

MAP NO.: ASSESSMENT REPORT X

DOCUMENT NO: 093008

116 C /02

PROSPECTUS

MINING DISTRICT: Dawson

CONFIDENTIAL X

TYPE OF WORK: Prospecting

OPEN FILE

Geological Sampling

REPORT FILED UNDER: Archer Cathro & Associates (1981) Ltd.

DATE PERFORMED: June 23, 1991.

DATE FILED: January 27, 1992

LOCATION: LAT.: 64°07'N

AREA: N.W. Yukon - Alaskan Border Area

LONG.: 140°59'W

VALUE \$: 1,823.16

CLAIM NAME & NO.: Bal 1 - 6 YB30599 - YB30604.

WORK DONE BY: Robert C. Carne

WORK DONE FOR: YGC Resources Ltd. and Archer Cathro & Associates (1981) Ltd.

DATE TO GOOD STANDING:


REMARKS: # 116 - C

One day was spent prospecting on the property. The main interest in the property is a relatively high grade Zn-Pb-Cu-Ag showing hosted in a silicious interval within the Klondike Schist. Sample T29893 returned 2.44% Pb, 5.64% Zn, 0.44% Cu and 33.8% Ag. Sample T29894 returned 1.41% Pb, 2.65% Zn, 0.29% Cu and 23.2% Ag. A large Pb-Zn-Cu soil anomaly was confirmed in 1990. More work is planned for the future. Property is believed to be metamorphosed volcanogenic exhalite deposit. Deposit has unusually low pyrite content.

# ARCHER, CATHRO

• ASSOCIATES (1981) LIMITED

CONSULTING GEOLOGICAL ENGINEERS

1016-510 WEST HASTINGS STREET  
VANCOUVER, B. C. V6B 1L8

(604) 688-2568

SUMMARY REPORT

ON

1991 PROSPECTING

BAL CLAIMS

DAWSON MINING DISTRICT

BAL 1-6 Claims (YB30599 to YB30604)

Latitude 64°07'N; Longitude 140°59'W

NTS 116C/2

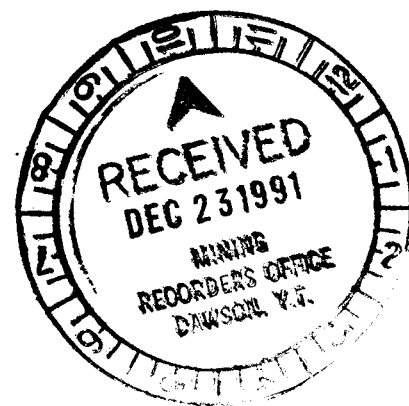
for

YGC RESOURCES LTD.

R.C. Carne, M.Sc.

December, 1991

Work Performed on June 23, 1991



093008

This report has been examined by  
the Geological Evaluation Unit  
under Section 53 (4) Yukon Quartz  
Mining Act and is allowed as  
representation work in the amount  
of \$ 1,823.16.

*for.* *Robert Debluk*  
Regional Manager, Exploration and  
Geological Services for Commissioner  
of Yukon Territory.

8 9 1 0 1 1 2

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APPENDICES

I Author's Statement of Qualifications
II List of Personnel
III Analytical Certificates

SUMMARY AND RECOMMENDATIONS

The six claim Bal property is located near road access along the Alaska border in west-central Yukon Territory. The property was staked by YGC Resources Ltd. to cover a previously outlined multi-element geochemical anomaly that coincides with a Permian-aged stratiform volcanogenic siliceous exhalite horizon. Relatively high grade Zn-Pb-Cu-Ag mineralization consisting of disseminated sphalerite, galena and chalcopyrite in a siliceous matrix has been discovered in one area on the property. This zone is unusual in the very low pyrite content of the mineralization and it is a more attractive exploration target from a metallurgical and environmental point of view than conventional pyritic volcanogenic massive sulphide mineralization.

Additional exploration of the property should consist of thorough prospecting and hand pitting or excavator trenching of the most promising geochemical targets. This should be followed up with five to ten short diamond drill holes to evaluate the zone.

Respectfully submitted,

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED



R.C. Carne.

