COMINCO LTD.

EXPLORATION

WESTERN DISTRICT

NTS: 105 O/1,2

LINECUTTING, GEOLOGICAL

ASSESSMENT REPORT

ON THE

NIDD PROPERTY - 28 Claims

IN THE HESS MTNS. RANGE OF MACMILLAN PASS AREA

Situated at

63°11'N 130°21'W

Mayo Mining District, Yukon Territory

WORK PERFORMED: JUNE 8, 1982 - JUNE 25, 1982

AUGUST 12, 1982

P.M. SCOTT

091071

This report has been examined by the Mineral Evaluation Unit under Section 53 (4) Yukon Quartz Mining Act and is allowed as representation work in the amount of $ 4,865

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

TABLE OF CONTENTS

ATTACHMENTS

COMINCO LTD.

EXPLORATION
NTS: 105 O/1,2

WESTERN DISTRICT
12 August 1982

ASSESSMENT REPORT

ON THE

NIDD PROPERTY - 28 Claims

Mayo Mining District, Yukon Territory

I. INTRODUCTION

The Nidd (483-496, 507-520) claims were staked between 1976 and 1981 to cover the westerly strike extension of the stratigraphy which hosts the nearby Tom and Jason lead-zinc-silver deposits.

The property is underlain by the Ordovician-Silurian Road River Group and the Devono-Mississippian Earn Group. This latter group is divided into the Canol and Imperial formations.

The linecutting and geological mapping described in this report was carried out between June 8 and June 25, 1982.

II. LOCATION AND ACCESS

The Nidd property is located approximately 240 miles northwest of Whitehorse, and 15 miles west of MacMillan Pass at 63°11'N, 130°21'W on NTS sheets 105 O/1 and 2. Access is by good gravel road to the MacMillan Pass airstrip, then by helicopter to the camp which is central to the claim group.

III. TENURE

Assessment work is being reported on the following claims:

Claim	Date Due	Claim	Date Due
Nidd 483	June 25, 1982	Nidd 507	June 25, 1982
Nidd 484	June 25, 1982	Nidd 508	June 25, 1982
Nidd 485	June 25, 1982	Nidd 509	June 25, 1982
Nidd 486	June 25, 1982	Nidd 510	June 25, 1982
Nidd 487	June 25, 1982	Nidd 511	June 25, 1982
Nidd 488	June 25, 1982	Nidd 512	June 25, 1982
Nidd 489	June 25, 1982	Nidd 513	June 25, 1982
Nidd 490	June 25, 1982	Nidd 514	June 25, 1982
Nidd 491	June 25, 1982	Nidd 515	June 25, 1982
Nidd 492	June 25, 1982	Nidd 516	June 25, 1982
Nidd 493	June 25, 1982	Nidd 517	June 25, 1982
Nidd 494	June 25, 1982	Nidd 518	June 25, 1982
Nidd 495	June 25, 1982	Nidd 519	June 25, 1982
Nidd 496	June 25, 1982	Nidd 520	June 25, 1982

Work was carried out on these claims between June 8 and June 25, 1982.

IV. LINECUTTING

A wide spaced grid, totalling 106 km, was cut over the entire property during the months of June and July, 1982 to assist in the ground control of the geological mapping. Of this total, 3.1 kms were cut on the claims listed in this report.

V. GEOLOGY

The Nidd Property is underlain by sediments and volcanics of the Road River and Earn Groups. The overall regional geology is described in various reports by government geologists and has received detailed work in recent years because of the economic potential of the area as suggested by the Tom and Jason properties.

The following stratigraphic breakdown is extracted from the overall Nidd property stratigraphy as developed by Cominco geologists during 1982. Only the units within the area of this report are listed.

