ASSESSMENT REPORT 1985

for the

PICK 1-10 Claims

Whitehorse Mining District

N.T.S. 115 F/16

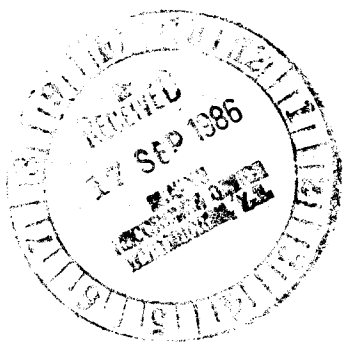
Longitude 140°17'

Latitude 62°56'

091838

Author: M.P. Webster

Date: June 24, 1986



091838

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 $ 1000.00 .

D D Emond

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

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF APPENDICES

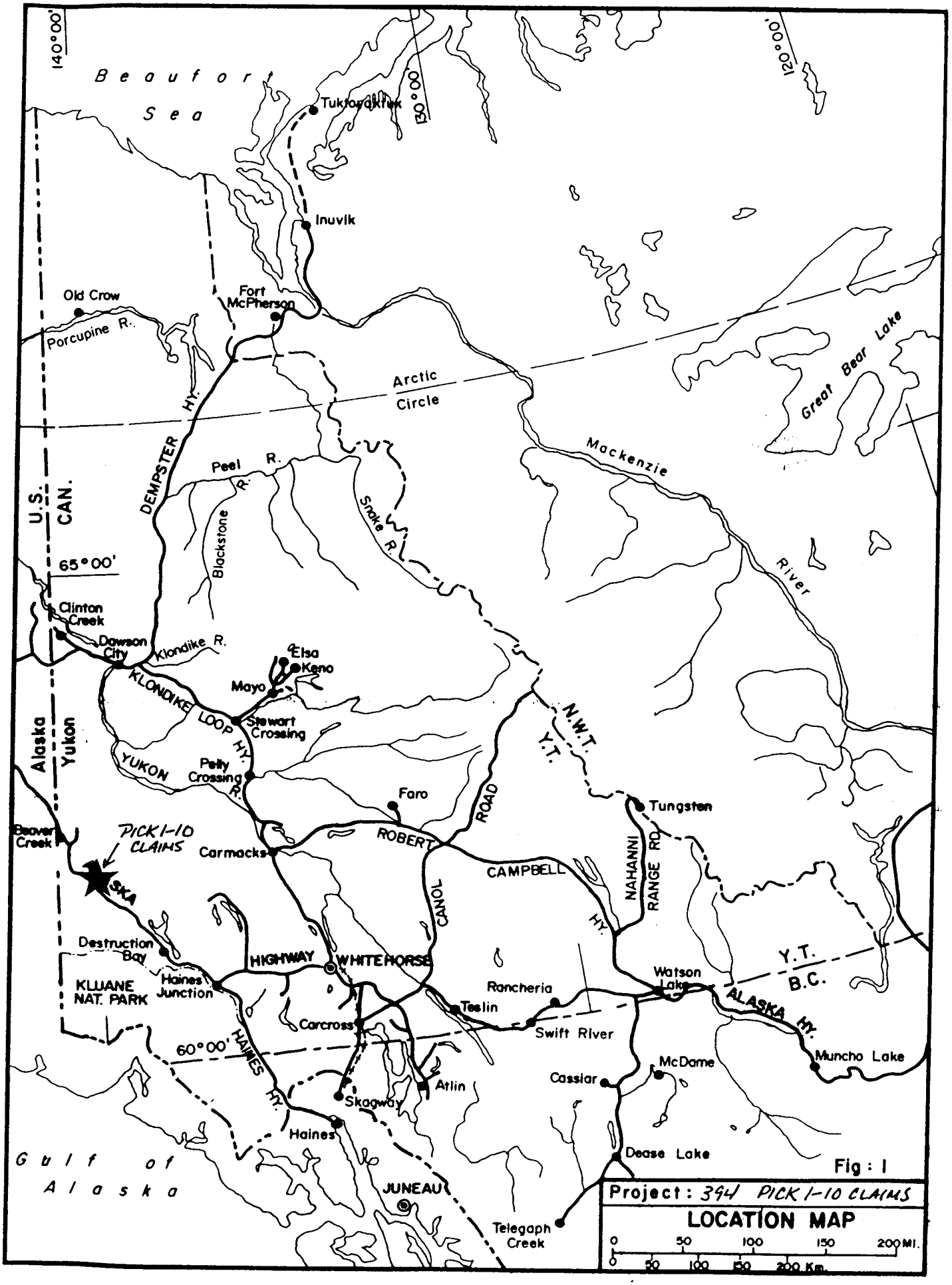
CHAPTER ONE: INTRODUCTION

1-1: INTRODUCTORY STATEMENT

The PICK 1-10 claims were staked to cover an anomalous rock sample taken as part of the 1984 Aishihik-Kluane reconnaissance program. The sample R-47567 was taken from a silicified shear zone in Precambrian Yukon Group metasediments and ran 150 ppm Cu, 2,300 ppm Zn, 900 ppm Pb, 60.0 ppm Ag, <2 ppm Mo, 24,000 ppm As and 3,100 ppb Au (0.09 oz/T Au). The preliminary follow-up stream and rock sampling program is described in this report.