/mc

INTRODUCTION

The Bal property was staked in June, 1990 by YGC Resources Ltd. The claims were acquired to cover previously outlined lead-zinc-silver geochemical anomalies associated with stratabound volcanogenic sphalerite-galena-pyrite mineralization.

The 1991 field program described in this report was funded by YGC and consisted of prospecting on June 23, 1991.

Appendix I includes the Author's Statement of Qualifications while a list of personnel who worked on the project is included as Appendix II.

PROPERTY, LOCATION AND ACCESS

The Bal property lies in west-central Yukon about 2 km north of the Top of the World Highway at the Alaska-Yukon border crossing and about 75 km west of Dawson City (Figure 1). A good four-wheel drive road passes within 1 km of the claims (Figure 2). Access for the 1991 field work was supplied by foot along a placer miner's bulldozer trail to the showing area from a four-wheel drive road.

The Bal property consists of six claims registered with the Dawson Mining Recorder in the name of Archer, Cathro as follows:

<u>Claim Name</u>	<u>Grant Numbers</u>	<u>Expiry Date</u>
Bal 1-6	YB30599-YB30604	March 4, 1993

Claim locations are shown on Figure 2.

Figure 1

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

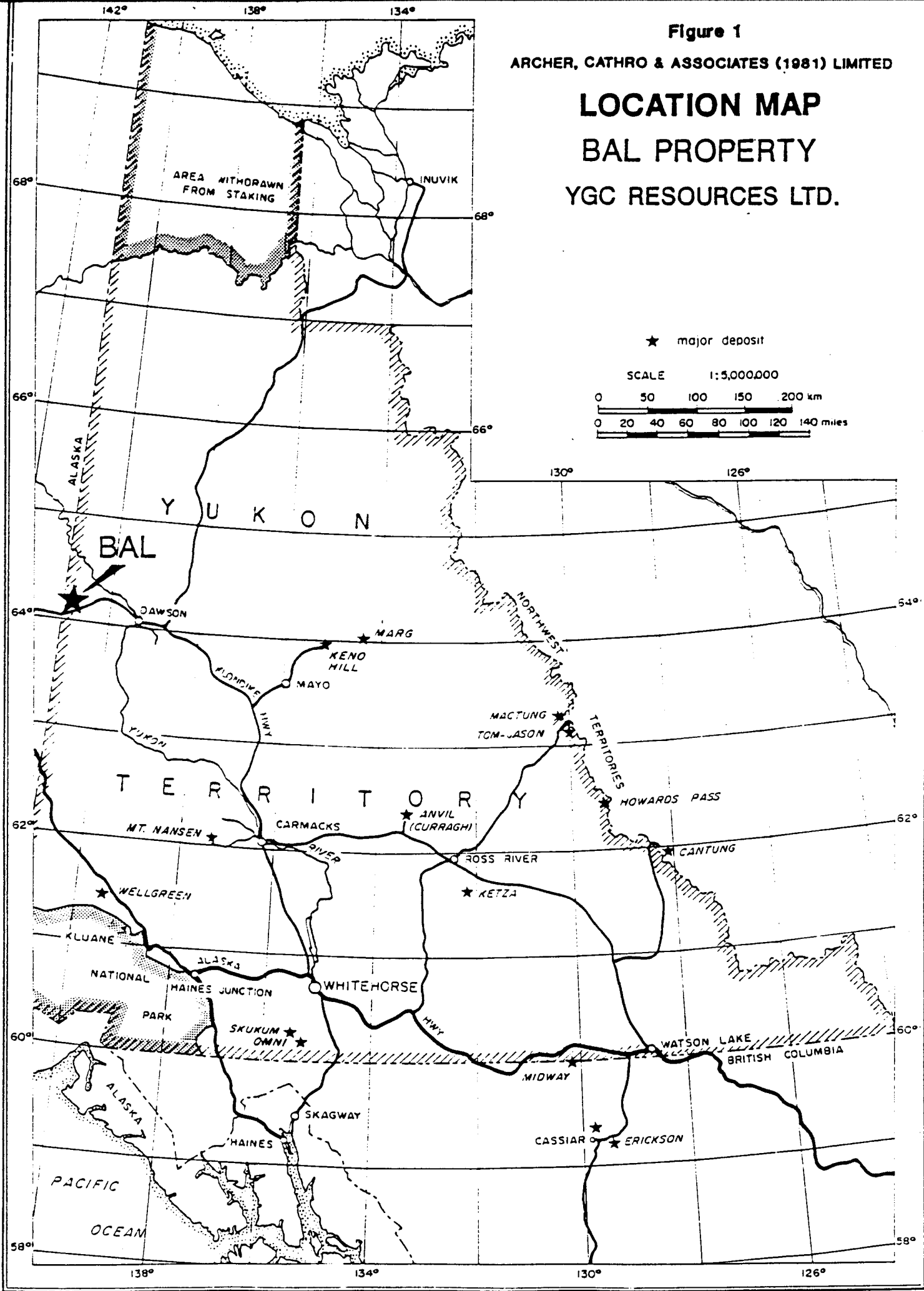
# LOCATION MAP BAL PROPERTY YGC RESOURCES LTD.