A. Road River Group

(i) R3

A sequence of medium grey to black volcaniclastic mudstones, siltstones, and occasional fine grained sandstones, with interbedded volcanics. The clastic sediments are moderately carbonaceous and occasionally are calcareous or dolomitic. The volcanics are usually pale to light green, fine grained tuffs with dacitic to rhyolitic composition. Locally agglomerates are present, often with high content of mudstone and siltstone clasts.

(ii) R4

Pale greenish grey mudstone or siltstone with dark grey to black discontinuous laminae, often distinctly wispy in appearance. Commonly it is non-carbonaceous and weakly to moderately calcareous. It sometimes exhibits good bioturbation and nodular pyrite. It is typically pale to strongly orange weathered, and is referred to as the "Orange Marker" unit.

(iii) R5e

Dark grey to black thinly interbedded mudstones, siltstones, and occasional fine grained sandstones. It is moderately carbonaceous and calcareous and commonly weathers brownish. Very often, it is interbedded with other R5 lithologies.

(iv) R5d

A sequence of finely laminated grey to black mudshales and mudstones. Occasionally thin calcarenite interbeds are present. Usually it is moderately to very carbonaceous and calcareous. This unit usually is orange-brown and weathers recessively.

(v) R6

A sequence of intermediate to felsic volcanics. They are carbonate rich and are calc-alkaline. The sequence comprises tuffs, flows, and locally agglomerates. All of these volcanics are distinctly iron rich. They weather a striking deep orange colour.

(vi) R7

The volcanics of this unit are similar to the ones described under unit R6, except that they tend to have a sideritic rich matrix.

B. Canol Formation

(i) C1d

A sequence of dark grey to black, moderately carbonaceous mudshales, mudstones, and siltstones, with occasional thin, fine grained sandstone bands. They are non-calcareous and non silicified, and exhibit many features that are associated with distal turbidites. They weather dark grey or rusty-brown.

(ii) C2a

Chert pebble conglomerate sequence. It ranges from fine to very coarse grained and is of variable thickness. It is composed almost entirely of chert pebble clasts, with occasional mudstone or siltstone clasts. The chert clasts vary in colour and range from sub-angular to rounded. The matrix is siliceous and ranges from grey-green to black. The coarser conglomerates are poorly sorted, often bimodal, whereas the finer ones are moderately to well sorted and unimodal.

(iii) C3a

A sequence of very carbonaceous mudstones and mudshales that overlie unit C2a in some areas. This is very carbonaceous, non-calcareous and weathers silvery-grey. Locally it contains plant fragments.

(iv) C3aii

A sequence of interbedded siltstone, mudstone and mudshale with occasional fine grained sandstones. It is fine to medium bedded, with distal turbidite features. Occasionally it contains plant fragments. Typically it is brown to red-brown weathering.

(v) C3aiii

Olive to brown-grey calcareous mudstone. It is intensely weathered and very hydroscopic.

(vi) C3aiv

Chert pebble conglomerate. Similar to that described for unit C2a.

C. Structure

Much of the area described in this report has very little outcrop. Structure is inferred mainly from areas mapped just outside the area. The current interpretation shows a series of gently plunging broad anticlines and synclines, although unexposed fault structures may also be present. More detail work (trenching and diamond drilling) would be necessary to further the understanding of the structure.

VI. CONCLUSIONS AND RECOMMENDATIONS

The Road River and Canol formations can be broken into correlatable units in this area. More detailed work is necessary to further evaluate the economic potential of the Nidd property in the area covered by this report.

VII. ATTACHMENTS

A) Affidavit

B) Statement of Expenditures

C) Statement of Qualifications

D) Geological Map - Scale 1:5,000

Report by: Philip Scott
P.M. Scott, Geologist

Endorsed by: Derek Rhodes
D. Rhodes, Senior Geologist

Approved for Release by: Jon Hoolihan for
G. Harden, Manager
Exploration, Western District

PMS/skm
Distribution
Mining Recorder (2)
Western District (1)

COMINCO LTD.