1-2: LOCATION and ACCESS

The PICK claims are situated on mapsheet N.T.S. 115 F/16 at longitude 140°17′ and latitude 62°56′ approximately 6 kilometres south of Koidern, Y.T. (Figure 1). The claims lie approximately 1 kilometre east of Mile Post 1160 of the Alaska Highway east of Pickhandle Lake and access is made on foot to the property from the highway. The pipeline corridor which lies 200 metres west of the highway is cleared of trees and may provide limited 4x4 vehicle access to the west side of the property. Helicopter setouts have been used in the past to prospect the steep and elevated parts of the claims.



VANCAL 11926

1-3: PHYSIOGRAPHY and VEGETATION

The PICK claims cover the west slope of the 4,818' (1,468 m) peak east of Pickhandle Lake to a lower elevation of approximately 2,500' (762 m). Outcrop is well exposed above 3,500' (1,066 m) elevation and below this point poplar, alders and conifer trees are moderately dense. Typical alpine moss and grass vegetation cover the east part of the property and the eastern slopes of the peak. Very little outcrop is exposed to the west and south of the claims.

1-4: HISTORY of the CLAIMS

The PICK 1-10 claims (Figure 2) were recorded in Whitehorse June 24, 1985. The claims cover a Au-Ag-Zn-As anomaly found in a silicified shear zone on the PICK-6 claim. The sample was taken as part of the 1984 Aishihik-Kluane reconnaissance program conducted by Mike Savell.

Follow-up work was conducted June and July, 1985 by D. Bull, S. Abercrombie, H. Copland, M. Webster and S. MacKenzie. These programs consisted of detailed stream sampling, soil and rock sampling, prospecting and minor geological mapping.

No previous exploration is documented in the immediate claim group vicinity.

