

DATE RECEIVED: JAN 15 1985 DATE REPORT MAILED: Jan 17, 1985 ASSAYER: V. Saundry DEAN TOYE OR TOM SAUNDRY. CERTIFIED B.C. ASSAYER

BROHM DEVELOPMENTS FILE # 85-0050

PAGE 1

Table with columns: SAMPLE#, Mo, Cu, Pb, Zn, Ag, Ni, Co, Mn, Fe, As, U, Au, Th, Sr, Cd, Sb, Bi, V, Ca, P, La, Cr, Mg, Ba, Ti, B, Al, Na, K, W, Au, and units (ppm, %). Rows include samples YKS-001 to YKS-005, YTS-001 to YTS-006, YKS-007 to YKS-009, YKS-T1 to YKS-T2, SIS-001 to SIS-002, YKR-001 to YKR-003, YKR-004 to YKR-007, ZR-001 to ZR-002, YTR-001 to YTR-002, and STD C/AU 0.5.



LEGEND

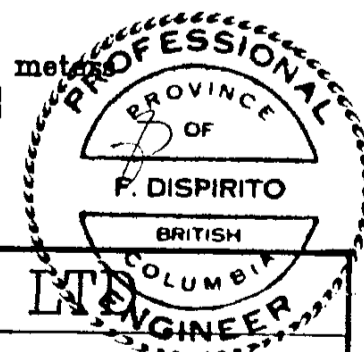
- [5] Granite Porphyry
- [4] Granodiorite
- [3] Wolfe Creek Formation: andesite and basalt, breccia and tuff, minor sediments
- [2] Henry Formation: black argillite, impure limestone, tuff
- [1] Hedley Formation: limestone, quartzite, argillite, conglomerate, breccia, tuff
- [] Intermediate dykes

SYMBOLS

- (with dot) sampled outcrop
 - (dashed) geological contact: assumed, defined, approximate
 - (with arrow) bedding orientation
 - (with dip) fault (with dip)
 - (small) soil sample
 - (small) sediment sample
 - △ (small) rock sample
- Mo(ppm) + Cu(ppm)
Au(ppb) + Ag(ppm)

100' contour intervals

SCALE 1:15,000



BROHM DEVELOPMENTS LTD.

YUKON GOLD PLACERS LTD.

ZANDU GROUP

Osoyoos Mining Division

GEOLOGY & GEOCHEMISTRY

GEOLOGICAL BRANCH

ASSESSMENT REPORT

SCALE: 1:15,000

DATE: JAN. 1985

N.T.A.

92H/8E

GEO-COMP

MAP 1

14,321