EXPLORATION
NTS: 105 O/1,2

WESTERN DISTRICT
12 August 1982

APPENDIX A

IN THE MATTER OF THE YUKON QUARTZ MINING ACT

AND IN THE MATTER OF A GEOCHEMICAL AND GEOLOGICAL SURVEY

CARRIED OUT ON MINERAL CLAIMS

NIDD 483-496, 507-520

LOCATED IN THE WHITEHORSE MINING DIVISION,

YUKON TERRITORY,

MORE PARTICULARLY NTS:

105 O/1,2

A F F I D A V I T

I, P.M. Scott, of the City of Toronto, in the Province of Ontario, Geologist, make oath and say-

1) THAT I am employed as a geologist by Cominco Ltd. and, as such have a personal knowledge of the facts to which I hereinafter depose;

2) THAT annexed hereto and marked as "Appendix C" to this my affidavit is a true copy of expenditures on a geological survey carried out on mineral claims NIDD 483-496, 507-520;

3) THAT the said expenditures were incurred between the 8th day of June 1982 and the 25th day of June 1982, for the purpose of mineral exploration on the above noted claim group.

Signed: Philip Scott
P.M. Scott
Geologist

COMINCO LTD.

EXPLORATION
NTS: 105 O/1,2

WESTERN DISTRICT
12 August 1982

APPENDIX B

Statement of Expenditures

on Nidd 483-496, 507-520 Claims

Period of Work: June 8, 1982 - June 25, 1982

I. Linecutting

Carried out by McCrory Holdings of Whitehorse Y.T.		
Total 3.1 km @ $350/km	$1,085	
Helicopter support 1.5 hr. @ $600	900	
		$1,985

II. Geological Mapping

E. Olfert	4 days @ $206	$ 824	
B. Waters	1 day @ $206	206	
P. Scott	3 days @ $160	480	
D. Coolidge	1 day @ $110	110	
			$1,620

III. Other Charges

Geological - Helicopter Access 1.5 hr. @ $600	$ 900	
Domicile - 9 man days @ $40	360	
Miscellaneous equipment and supplies - @ $10/day	90	
		$1,350
TOTAL:		$4,955

Philip Scott

COMINCO LTD.

