

COMBINED GEOLOGICAL AND GEOCHEMICAL REPORT

MAD GROUP

62° 28'N      129° 15'E



NAHANI MINING DIVISION

105 I/12

P.M. McAndless  
J.D. Knauer  
G.E. Dirom, P. Eng.

Noranda Exploration Company Limited

July 18 - July 27, 1973  
August 10 - August 11, 1973

66-1169

This report has been examined by the Geological Evaluation Unit and is recommended to the Commissioner to be considered as representation work in the amount of \$6541.55

*D.B. Craig*  
 Resident Geologist or  
 Resident Mining Engineer

Considered as representation work under Section 53 (4) Yukon Quartz Mining Act.

*[Signature]*  
 Commissioner of Yukon Territory

Table of Contents

	<u>Page</u>
INTRODUCTION .....	1
Location Map - Fig. 1	
GEOLOGY .....	2
Stratigraphy	
Structure	
Mineralization	
GRID PREPARATION .....	4
GEOCHEMICAL STREAM SEDIMENT SURVEY .....	4
Sampling Method	
Laboratory Determination Method	
Presentation of Results	
Discussion of Results	
GEOCHEMICAL SOIL SURVEY .....	5
Sampling Method	
Laboratory Determination Method	
Preparation of Results	
Discussion of Results	
CONCLUSIONS AND RECOMMENDATIONS .....	6
APPENDIX I	
Statement of Qualifications	
APPENDIX II	
Statutory Declaration	
Application for a Certificate of Work	
Application to Group Mineral Claims	
APPENDIX III	
Expenditures Incurred in Performing the Work Including All Statements and Vouchers	
MAPS IN POCKET	
Claim Map - Fig. 2	
Geology Map - Fig. 3	
Geochemistry Maps - Fig. 4, Fig. 5, Fig. 6, Fig. 7, Fig. 8	

