



COMINCO LTD.

EXPLORATION

WESTERN DISTRICT



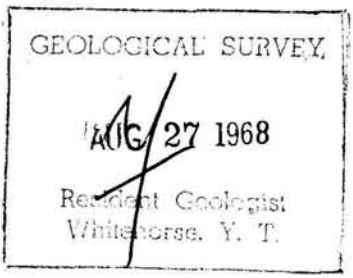
GEOLOGICAL REPORT ON THE CHAIN 1-8
MINERAL CLAIMS SITUATED IN THE WHITEHORSE
MINING DIVISION (NTS 105 K-2), Y.T.

LAT. 62° 12' NORTH

LONG. 132° 58' WEST

REPORT BY

G. PARSONS



SUPERVISED BY

J. RICHARDSON, P. ENG.

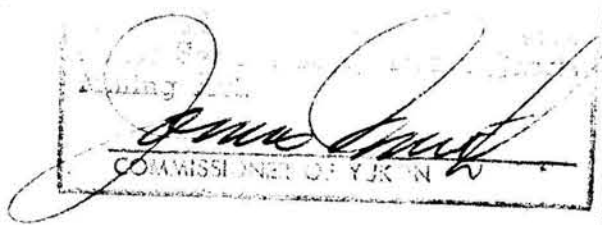
COMINCO LTD.

This report has been examined by
the Geological Evaluation Unit
Approved as being of real worth by:

D. C. Findlay

841 ²²
R. J. Redden

GP:mk
June 14, 1968
Vancouver, B. C.



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<u>Group</u>	<u>Number of Claims</u>	<u>Credit Requested</u>
Chain Group	8	8 years

Assessment work credit, as a result of geological work carried out during the period June 24, 1967 and June 28, 1967, is requested on the following located claims:

<u>Claim</u>	<u>Grant No.</u>	<u>Credit Requested</u>	<u>Total</u>
Chain Nos. 1-8	Y3708-Y3715	1 year each	8 years

Anniversary date for Chain 1, 3, 5 and 7 is June 23, and for Chain 2, 4, 6 and 8 the anniversary date is September 23rd.

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ATTACHMENTS

Appendix I - Exhibit "A"
(a) Summary of Expenditures
(b) Personnel

Appendix II - Statutory Declaration Relating to
Expenditures

Plates - Regional Geology 1" = 4 mi.
 - Chain Mineral Claim Group 1" = 1/2 mi.

C O M I N C O L T D.

EXPLORATION

WESTERN DISTRICT

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LAT. 62° 12' NORTH
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INTRODUCTION

Under an option agreement with Consolidated Novell Mines, Cominco Ltd. acquired the Chain 1-8 mineral claims situated in the Swim Lakes area of the Vangorda District. The property was optioned to carry out exploration for massive sulphide deposits similar to the Faro, Vangorda and Swim base metal deposits.

During the period June 24 to June 28, 1967 a crew, comprised of a geologist and a senior student assistant, searched the property for outcrop. It was anticipated that detailed mapping of available outcrop would provide sufficient geological information to confirm the stratigraphic position of the rocks underlying the claim group.

Locational control was provided by pace and compass traverses tied into topographic features and existing claim posts and chained location lines.

LOCATION AND ACCESS

The Chain mineral claim group is located approximately 22 miles northwest of Ross River on the northeast side of the Tintina Trench. The claims are on claim sheet 105 K-2 at 62° 12' North latitude and 132° 58' West longitude.

Access to the property is most conveniently made by float or ski equipped aircraft to the unnamed lake at the west end of the property. During the break-up period however, a helicopter is necessary and this was the means of transportation used for Cominco's program.

One camp was established for work on the claim group at the west end of the aforementioned lake.

PREVIOUS WORK

Previous work on the claim group was limited to the airborne geophysical survey carried out by Dynasty Explorations and Kerr Addison during their early exploration in the district.

METHOD OF SURVEY

Traverses across the topographic grain were conducted over the entire property except those portions covered by lake or swamp. Control was maintained by use of air photographs with pace and compass ties to the chained location line of the claims.

REGIONAL GEOLOGY

The Vangorda District is underlain by a series of Proterozoic and Paleozoic strata. There are two regional unconformities of significance---beneath the Devonian-Mississippian rocks and beneath the late Paleozoic volcanic rocks. These layered rocks are intruded by the early Upper Cretaceous Anvil batholith which is comprised largely of granodiorite.