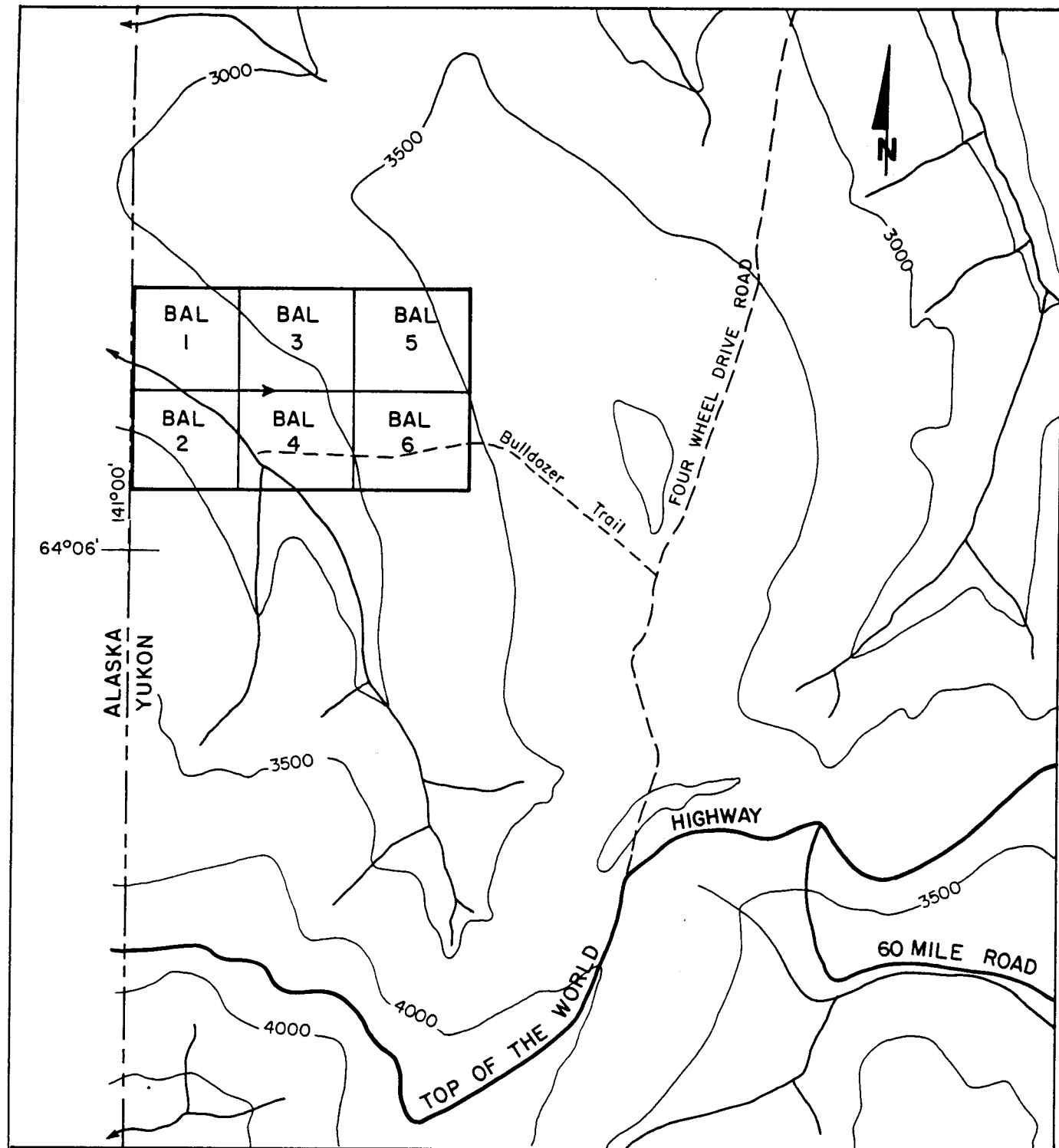
★ major deposit

SCALE 1:5,000,000

0 50 100 150 200 km

0 20 40 60 80 100 120 140 miles





**Figure 2**

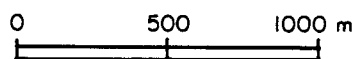
ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

**CLAIM LOCATIONS**

**BAL PROPERTY**

**YGC RESOURCES LTD.**

NTS 116C/2



December, 1991

### HISTORY AND PREVIOUS WORK

The area was originally staked and explored by Cominco Ltd. which carried out prospecting and geochemical sampling in 1980. YGC restaked the property in June, 1990 and carried out geochemical sampling and prospecting in August, 1990.

### GEOMORPHOLOGY

Topography on the Bal claims is subdued with elevations ranging from 800 to 950 m. The area is lightly vegetated with scrub black spruce, willow and dwarf birch above a ground cover of grasses, sedges and low growing deciduous shrubs. Treeline is about 925 m elevation. Overburden cover is thin and spotty bedrock exposures are limited to the bed of northwest-flowing Hall Creek which bisects the property. Because the area is unglaciated, most of the property is mantled by soliflucted colluvium mixed with residual mineral soil that is capped by a thin layer of organic-rich soil and recent volcanic ash. Permafrost is probably relatively continuous.

GEOLOGY

The Bal claims are located within a northerly-dipping, 2000 m thick sequence of metavolcanic rocks informally named the Klondike Schist (Figure 3). Lithologies consist of pyritic quartz-muscovite schist, quartz and/or feldspar augen schist and chloritic schist with minor graphitic quartz-muscovite schist intervals. In general, there is a bimodal lithologic character with dominantly chloritic rocks at the structural base of the unit succeeded by mostly sericitic rocks toward the top. An Upper Permian zircon age date was determined by J.K. Mortensen of the GSC in 1990 from a sample of quartz-augen muscovite schist collected 2 km northeast of the property. Compositional layering dips about 25° to the northwest, parallel with bounding thrust faults that separate the Klondike Schist sequence from Devonian to Mississippian Nasina Series graphitic quartzite and quartz-muscovite schist. Erosional remnants of Late Cretaceous Carmacks Volcanics andesite flows with minor clastic sedimentary rocks unconformably overlie the metamorphic rocks at higher elevations east of the property.

MINERALIZATION

Disseminated sphalerite, galena and chalcopryrite with minor pyrite occur in a relatively fine-grained, compact siliceous interval within the schists at approximately the contact between chloritic and sericitic members of the Klondike Schist. The mineralization was discovered by Cominco in 1980 and relocated by J.K. Mortensen of the GSC in 1989 in a placer miner's test pit in the bed of Hall Creek. This exposure was covered by alluvium at the time of the 1990 and 1991 exploration. The old Cominco grid was relocated in 1991 and the best part of the geochemical anomaly was carefully prospected but due to deep weathering and overburden cover no mineralization was discovered to explain the geochemical response. Poorly exposed stratiform mineralization was located in slumped creek bank exposures downstream of the main geochemical anomaly (Figure 3). Samples of the discovery zone collected by Mortensen were submitted for analysis by YGC along with rock samples collected from other nearby zones in 1990 and 1991. Results are summarized below and given in detail in Appendix III.