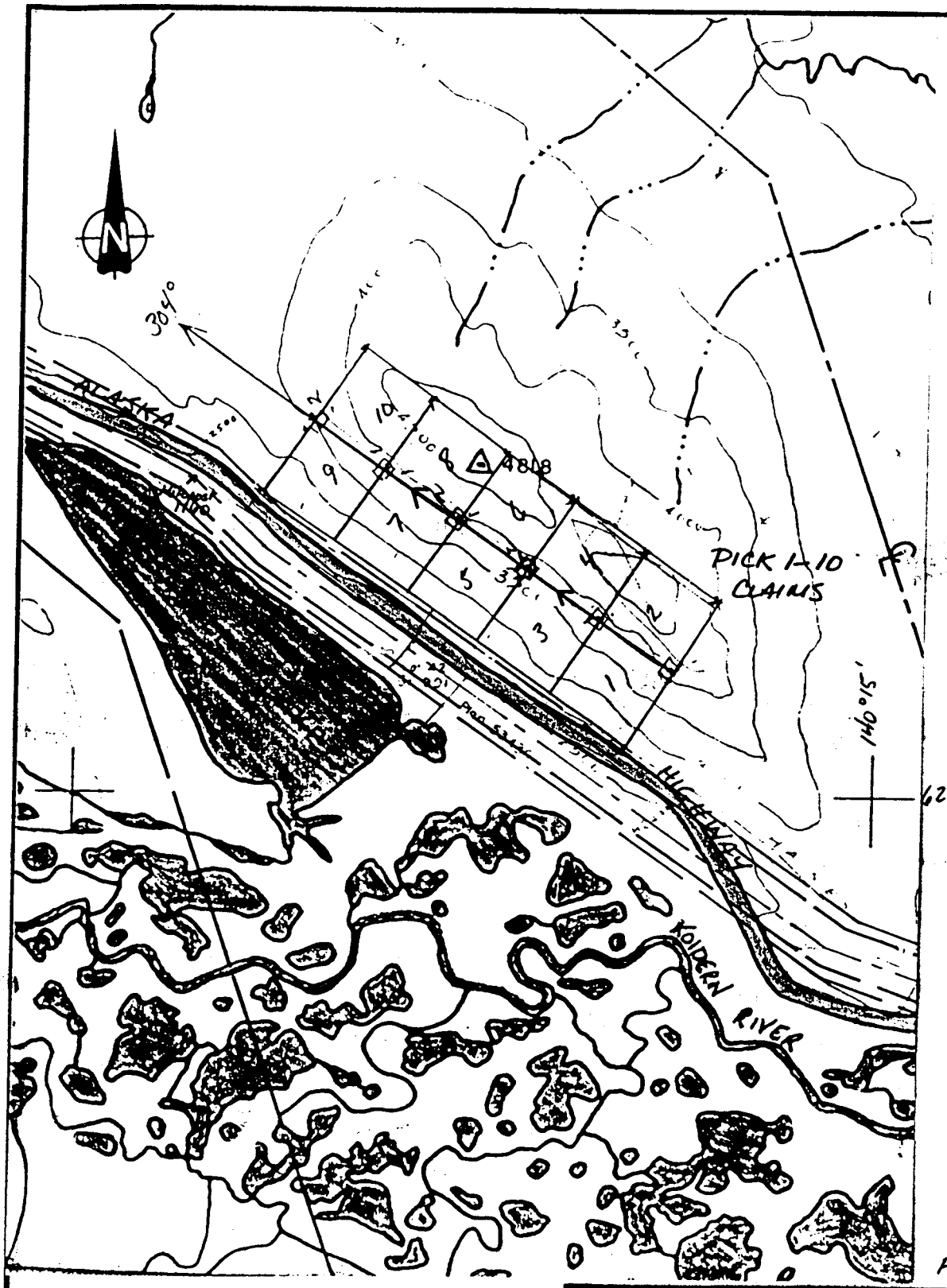


FIGURE 2

REVISED	PICK 1-10 CLAIMS
	CLAIM MAP
PROJ No. 394	SURVEY BY: _____ DATE: JUNE 86
N.T.S. 115F/16	DRAWN BY: MPW SCALE: 1:50,000
DWG. No.	NORANDA EXPLORATION
	OFFICE: WH

VANCAL 11827

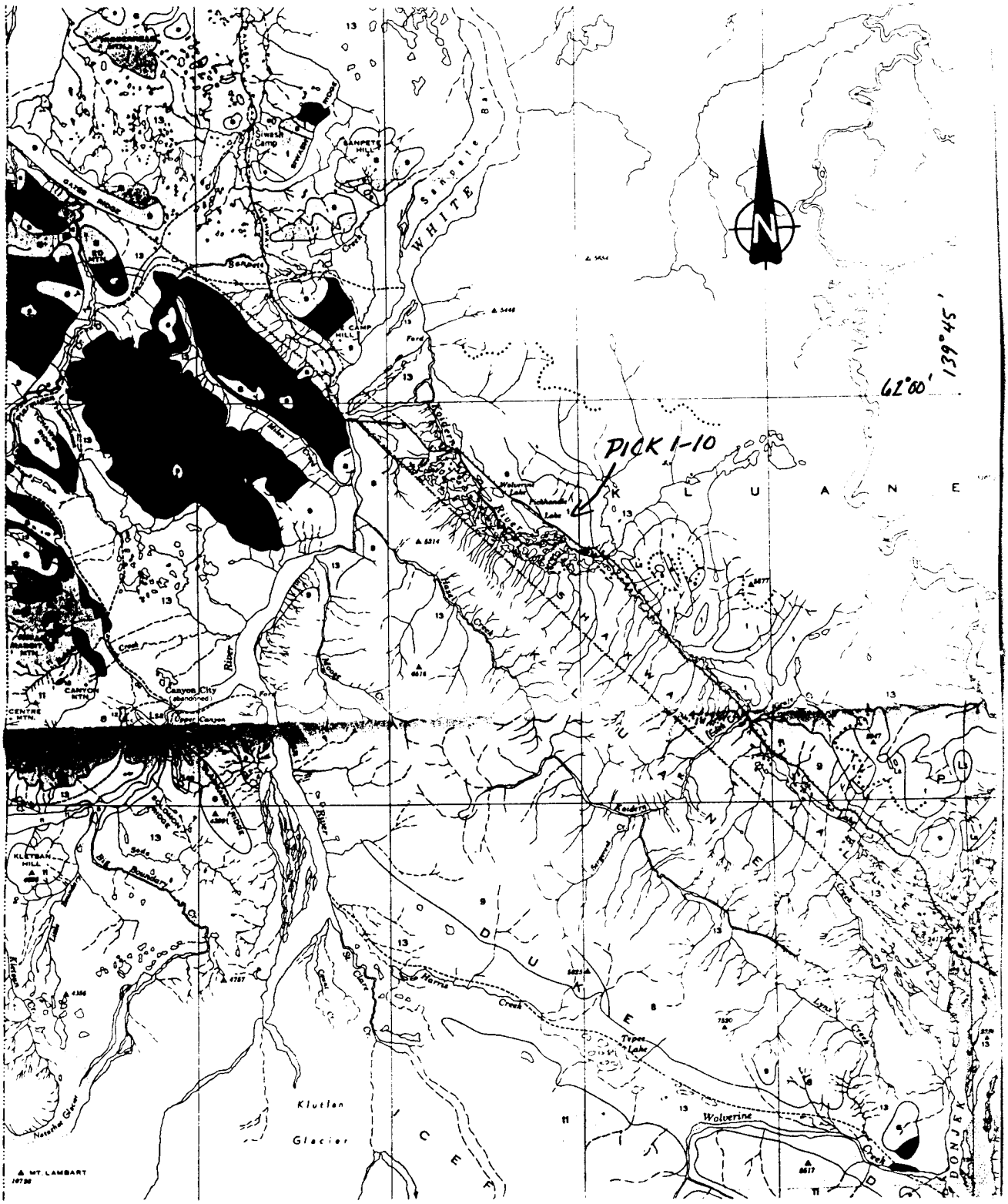
CHAPTER TWO: GEOLOGY

2-1: REGIONAL GEOLOGY

Published geological maps at scales of 1:125,000 and 1:250,000 and accompanying reports are available from the G.S.C. These have been listed in Appendix II.