The structure of the area is dominated by two features---the Tintina Trench, which marks a regional transcurrent fault, and a doubly plunging antiform feature formed by the older strata being pushed up by the intrusive.

There has been two or possibly three periods of regional deformation in the district. The youngest has folded the Devonian-Mississippian into gentle open folds. The Upper Cambrian rocks are strongly deformed and are characterized by crenulation foliation and transposition structures. The Lower Cambrian

and Proterozoic rocks have developed segregation banding and also exhibit other characteristics of a higher grade metamorphism than the Upper Cambrian and younger rocks.

The host rocks for the ore deposits are thought to be Middle and Upper Cambrian phyllites. These rocks are generally chloritic phyllites which are locally graphitic and also contain lenses of tuffaceous(?) greenstones and quartz-rich layers. Around the ore deposits there is an irregular bleached zone in the phyllites which is the only evident alteration effect. Ore controls for the district or for the individual deposits are not known.

LOCAL GEOLOGY

No outcrop was found on the Chain claims, however outcrops on the Jerry group at the west end of Swim Lake and to the southwest of the Chain group indicate that the strata in that region are relatively flat-lying with dips ranging from 10°-30° to both the north and south. The foliation is parallel to the color banding in this area although due to the abundance of transposition structures the color banding may not, in fact probably does not, represent true bedding.

It is thought that the rocks which underlie the Chain group are part of the Upper Middle Cambrian phyllite unit, as defined by Templeman-Kluit (GSC - 1968), which is the host rock for ore deposits in the area.

The claim group has a drumlinoid ridge, 75 to 100 feet high, with an easterly axis along which the claim location line extends. Despite an extensive search, no evidence of bedrock was found. All material observed during the traverses consisted of unsorted glacial till.


CONCLUSIONS AND RECOMMENDATIONS

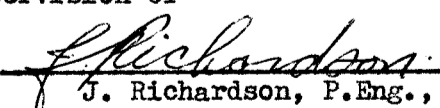
As no outcrop was found to exist on the claims, and no indirect methods of exploration were used, it was not possible to reach any new conclusions as to the economic potential of the Chain property.

LIST OF PUBLISHED REFERENCES

Roddick, J.A. and Green, L.H. - Tag River, Yukon Territory, Geol. Surv. 1961
Can. Map 13, 1961.

Templeman-Kluit, D. - Geologic Setting of the Faro, Vangorda and Swim Base Metal Deposits, Geol. Surv. Can. Paper 68 - I A pp. 43-52.

Report By 
G. Parsons, Cominco Ltd.

Under Supervision Of

J. Richardson, P.Eng., B.C.
Cominco Ltd.

GP:mk
June 14, 1968
Attachment
Distribution:
Mining Recorder, Whitehorse (3)
Cominco Ltd., Vancouver (1)

APPENDIX I

COMINCO LTD.

EXPLORATION

WESTERN DISTRICT

1967 GEOLOGICAL SURVEY EXPENDITURES
CHAIN GROUP OF MINERAL CLAIMS
WHITEHORSE, M. D.

GEOLOGICAL WORK

Geological mapping performed by:		
G. Parsons, geologist, 4 days @ \$50/day	\$ 200	
S.B. Butrenchuk, ass't, 4 days @ \$35/day	<u>140</u>	\$ 340
Work was performed from:		
June 24 to June 28, 1967.		

BOARD AND ROOM

8 man-days @ \$12/day		96
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TRANSPORTATION

3 hours helicopter @ \$135/hr.		<u>405</u>
		\$ 841

LIST OF PERSONNEL

- G. Parsons, Geologist, Exploration - c/o COMINCO LTD.
300-890 W. Pender Street,
Vancouver 1, B. C.
- S.B. Butrenchuk, Exploration Ass't.- c/o COMINCO LTD.
300-890 West Pender St.,
Vancouver, 1, B. C.