TABLE I  
SUMMARY OF ROCK SAMPLE ANALYSES

<u>Sample Number</u>	<u>Pb%</u>	<u>Zn%</u>	<u>Cu%</u>	<u>Ag (g/t)</u>	<u>Au (ppb)</u>	<u>Description</u>
E42722	3.43	8.09	0.20	41.0	195	banded diss gl-sp-py in QZ-SE SHST
E42723	1.00	3.43	0.12	11.2	70	mod diss gl-sl in QZ-SE SHST
T29891	0.72	0.08	0.04	16.4	---*	minor diss gl in SE-CL SHST
T29892	0.20	0.03	0.04	3.4	---*	minor diss gl-py in CL SHST
T29893	2.44	5.64	0.44	33.8	---*	banded diss gl-sl-py in QZ-SE SHST
T29894	1.41	2.65	0.29	23.2	---*	diss gl-sl-py in QZ-SE SHST

\*1991 samples were not analyzed for gold.

The galena, sphalerite and chalcopryrite-bearing siliceous intervals are probably part of a metamorphosed volcanogenic exhalite deposit. Lead isotope analysis of galena from the mineralized interval carried out by J.K. Mortensen yields a Middle to Upper Permian model age, concordant with age of the host rocks.

The Bal showing lies about 2 km northeast, and along strike with, the Boundary Prospect in Alaska. Little information is publicly available on this deposit although it is known that the volcanogenic massive sulphide mineralization received extensive diamond drilling in the late 1970's.

GEOCHEMISTRY

Approximately 350 grid soil samples were collected from the Bal claims area by Cominco in 1980. A 1.3 km long, 100 to 500 m wide multi-element geochemical anomaly was outlined. Lead is the most anomalous element with many values in the 100 to 200 ppm range against a background of 10 to 25 ppm. Two samples contained in excess of 700 ppm Pb. Anomalous zinc values are in the range of 100 to 200 ppm with background values of 50 to 75 ppm. Anomalous copper values vary between 25 to 100 ppm against a background of 10 to 15 ppm. Lead values only are shown on Figure 2 in the pocket. The known showings on the property coincide with moderate strength parts of the anomaly. No mineralization has yet been discovered to explain the best part of the zone.

APPENDIX I  
AUTHOR'S STATEMENT OF QUALIFICATIONS

## STATEMENT OF QUALIFICATIONS

I, Robert C. Carne, geologist, with business addresses in Whitehorse, Yukon Territory and Vancouver, British Columbia and residential address in Burnaby, British Columbia, hereby certify that:

1. I graduated from the University of British Columbia in 1974 with a B.Sc. and in 1979 with an M.Sc. majoring in Geological Sciences.
2. I am a member of the Geological Association of Canada.
3. From 1974 to present, I have been actively engaged as a geologist in mineral exploration in British Columbia and Yukon Territory and on June 1, 1981 became a partner of Archer, Cathro & Associates (1981) Limited.
3. I have personally participated in or supervised the field work reported herein and have interpreted all data resulting from this work.



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Robert C. Carne, B.Sc., M.Sc.

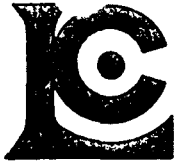
APPENDIX II  
LIST OF PERSONNEL

LIST OF PERSONNEL

June 23

R. Carne, B. Wengzynowski, K. Owerko

APPENDIX III  
ANALYTICAL CERTIFICATES



# Chemex Labs Ltd.

Analytical Chemists \* Geochemists \* Registered Assayers  
212 Brooksbank Ave., North Vancouver  
British Columbia, Canada V7J 2C1  
PHONE: 604-984-0221

To: ARCHER CATHRO & ASSOC. (1981) LTD.