EXPLORATION
NTS: 105 O/1,2

WESTERN DISTRICT
12 August 1982

APPENDIX C

Statement of Qualifications

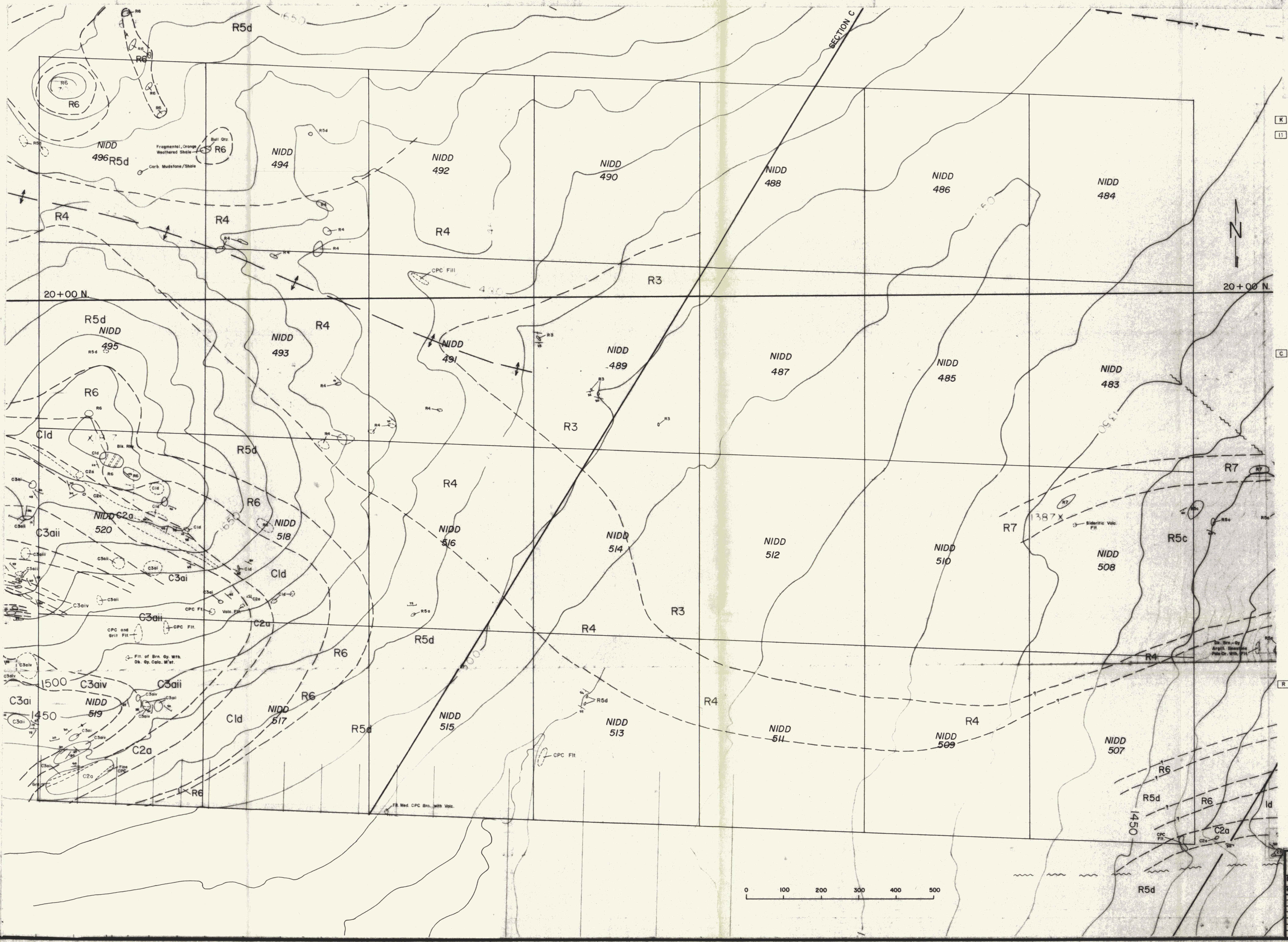
I, Philip Scott, with home address at #705-43 Thorncliffe Pk. Drive, Toronto, Ontario, do hereby certify that I have performed the field work and have assessed and interpreted the data resulting from this geological survey on the NIDD Mineral Claims.

I also certify-

1) THAT I am a graduate of the University of Acadia, M.Sc. Geology in 1980;

2) THAT I have engaged in mineral exploration in Canada since graduation.

Signed: Philip Scott
P.M. Scott, Geologist



LEGEND

[K] Cretaceous [I] Granitic Intrusives [2] Cret Feldspar Porphyry Dykes

[11] Devonian - Mississippian - U. Earn Gp - Imperial Fm

- [b] Orange weathering, planar to ripple laminated, med to thick bedded. Resistant coarse siltstone to coarse sandstone
- [a] Interbedded Siltstones (as above & rusty brown/grey weathering) mudshale

[3] Upper member above major chert pebble conglomerate unit

- [b] V carbonaceous finer clastics unit, dominantly silver gy. wth. but also brown weathering
  - [vi] Barite, massive to laminated
  - [v] S'st, fine to medium, black carbonaceous (rec. by Cord. Eng.)
  - [iv] Siltstone / Mudstone l - laminated, m - massive, silicified, brown and/or grey weathering
  - [iii] Mudshale - carbonaceous, black - brown and/or grey weathering
  - [ii] Mudshale - v. carbonaceous, silvery grey weathering
  - [i] Mudstone / Siltstone - v. carbonaceous, silvery grey weathering
- [a] M carbonaceous generally coarser clastics, often turbidites, dominantly brown weathering
  - [vii] Breccia / Cgl - Slump - Intraclastic Deposit
  - [vi] Chert grain S'st, Silica cement (as 2c)
  - [v] Chert grain Grit, Silica cement (as 2b)
  - [iv] Chert Pebble Cgl., Silica cement (as 2a)
  - [iii] Olive brown/green calcareous Mudstone intensely weathered, v. hygroscopic
  - [ii] Interbedded S'st / St'st / Mudstone, brown weathering, fine to coarse grained fine to medium bedded - turbidite features often, sometimes plant fragments
  - [i] Silvery grey weathering Mudstone / Mudshale w. plants fragments locally