James Richardson

This is Exhibit "A" to the Affidavit Declaration
of JAMES RICHARDSON ~~was~~ declared before me
this 19 day of June A.D. 1968

Mal Murray
A Commissioner for taking Affidavits
within the Province of British Columbia

A Notary Public in and for the
Province of British Columbia

APPENDIX II

CANADA
PROVINCE OF BRITISH COLUMBIA
TO WIT:

STATUTORY DECLARATION RELATING TO
EXPENDITURES ON A GEOLOGICAL SURVEY OF
CERTAIN MINERAL CLAIMS LOCATED IN THE
WHITEHORSE MINING DIVISION

I, JAMES RICHARDSON, Professional Engineer of the City of
Vancouver, in the Province of British Columbia, DO SOLEMNLY DECLARE:

1. That I do personally know G. Parsons who prepared the accompanying geological report as a result of a survey carried out under my supervision on certain mineral claims optioned by Cominco Ltd.
2. That copies of the said report are being filed with the Mining Recorder in Whitehorse.
3. That attached hereto and marked with the letter "A" upon which I have signed my name at the time of declaring hereof, is a statement of expenditures incurred in connection with the geological survey of the said claims showing in addition the dates during which those making the said survey performed their work.

AND I MAKE this solemn declaration conscientiously believing it to be true and knowing that it is of the same force and effect as if made under oath and by virtue of the Canada Evidence Act.

DECLARED before me at the
City of Vancouver, in the
Province of British Columbia
this 19 day of June
1968
A.D.

James Richardson

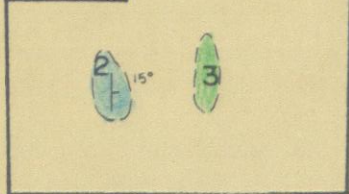
[Signature]