BOX 4127  
WHITEHORSE, YT  
Y1A 3S9

Project: YGC(BAL)  
Comments:

Page Number : 1-A  
Total Pages : 1  
Certificate Date: 02-JUL-9  
Invoice No. : 19116974  
P.O. Number :

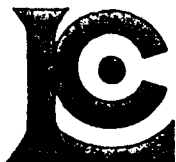
## CERTIFICATE OF ANALYSIS

A9116974

SAMPLE DESCRIPTION	PREP CODE		Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	Hg ppm	K %	La ppm	Mg %	Mn ppm	Mo ppm
			Aqua R	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	%	ppm	ppm
T29890	208	294	< 0.2	2.11	10	200	< 0.5	< 2	0.55	< 0.5	18	98	7	5.57	< 10	< 1	1.20	< 10	1.42	720	5
T29891	208	294	16.4	3.91	25	30	< 0.5	28	0.02	< 0.5	2	1390	386	6.00	< 10	18	< 0.01	< 10	4.97	735	< 1
T29892	208	294	3.4	1.04	< 5	140	< 0.5	6	6.97	8.5	9	66	372	2.08	< 10	< 1	0.18	< 10	1.05	1850	2
T29893	208	294	33.8	1.06	30	40	< 0.5	70	7.14	>100.0	45	249	4410	7.70	< 10	29	0.17	< 10	1.15	2590	27
T29894	208	294	23.2	0.50	30	40	< 0.5	48	4.42	>100.0	40	138	2880	6.39	< 10	17	0.21	< 10	0.16	1110	23

CERTIFICATION:

*B. Coughlin*



# Chemex Labs Ltd.

Analytical Chemists \* Geochemists \* Registered Assayers  
212 Brooksbank Ave., North Vancouver  
British Columbia, Canada V7J 2C1  
PHONE: 604-984-0221

To: ARCHER CATHRO & ASSOC. (1981) LTD.

BOX 4127  
WHITEHORSE, YT  
Y1A 3S9

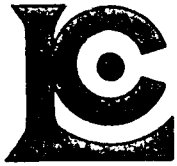
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Page Number : 1-B  
Total Pages : 1  
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Invoice No. : 1911697  
P.O. Number :

## CERTIFICATE OF ANALYSIS A9116974

SAMPLE DESCRIPTION	PREP CODE	Na %	Ni ppm	P ppm	Pb ppm	Sb ppm	Sc ppm	Sr ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm
T29890	208 294	0.01	5	460	2	< 5	2	26	0.13	< 10	< 10	22	< 10	86
T29891	208 294	< 0.01	137	160	7220	< 5	26	12	0.01	< 10	< 10	135	< 10	788
T29892	208 294	0.03	13	70	1950	< 5	6	111	0.06	< 10	< 10	29	< 10	336
T29893	208 294	0.01	45	160	>10000	< 5	4	118	0.01	< 10	< 10	24	60	>10000
T29894	208 294	0.01	29	2650	>10000	< 5	2	70	0.01	< 10	< 10	19	40	>10000

CERTIFICATION:



# Chemex Labs Ltd.

Analytical Chemists \* Geochemists \* Registered Assayers  
212 Brooksbank Ave., North Vancouver  
British Columbia, Canada V7J 2C1  
PHONE: 604-984-0221

To: ARCHER CATHRO & ASSOC. (1981) LTD.

BOX 4127  
WHITEHORSE, YT  
Y1A 3S9

Project: YGC(BAL)  
Comments:

Page Number : 1  
Total Pages : 1  
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P.O. Number :