In general, the project area is underlain by the Insular and Coast Belts of the Canadian Cordillera. Within the Insular Belt, the project covers areas within the Wrangellia and Alexander Terranes. These terranes consist of distinct lithological assemblages, separated by major northwest trending fault systems. The Alexander Terrane consists primarily of low grade metamorphosed, Paleozoic volcanic island arc and turbidite assemblages, with some thick carbonate reef build-ups, euxinic sediments, and local subaerial volcanics. The Wrangellia Terrane consists of a late Paleozoic submarine volcanic arc assemblage, overlain by subaerial and submarine basic volcanics and shallow marine sediments. These rocks have many similarities to the Sicker Group on Vancouver Island, and together have been termed the Sicker-Skolai Assemblage (see Tectonic Assemblage Map of the Canadian Cordillera - Map 1505A). Both terranes are covered by Tertiary non-marine clastics and subaerial calc-alkaline volcanic rocks, and intruded by Tertiary granitic stocks and sub-volcanic dykes.

The Insular Belt is separated from the Coast Belt by a major crustal



SCALE

0 10 20

KM

REVISED	FIGURE 3
	REGIONAL GEOLOGY MAP
	M. BOSTOCK, 1952
PROJ No. 394	SURVEY BY: DATE:
N.T.S. 115 E	DRAWN BY: SCALE:
DWG. No.	NORANDA EXPLORATION
	OFFICE:

VANCAL 11827

L E G E N D

CENOZOIC

QUATERNARY
PLEISTOCENE AND RECENT

13 — *Till, gravel, sand, silt, peat, soil, volcanic ash*

TERTIARY AND LATER
POST-EOCENE TO PLEISTOCENE

Rhyolite, granite porphyry, latite, and related rocks

11 — *Andesite, basalt, trachyte, latite; related pyroclastic rocks*

TERTIARY
PALEOCENE TO OLIGOCENE

Conglomerate, sandstone, shale, lignite

MESOZOIC AND CENOZOIC

CRETACEOUS AND TERTIARY (mainly)

9 — *Mainly granodiorite and granite, but including porphyries and intrusive rocks of intermediate, basic, and ultrabasic compositions; 9a, gabbro (pre-Permian); 9b, porphyry related to granitic rocks*

CRETACEOUS AND EARLIER

8 — *Andesite, diabase, basalt; related pyroclastic rocks*

CARBONIFEROUS TO CRETACEOUS

Shale, sandstone, conglomerate, limestone

PALÆOZOIC

PERMIAN

6 — *Sandstone, chert, tuff*

DEVONIAN AND/OR CARBONIFEROUS
UPPER DEVONIAN(?) AND/OR MISSISSIPPIAN(?)

Slate, phyllite, schist, limestone, quartzite, greenstone, granulite

PRE-SILURIAN TO CRETACEOUS

4 — *Undifferentiated rocks (2-8)*

DEVONIAN

3 — *Limestone*

PRE-SILURIAN TO CARBONIFEROUS

Schist, phyllite, limestone, shale, chert

PRECAMBRIAN AND (?) LATER

YUKON GROUP

1 — *Schist, quartzite, gneiss, limestone, amphibolite*

Ls — *Limestone (undifferentiated). Lss, Carboniferous limestone, with some shale and chert*

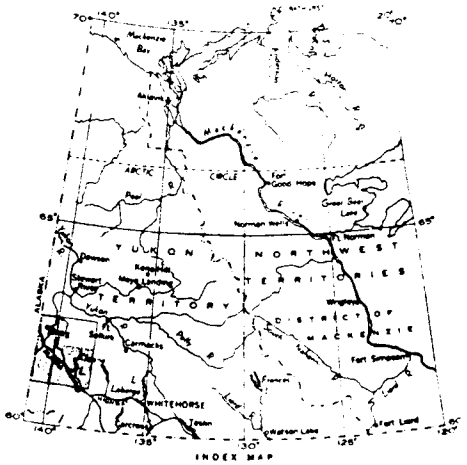
Fault (approximate, assumed)
Glacial striae
Limit of last major glaciation
Highway
Road and building
Trail
Telephone line (along highway)
Triangulation station
Stream (position approximate)
Sand and gravel bars
Glacier
Height in feet above mean sea-level

Geology compiled by H.S. Bostock from published and manuscript maps and reports, and from information derived in the field, 1945

Cartography by the Geological Mapping Division, 1951

Base-map compiled from surveys by the Topographical Survey

Approximate magnetic declination, 30°43' East



INDEX MAP

REVISED	FIGURE 4
	GEOLOGICAL LEGEND
	H. BOSTOCK, 1952
PROJ. No. 394	SURVEY BY: _____ DATE: _____
N.T.S. 115F	DRAWN BY: _____ SCALE: _____
DWG. No.	NORANDA EXPLORATION
	OFFICE: _____

VANCAL 11927

break, the Denali Fault System, which has produced the Shakwak Valley. In the project area, the Coast Belt consists primarily of Cretaceous to Tertiary granodiorite stocks (Coast Range Intrusives) that have intruded schists, amphibolites, and gneisses of the Central Gneiss complex. These have also been partially covered by Tertiary to Quaternary mafic lavas and associated felsic intrusives. For a more detailed account of the regional geology, the reader is referred to the selected bibliography (Appendix II).