COMBINED GEOLOGICAL  
and  
GEOCHEMICAL REPORT  
on the  
MAD GROUP

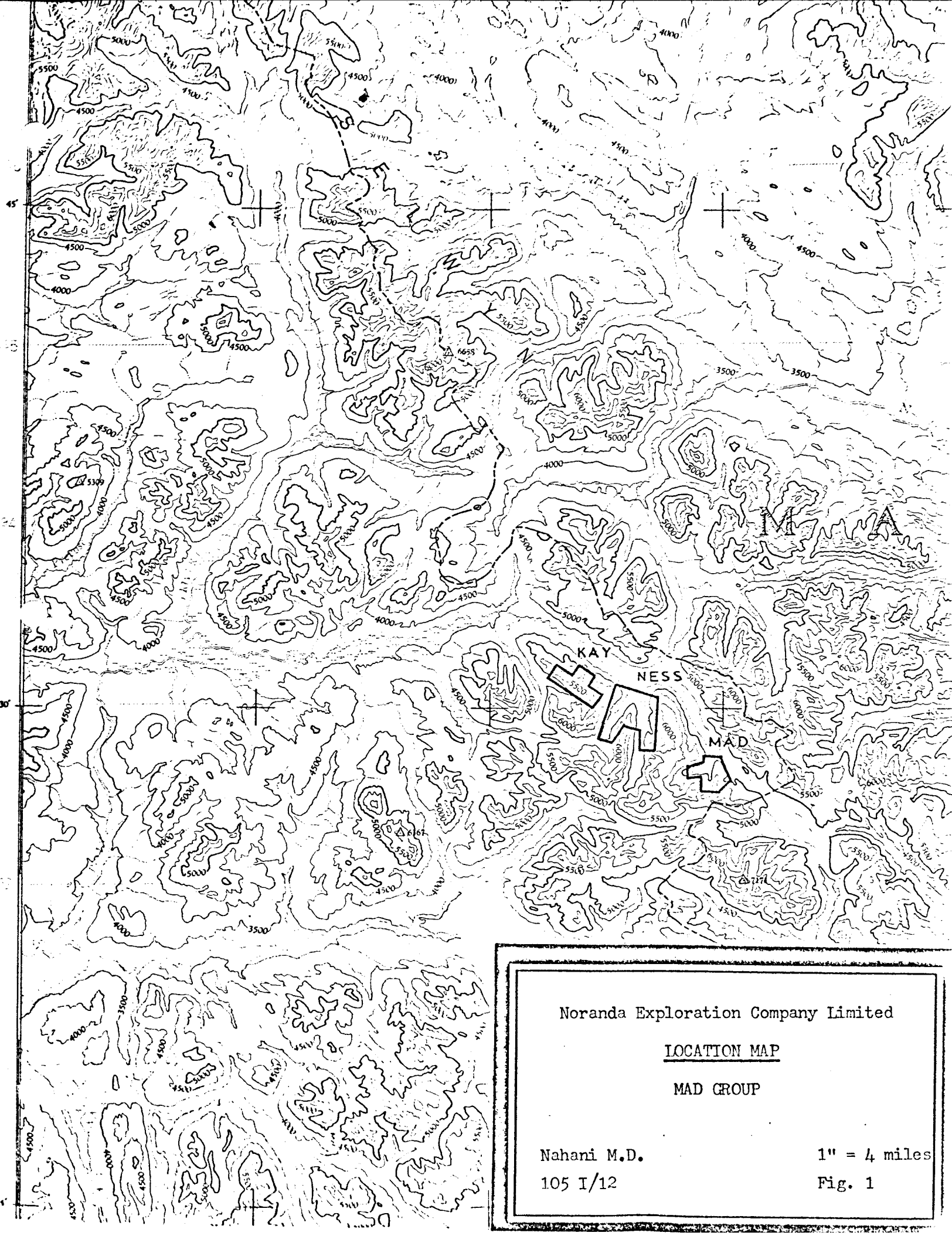
Noranda Exploration Company Limited

INTRODUCTION

The claims referred to in this report are registered in the name of Noranda Exploration Company Limited (No Personal Liability). The claim group consists of two adjacent claim blocks that includes 22 mineral claims.

<u>Claim Name</u>	<u>Grant Number</u>
Mad 1	Y70685
Mad 2	Y70686
Mad 3	Y70687
Mad 4	Y70688
Mad 5	Y70689
Mad 6	Y70690
Mad 7	Y70691
Mad 8	Y70692
Mad 9	Y70693
Mad 10	Y70694
Mad 11	Y70695
Mad 12	Y70696
Mad 13	Y70697
Mad 14	Y70698
Mad 17	Y70699
Mad 18	Y70700
Mad 19	Y70701
Mad 20	Y70702
Mad 21	Y70703
Mad 22	Y70704
Mad 23	Y70705
Mad 24	Y70706

The Mad claim group is located approximately 177 miles north of Watson Lake, Yukon Territory, on a tributary of the Pelly River. Access to the property is by means of helicopter or fixed wing from Watson Lake. The claim group lies on north trending valleys and ridges. Elevation ranges from 4900 to 5500 feet a.s.l.



Noranda Exploration Company Limited

LOCATION MAP

MAD GROUP

Nahani M.D.

105 I/12

1" = 4 miles

Fig. 1

Geological and geochemical surveys were carried out by Noranda Exploration Company Limited during the periods July 18 to July 27, 1973 and August 10 to 11, 1973. The work was performed under the direction of G.E. Dirom, P. Eng. with field supervision by P.M. McAndless (geological). Geochemical field and laboratory procedure was co-ordinated by J.D. Knauer.

The geological survey was plotted on a 1 inch to 1000 feet airphoto controlled topographic base map. The geochemical surveys were plotted on the same base map as well as on a 1 inch to 400 feet blow up map. Claim boundaries are included on all base maps.

### GEOLOGY

The geological survey was recorded on a 1 inch to 1000 foot, airphoto controlled, topographic base map. Geological investigation was restricted mainly to ridge tops where rock was best exposed.

### Stratigraphy

The Mad claim group is underlain by a sequence of sedimentary rocks ranging in age from Cambrian to Devonian (G.S.C., Map 8-1967, Nahani). Three possible separate rock divisions were recognized and include wavy banded limestone (Broken Skull Formation (?)), Road River Formation and Black Clastics (Nahani Formation (?)).