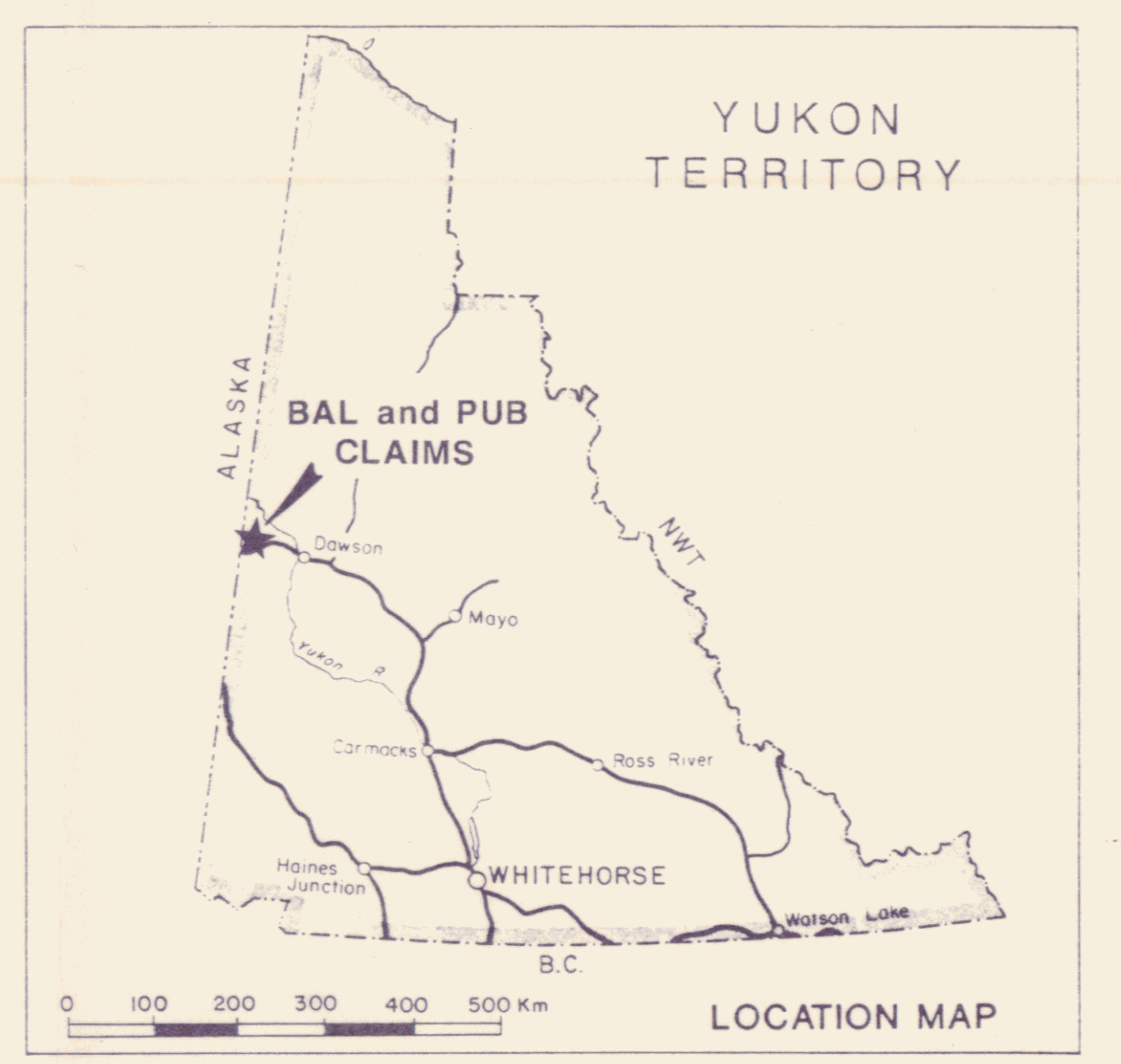