2-2: PROPERTY GEOLOGY

The property is largely underlain by Precambrian Yukon Group quartz biotite schist with minor recrystallized limestone. Cretaceous granodiorite occurs on the north part of the property and displays a variety of grain sizes and degrees of bleaching and/or weathering. No significant alteration appears to be associated at the contact of these two units. Narrow felsic to aplite dykes are found intermittently in the schist. Abundant irregular quartz veins occur on the east boundary of the claims along the ridge top.

Cretaceous and Tertiary or earlier

Aplite/Felsic Dykes: fine-grained, pale pink to light beige, 10% fine-grained hornblende, 40% plagioclase, 40% quartz, minor pyrite, biotite, iron oxides and clays. Unaltered, straight contacts.

Cretaceous and Tertiary (?)

Granodiorite: fine to medium-grained, pink and white to black, 20 to 80% biotite and hornblende, 20 to 50% pink feldspar, 20 to 40% quartz, minor pyrite, iron oxides, clays. Weathered surface commonly pitted and irregular.

Precambrian Yukon Group

Quartz Biotite Schist: fine to medium-grained, interbedded narrow white quartzite or recrystallized limestone, black-grey to white schistose fabric and texture variations. Intermittent quartz veins; white bull quartz, irregular sweats. Minor pyrite, iron oxides, clays.

CHAPTER THREE: GEOCHEMISTRY

3-1: STREAM and SOIL SAMPLING PROGRAM

A total of 16 silt samples were taken from streams draining west, east and south from the property. The results are as follows:

	Values in ppm						ppb
	Cu	Zn	Pb	Mo	As	Ag	Au
S69482	24	68	2	1	1	0.2	10
S69485	34	74	2	1	8	0.2	10
S69486	30	80	2	1	1	0.2	10
S69487	36	78	2	1	4	0.2	10
S69488	34	72	2	1	1	0.2	10
S69489	52	70	2	1	1	0.2	10
S69490	38	82	2	1	1	0.2	10
S69491	30	78	2	1	1	0.2	10
S69492	30	100	2	1	1	0.2	10
S69493	42	80	2	1	6	0.2	10
S69494	32	100	2	1	6	0.2	10
S69131	48	68	2	1	8	0.2	10
S69133	34	76	2	1	6	0.2	10
S69134	30	86	4	1	6	0.2	10
S69137	46	110	6	1	2	0.2	10
S69138	30	64	2	1	1	0.2	10

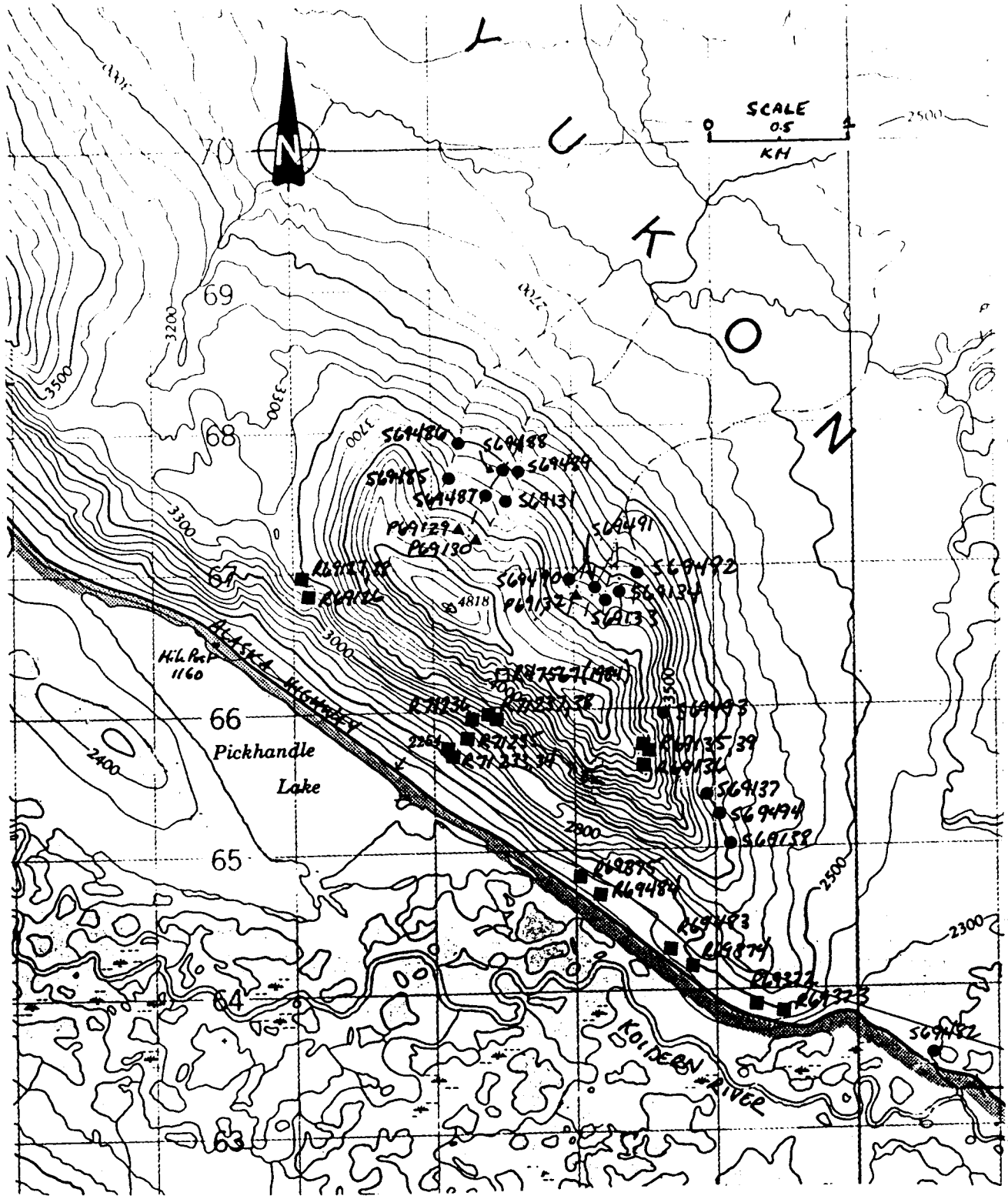
A total of 3 soil samples were taken from the headwaters of dry creeks on the east side of the property with results as follows:

	Values in ppm						ppb
	Cu	Pb	Zn	Mo	As	Ag	Au
P69129	28	2	72	1	8	0.2	10
P69130	46	6	150	2	10	0.4	10
P69132	60	2	70	1	8	0.2	10

3-2: ROCK SAMPLING PROGRAM

A total of 18 rock samples were taken from quartz veins, shear zones, felsic dykes and the contact between Cretaceous granodiorite and the Yukon Group metasediments. The rock sample (R47567, GCI 4103) taken in 1984 from a silicified shear zone which ran 150 ppm Cu, 2,300 ppm Zn, 900 ppm Pb, 60.0 ppm Ag, <2 ppm Mo, 24,000 ppm As and 3,100 ppb Au (0.091 oz/T Au) was not located or resampled during this program. Slightly anomalous silver values of 0.6 ppm Ag in samples R71233, 36 and 38 were taken from altered to brecciated or sheared Yukon Group host rocks with some silicification. The results of the rock sampling program are as follows:

	Values in ppm						ppb
	Cu	Zn	Pb	Mo	As	Ag	Au
R69126	20	18	1	1	2	0.2	10
R69127	10	8	1	1	2	0.2	10
R69128	12	10	1	1	12	0.2	10
R69135	4	22	18	1	2	0.2	10
R69136	62	130	10	1	2	0.2	10
R69139	160	40	10	1	2	0.4	10
R69372	180	58	1	1	2	0.4	10
R69373	62	40	1	1	2	0.2	10
R69374	170	120	1	1	2	0.4	10
R69375	250	88	1	1	2	0.4	10
R69483	52	76	1	1	2	0.4	10
R69484	24	130	1	1	2	0.2	10
R71233	56	70	2	1	N/A	0.6	10
R71234	12	20	2	1	N/A	0.2	10
R71235	10	30	6	1	N/A	0.4	10
R71236	58	140	2	36	N/A	0.6	10
R71237	12	30	4	1	N/A	0.4	10
R71238	6	30	8	1	N/A	0.6	10



- ● SILT SAMPLE
- ▲ SOIL SAMPLE
- ■ ROCK SAMPLE
- □ ROCK SAMPLE - 1984 PROGRAM

REVISED

FIGURE 5

PICK 1-10 CLAIMS

SAMPLE LOCATION MAP

PROJ. No. 354
N.T.S. 105E/11
DWG. No.

SURVEY BY: MAW, SAM, DR, H.C. DATE: Sept/86
DRAWN BY: HPW SCALE:

NORANDA EXPLORATION

OFFICE: WHITEHORSE

YANCAL 11/87

CHAPTER FOUR: CONCLUSIONS AND RECOMMENDATIONS

The stream sampling program failed to detect significant base or precious metal anomalies in streams draining the property. Rock samples taken from silicified shear zones in the Yukon Group returned silver values as high as 0.6 ppm Ag, however no significant gold values were found in the 1985 program. The single rock sample (R47576) taken in 1984 from the silicified shear zone which ran 3,100 ppb Au has not yet been relocated or tested. This sample lends some merit to the property and further prospecting may be warranted at some convenient time in the future. No further work is recommended at this time.