Table of Formations

Era	Period	Formation and thickness (feet)	Lithology
Paleozoic	Devonian and Mississippian (?)	Black Clastic Unit > 3000 (Nahani (?))	Interbedded, silty, sandy, and pebble shale, chert sandstone and pebble conglomerate.
	Ordovivian and Silurian	Road River 700	Ferro-dolomitic, graphitic and graptolitic shale, bedded chert.
		Unconformity (?)	
	Cambrian	Wavy Banded Unit 500 (Broken Skull (?))	Wavy banded limestone.

The wavy banded limestone unit is a thin sequence of buff and grey weathering, thin alternating undulated beds of limestone and sandy dolomite. Boudinaged dolomite bands are commonly featured. A 500 foot section is exposed on a ridge bluff in the north eastern section of the claim group. The apparent age of the unit is Upper Cambrian (G.S.C., Map 8-1967, Nahani).

The Road River Formation apparently unconformably overlies the wavy banded limestone unit. The Road River comprises a recessive, thin succession of thin-bedded, ferro-dolomitic, graphitic and graptolitic shales and black bedded chert.

The ferro-dolomitic shale appears to be at the base of the sequence. The buff-grey weathering dolomitic shale is commonly platy and contains dark thin bands and streaks of graphitic shale and disseminated fine grained pyrite. Graphitic and graptolitic shales follow in the sequence and are typically fissile, platy, black, laminated, and 'sooty'. Graphitic impressions of graptolites are frequently imprinted on bedding surfaces. The top of the Road River sequence is a black, vaguely bedded chert. Graphite commonly occurs on cleavage surface as well as limonite. The Road River Formation occurs as part of an overturned anticline on both sides of the wavy banded limestone unit. The southwest limb section measures approximately 700 feet. The Road River is apparently Ordovician - Silurian age (G.S.C., Map 8-1967, Nahani).

The Black Clastic Unit overlies the Road River Formation. This sequence of sedimentary rocks comprises resistant, thick-bedded grey weathering, repetitive interbeds of silty, sandy and pebble shale as well as chert sandstone and chert-pebble.

Dark grey, laminated, fissile to platy, silty shale (73P21.7.2) possibly represents the basal beds of the thick clastic sequence. These well cleaved, iron-stained, somewhat recessive rocks graded into coarser fraction interbeds of sandy (73P21.7.1) and pebble shale (73P23.7.5). These fine to coarse-grained, green-grey weathering rocks are relatively resistant and well defined beds that range up to 300 feet thick. Very resistant, light grey weathering, medium to very coarse grained chert sandstone (73P23.7.1) and chert-pebble conglomerate (73P21.7.6) appear to overlie the interbedded silty, sandy and pebble shale section of the clastic sequence. These rocks form resistant bluffs and ridges at the extreme south western section of the claim group and adjoining southern claims. The Black Clastic unit occupies over half of the claim group with a total thickness of greater than 3000 feet. This unit is probably comparable to the Nahani Formation of Devonian and Mississippian(?).

### Structure

A northwesterly trending, overturned narrow, open anticline with moderate dipping limbs is the dominant structural feature on the Mad claim group. Local drag folding is evident particularly in the Black Clastic section.

A core of wavy banded limestone is flanked by Road River Formation and Black Clastics respectively. The average dip of the beds is between 45 to 55 degrees to the southwest.

Local graphite shear zones are noteworthy along the black chert/silty shale contact. The faults generally strike parallel to contacts.

Lack of outcrop and recessive shale beds prevented a more precise, complete picture of the anticlinal structure.

### Mineralization

No visible lead or zinc mineralization was encountered. Minor copper minerals, including malachite, azurite, and tetrahedrite were found in one location near the junction of the two main tributaries. Copper was traced for approximately 100 feet in a narrow graphite shear zone with calcite gash filling as the main association.