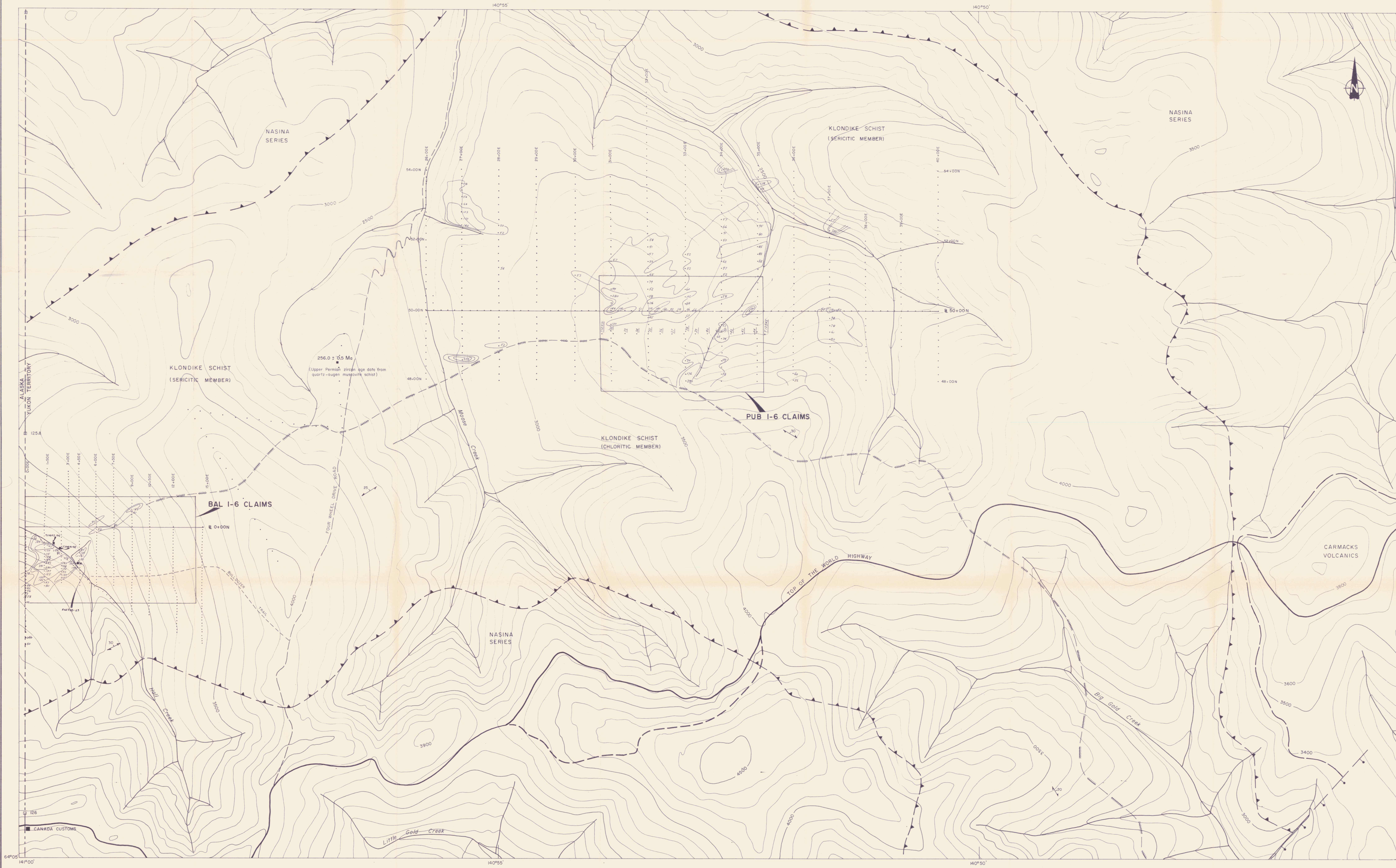
## CERTIFICATE OF ANALYSIS