~~A Commissioner for Taking Affidavits~~

*A Notary Public in and for the
Province of British Columbia*







JERRY GROUP



SWIM LAKES

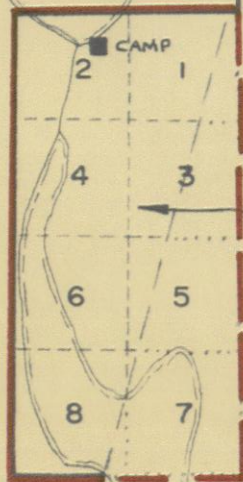
LEGEND

-  GREENSTONE
-  LIMESTONE
-  CHLORITIC PHYLLITES
-  Strike & Dip

NASTY GROUP

GROUP

LAY GROUP



CHAIN GROUP

CUB LAKE



Drawn by:		Traced by: G.K.T.	
Revised by	Date	Revised by	Date

CHAIN CLAIM GROUP

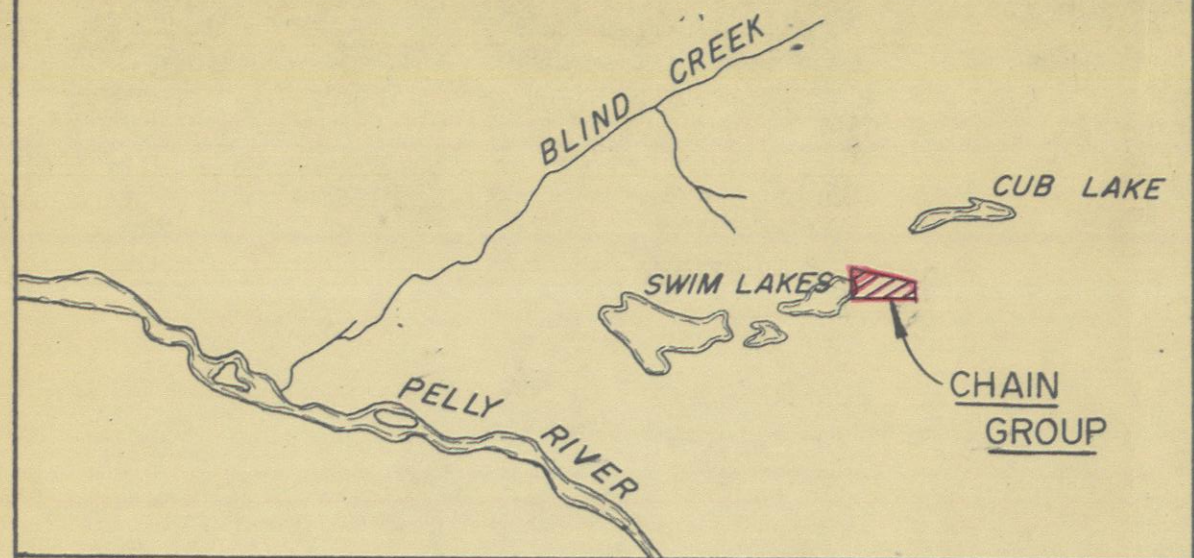
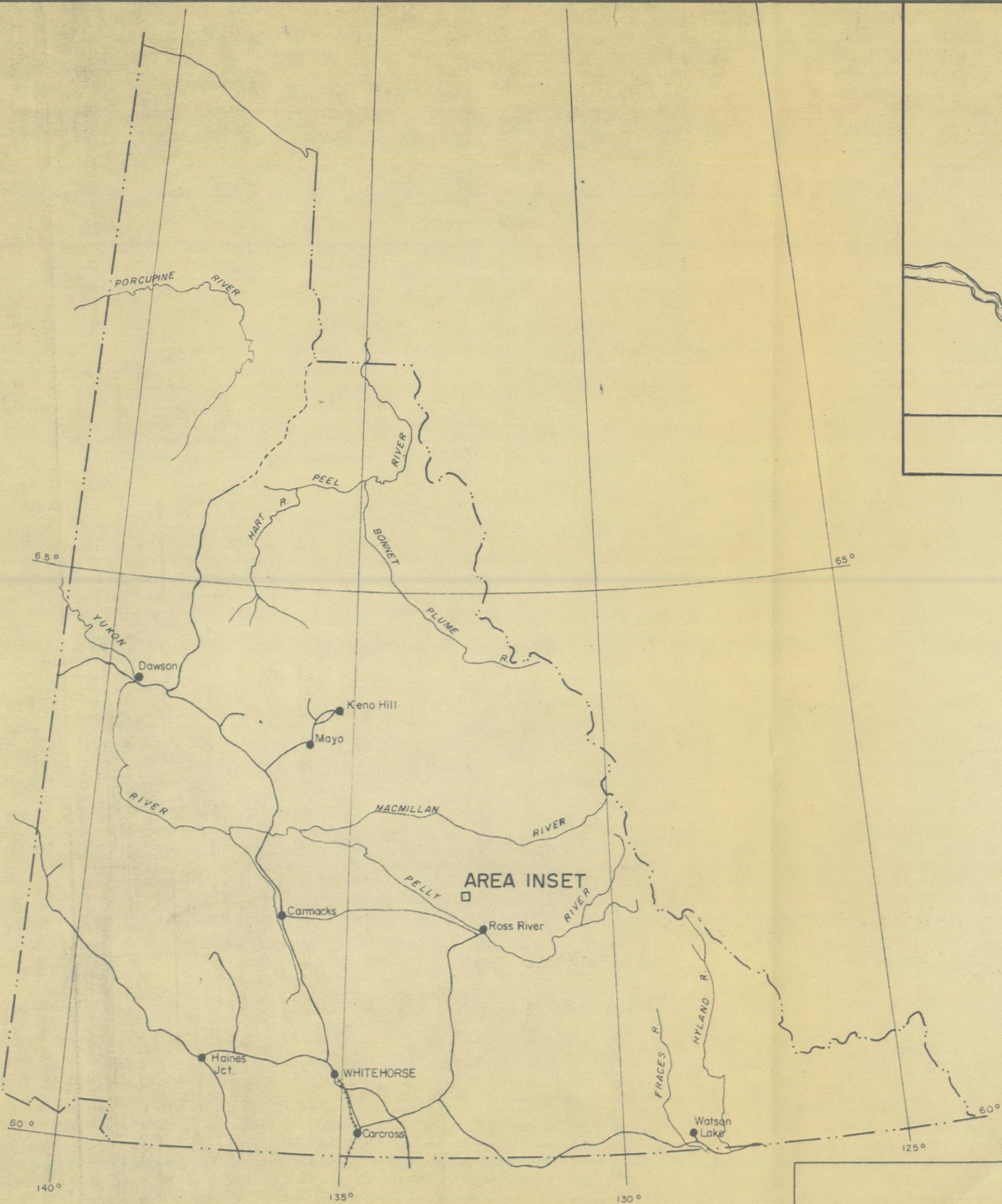
Geologic Survey
Carried out by
G. Parsons +
S.B. Butrenchuck

NTS 105 K 2

Scale: 1" = 1/2 mile

Date: JUNE 14, 1968

Plate: CHA-68-3



1" = 4 miles



Drawn by:		Traced by: G R D	
Revised by	Date	Revised by	Date
G.K.T.	JUN. 14, 68		

**CHAIN GROUP
LOCATION MAP**

NTS 105 K 2

Scale: 1" = 63.13 Miles Date: February, 1968

Plate: CHA-68-2