Respectfully submitted,

Mary P. Webster

Mary P. Webster
Field Geologist

STATEMENT OF QUALIFICATIONS

I, Mary P. Webster, of the City of Whitehorse, Yukon Territory do hereby certify that:

1. I have been employed as a Geologist by Noranda Exploration Company, Limited (No Personal Liability) since May 1984.

2. I am a graduate of McMaster University, Hamilton, Ontario with a B.Sc. in Geology.

3. I am a member of the Prospector's and Developers Association and the B.C. and Yukon Chamber of Mines.

4. I am a member of the Yukon Professional Geoscientists Society.

5. I supervised and carried out part of the work described in this report.

Mary P. Webster
Field Geologist
Noranda Exploration Co. Ltd.
(No Personal Liability)

STATEMENT OF COSTS

Project: PICK 1-10 Claims

Labour:		
6 mandays @ 120.00 per day		720.00
Transportation and Lodging:		250.00
Sample Preparation and Analysis:		
37 samples @ $15.00 each		555.00
Sample Shipment:		100.00
Report Writing and Data Compilation:		
3 mandays		360.00
	TOTAL	$1,985.00

APPENDIX I

ROCK SAMPLE DESCRIPTIONS

NORANDA EXPLORATION COMPANY, LIMITED

PROPERTY Pick 1-10 cl. GCI. - 50470 - Aishihik Kluane Project. N.T.S. 115 F/16

SAMPLE REPORT

SAMPLE NO.	LOCATION & DESCRIPTION	TYPE	WIDTH	ASSAYS	SAMPLED BY
1233	greenstone - massive, dk green - small (< 1cm wide qtz, calcite veins across it) very slight schistosity				SAM
2341	- qtz vein within biotite, musc schist - < 1% disem pyrite	float			SAM
235	qtz vein - nr v rusty sulphides	float			DRB
236	very altered breccia, hematite, very Fe stained, qtz matrix and qtz feldspar angular fragments very little mafics < 2% disem sulphides (py) is the matrix	float			DRB
237	qtz vein within biotite muscovite schist < 1% disem mineralization - perfect pyrite octahedrons - sweated out	c/c grab			SAM
38	sweated out qtz pods - some Fe staining but no visible sulphides - found within biotite				SAM DRB

NORANDA EXPLORATION COMPANY, LIMITED

N.T.S. 115 H/2

PROPERTY Aishihik - Kluane

GCI #633

SAMPLE REPORT

SAMPLE NO.	LOCATION & DESCRIPTION	TYPE	WIDTH	ASSAYS	SAMPLED BY
69483	Meta-volcanic: (Rhyolite tuff?) med to dk green, intense silicification moderate Fe stain, moderate chlorite, moderate biotite development. Glassy barren qtz pods few cm across, intense small scale folding	Grab			HE
69484	Meta-volcanic (Rhyolite tuff?) as above, fine grained almost gneissic appearance, stringers & disseminated pyrrhotite (py)? 1-2% ox composition chlorite-biotite-qtz	Grab			HE

NORANDA EXPLORATION COMPANY, LIMITED

N.T.S. 115 F/16

PROPERTY Aishihik Kluane

G.C.I. 633

SAMPLE REPORT

SAMPLE NO.	LOCATION & DESCRIPTION	TYPE	WIDTH	ASSAYS	SAMPLED BY
69372	Metavolcanic - fresh and weathered surface dark green, chlorite and epidote rich, quartz rich - 60% of rock as quartz eyes and veins (concordant with schistocity)	Grab			L.a.
69373	Quartz - K feldspar Rich Vein - found within metavolcanic (R69372) concordant with schistocity, vein approximately 4 cm in width	Grab			L.a
69374	Metavolcanic - green color on weathered surface, fresh surface purplish color ⇒ biotite flakes up to 1.5 mm in diameter and locally 50% of rock, locally up to 1% pyrrhotite	Grab			L.a.
69375	Metavolcanic - as in R69374, biotite rich - biotite flakes up to 0.5 mm in diameter, pyrrhotite locally 2-3% of rock, blebs up to 3 mm in diam.	Grab			L.a.

NORANDA EXPLORATION COMPANY, LIMITED

N.T.S. 115/6 16

PROPERTY Pick Lander Lake

SAMPLE REPORT

MPLE NO.	LOCATION & DESCRIPTION	TYPE	WIDTH	ASSAYS Cu	Pb	Zn	Mo	Ag	As	Au	SAMPLED BY
69135	Limestone; white crystalline (3mm diam) grey weathered surface, bedded white to dark grey units 1cm wide, no visible sulphides Silicified 312°/52°E Shearing 3m wide 50m	Grab									MPW ba, W Sm
69136	Schist, volcanic (andesite?) strong foliation, banding mafics (biotite, chl chlorite,) felsics (qtz, minor carbonate) up to 1cm - ave 4mm wide. Structural contortion. Pyrite up to 5% along fol planes, 1% pyrrhotite	Grab									MPW
9139	Calcsilicate - light green, red patches within crystalline siliceous limestone as 69135 but no banding no visible sulphides	Grab									MPW Barite W Sm

NORANDA EXPLORATION COMPANY, LIMITED

N.T.S. 115F/16

PROPERTY Picklandle Lake

SAMPLE REPORT GCE 633

SAMPLE NO.	LOCATION & DESCRIPTION	TYPE	WIDTH	ASSAYS	SAMPLED BY
R9126	Quartz-carbonate altered andesite(?), strong ~~cat~~ structural contortion and granulation to rounded crystals up to 0.5cm diam. White to bright green patches malachite stain, manganese specks of bornite < 0.1cm diam.	Float			MPW
R9127	Quartz-carbonate vein(?). Massive, white crystalline approx 3mm diam, intergrown, weathers chalky to grey, no visible sulfides	Float			MPW
R9128	Quartz-carbonate vein(?). As R6.9127 narrow stringer 1mm wide of ~~carbonate~~ calcite. Thick clay alteration 3cm wide on either side of Q-Carb which is 6cm wide. No visible sulphides	Float no split Flo			MPW

APPENDIX II

BIBLIOGRAPHY

BIBLIOGRAPHY

Boatock, H.S., 1952. Geology of northwest Shakwak Valley, Yukon Territory. G.S.C. Memoir 267, 54 p.