A9117445

SAMPLE DESCRIPTION	PREP CODE		Pb %	Zn %								
T29893	214	--	2.44	5.64								
T29894	214	--	1.41	2.65								

CERTIFICATION:

*A Christie*



- LEGEND**
- LATE CRETACEOUS**  
 Carmacks Volcanics  
 andesite flows, breccias and plugs, minor clastic sedimentary rocks.
- PERMIAN**  
 Klondike Schist  
 pyritic quartz-muscovite schist, quartz and/or feldspar-quartz schist, chloritic schist and minor graphitic quartz-muscovite schist
- DEVONIAN to MISSISSIPPIAN**  
 Nasina Series  
 grey to black graphitic quartzite and quartz-muscovite schist

- SYMBOLS**
- compositional layering
  - thrust fault
  - normal fault
  - soil sample site (with sample number for 1990 samples)
  - lead geochemical anomaly (>50ppm; contours at 100, 200ppm)
  - projected trace of metalliferous horizon
  - approximate geological contact

Figure 3  
 ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

**COMPILATION MAP**

BAL AND PUB CLAIMS  
 YGC RESOURCES LTD. DWG 27  
 NTS 116C/2

SCALE 1:10,000

0 100 200 300 400 500 1000 Metres  
 0 500 1000 2000 3000 Feet

093008 342

MAP # 116/92

To accompany report dated December, 1991