[C] Devonian L. to M. Earn Gp Canol Fm Complex unit w rapid facies changes & drastic thickness variation

[2] Middle member of v. variable thickness composed of chert and siliceous silt to coarse pebble clasts commonly in silica cement matrix. Coarser rocks are poorly sorted, often bimodal. Finer rocks are well to moderately sorted. Beds of identical comp. can repeat in 3a and 1

- [c] S'st
- [b] Grit
- [a] Cgl

Suffix Modifiers: mst mudstone matrix supported; jsp jasperoid; py pyritic; sph sphalerite; sid sideritic

[iii] fine [ii] medium [i] coarse

[1] Lower member brown wth. fine to coarse clastic sequence. Turbidite characteristics similar to many of 3a lithologies

- [d] Laminated Mudstone / Siltstone. Fine turbidites, non-calcareous, non-silicified. Grey - rusty brown weathering
- [c] S'st (as 2c) but thin interbedded
- [b] Cgl / Grit (as 2a, b) but thin interbedded
- [a] Silvery grey mudstone / mudshale, often w plant fragments sometimes silicified

[9] Massive to laminated Barite

[8] Black carbonaceous mod calc M'st. (i) cherty (ii) baritic (Upper cherty mudstone)

[7] Siderite volcanics

[6] Volcanic intermed. to felsic CO_3 rich "calc-alkaline" volcanics

- [h] Cgl / Bx / Slump
- [g] Volcaniclastic Sediments
- [f] Intermediate to Felsic Agglomerates
- [e] Intermediate to Felsic Tuff
- [d] Pyrox / Amphib Phenocryst Intermediate Flow
- [c] Mica Phenocryst Intermediate Flow
- [b] Black Rhyolite Flow / Tuff
- [a] Coarse Intrusive Phase

[R] Silurian - Ordovician Road R. Fm generally fine to medium grn. calc

[5] Calcareous mudstone unit

- [e] Calcareous, carbonaceous S'st, St'st, M'st and thin to med. bedded, often silicified / sideritised.
- [d] Calcareous, carbonaceous M'st, M'sh finely lam., orange, brown, recessive, weathering occasional calcarenite interbeds
- [c] S'st, St'st, M'st
- [b] Very carbonaceous l'st Dark gy to black, lt grey weathering w. tentaculites, sometimes crinoidal. Lt grey, thinly bedded l'st.
- [a] Dolomite unit

[4] Orange weathering marker - Mudstone w silt lenses ripples flaser bedding bioturbated, orange wth., nodular pyrite

[3] Fe stn / brown wth. grey mudstone & siltstone occasionally calcareous or dolomitic greenish tuff & cherts. Agglomerate - fragments of M'st & St'st

[2] V. black carbonaceous, slightly siliceous M'st w. local debris flows graptolitic (Lower cherty mudstone)

PWJ

NIDD PROPERTY

091071

105-O-1

Drawn by: P. S.		Traced by: a.m.b.	
Revised by	Date	Revised by	Date
J.P.S	AUG/82		

GEOLOGICAL MAP

NIDD CLAIMS 483-496 & 507-520 incl.

MAYO M.D. YUKON

Scale: 1:5000 Date: Aug. 10, 1982 Plate:

NCI - 119 - C.L.

FORM 210 - 0660