Campbell, R.B. and Eisbacher, G.H., 1974. Operation St. Elias, Yukon Territory. Report of Activities, April to October 1973, G.S.C. Paper 74-1, Part A, p. 11-12.

Campbell, R.B. and Dodds, C.J., 1975. Operation St. Elias, Yukon Territory. Report of Activities, April to October 1974, G.S.C. Paper 75-1, Part A, p. 51-53.

Campbell, R.B. and Dodds, C.J., 1978. Operation St. Elias, Yukon Territory. Current Research, Part A, G.S.C. Paper 78-1A, p. 35-41.

Campbell, R.B., et. al., 1979. OFT 829, 830, 831: Geology of S.W. Kluane Lake (115G & 115F, E1/2); Mt. St. Elias (115B & C, E1/4); and S.W. Dezadeash (115A) Map Areas, Yukon Territory.

Campbell, S.W., 1981. Geology of copper deposits and some related host rocks in and near the Quill Creek area, Kluane Ranges, S.W. Yukon. Unpub. Ph.D Thesis, University of British Columbia, Vancouver, B.C.

Downey, M.E., 1978. Geology, K-Ar and Rb-Sr Geochronometry and Chemistry of the Bock's Brook Stock in Kluane Ranges, Southwestern Yukon. Unpub. B.Sc. Thesis, University of British Columbia, Vancouver, B.C.

Eisbacher, G.H., 1975. Operation St. Elias, Yukon Territory; Dezadeash Group and Amphitheatre Formation. Report of Activities, April to October 1974, G.S.C. Paper 75-1, Part A, p. 61-62.

Eisbacher, G.H., 1976. Sedimentology of the Dezadeash flysch and its implications for strike-slip faulting along the Denali Fault, Yukon Territory and Alaska. Can. Journal Earth Sciences, Volume 13, p. 1495-1513.

Eisbacher, G.H. and Hopkins, S.L., 1977. Mid-Cenozoic paleogeomorphology and tectonic setting of the St. Elias Mountain, Yukon Territory. Report of Activities, Part B, G.S.C. Paper 77-1B, p. 319-335.

Kindle, E.D., 1953. Dezadeash map area, Yukon Territory. G.S.C. Memoir 268, 68 p.

Muller, J.E., 1967. Kluane Lake map area, Yukon Territory. G.S.C. Memoir 340, 137 p.

Rampton, V.N., 1981. Surficial materials and landforms of Kluane National Park, Yukon Territory. G.S.C. Paper 79-24, 37 p.

Read, P.B. and Monger, J.W.H., 1975. Operation St. Elias, Yukon Territory; the Mush Lake Group and Permo-Triassic rocks in the Kluane Ranges. Report of Activities, April to October 1974, G.S.C. Paper 75-1, Part A, p. 55-59.

Read, P.B., 1976. Operation St. Elias, Yukon Territory; pre-Cenozoic volcanic assemblages in the Kluane Ranges. Report of Activities, Part A, G.S.C. Paper 76-1A, p. 187-193.

Read, P.B. and Monger, J.W.H., 1976. Pre-Cenozoic volcanic assemblages of the Kluane and Alsek Ranges, southwestern Yukon Territory. Unedited report to accompany G.S.C. Open File 381.

Sharp, R.P., 1943. Geology of the Wolf Creek area, St. Elias Range. Bill. Geological Society of America, vol. 54, p. 625-650.

Sharp, R.P. and Rigsby, G.P., 1956. Some rocks of the central St. Elias Mountains, Yukon Territory. American Journal of Science, vol. 254, p. 110-122.

Souther, J.G. and Stanchiu, C., 1975. Operation St. Elias, Yukon Territory; Tertiary volcanics. Report of Activities, April to October 1974, G.S.C. Paper 75-1, Part A, p. 63-70.

COMPANY REPORTS

Ball, N.A., 1982. Summary Report of Activities for the Aishihik Reconnaissance Program, 1982. Noranda Exploration Company, Limited (N.P.L.)

Rogers, R.S., 1983. Project Summary - Aishihik-Kluane Regional Project 907. Noranda Exploration Company, Limited (N.P.L.).

Rogers, R.S., 1982. Placer Mining Inventory - Kluane Lake Map Area. Noranda Exploration Company, Limited (N.P.L.).

Savell, M., 1984. Aishihik-Kluane Regional Project No 85, Report of Activities 1984 Program. Noranda Exploration Company, Limited (N.P.L.).