### GRID PREPARATION

A northwest trending chain and compass grid was established for a geochemical soil survey. Grid lines of varying lengths were fixed at 400 foot intervals along a 2800 foot base line. The lines were extended north and/or south of the base line. All lines were flagged and marked at 200 foot stations. A total of 2.61 miles of grid was prepared.

### GEOCHEMICAL STREAM SEDIMENT SURVEY

All stream sediments were analyzed for copper, lead, zinc, and molybdenum in the Noranda Exploration Company Limited laboratory, located at 1050 Davie Street, Vancouver 5, B.C. The analyst was Evert VanLeeuwen.

### Sampling Method

Samples were obtained by collecting the finest transported material available - preferably silt, from the centre portion of the creek, away from the creek banks. The samples were placed in "Hi Wet Strength 3½" x 6 1/8" Open End" envelopes and the sample number and collectors initials marked on the envelopes with indelible felt pen. Stream sediments were taken wherever possible on all the main drainages and their tributaries. The sample interval varied but was approximately one sample every 500 feet, if possible.

### Laboratory Determination Method

The samples were first placed in a drying cabinet for a period of 24 to 48 hours. The sample material is then screened and sifted to obtain a -80 mesh fraction.

The determination procedure for soluble copper, lead, and zinc is as follows:

0.200 grams of the -80 mesh material is digested with 5 ml. of 0.5 NHCl to a boil for 25 minutes. The sample is brought back to 5 ml. with 0.5 NHCl after cooling. A Varian Techtron Model AA-5 Atomic Absorption Spectrophotometer was used to determine the parts per million copper, zinc and lead content in each sample.

The determination procedure for total molybdenum is as follows:

0.200 grams of the -80 mesh material is digested in 2 ml. of HClO<sub>4</sub> and 0.5 ml. of HNO<sub>3</sub> for approximately four hours. Following digestion, each sample is diluted to 5 ml. with demineralized H<sub>2</sub>O. A Varian Techtron Model AA-5 Atomic Absorption Spectrophotometer was used to determine the parts per million lead and molybdenum content in each sample.

The theory of Atomic Absorption Spectrophotometer is fully described in the literature and will not be described in this report.

### Presentation of Results

Results of the stream sediment survey are presented in Drawing No's. 4 and 5 of this report; plan map (scale 1 inch = 1000 feet) showing copper/molybdenum and lead/zinc in parts per million.

### Discussion of Results

Stream sediments were taken in the area of the Mad Group of mineral claims and analyzed for copper, molybdenum, lead, and zinc. The major streams cross three geologic rock units within the area. Results from the sampling indicate a variation in the background content of the elements within the different geologic units. Three areas where samples were found to contain either moderate to high copper, lead or zinc were checked. The high lead values were found to be in a stream which drains known lead mineralization. The two higher zinc values were on tributaries draining the Road River Formation and no mineralization was observed. The moderate to high copper values on one of the main drainages come primarily from the black clastic unit. No apparent mineralization was observed.

### GEOCHEMICAL SOIL SURVEY

All soils were analyzed for copper, lead, zinc, cadmium, and molybdenum in the Noranda Exploration Company Limited laboratory, located at 1050 Davie Street, Vancouver 5, B.C. Analyst was Evert VanLeeuwen.

### Sampling Method

Samples were obtained by dipping holes with a shovel, to a depth if feasible, where the visible C horizon or sub-outcrop was encountered. The C horizon was sampled whenever possible. The samples were placed in "Hi Wet Strength Kraft 3½" x 6 1/8" Open End" envelopes and the grid station was marked on the envelopes with indelible felt pen. Soil samples were taken at 200 foot intervals along the grid lines.

### Laboratory Determination Method

The samples are first placed in a drying cabinet for a period of 24 to 48 hours. The sample material is then screened and sifted to obtain a -80 mesh fraction.

The determination procedure for total copper, lead, zinc, cadmium and molybdenum is as follows:

0.200 grams of the -80 mesh material is digested in 2 ml. of  $\text{HClO}_4$  and 0.5 ml. of  $\text{HNO}_3$  for approximately four hours. Following digestion, each sample is diluted to 5 ml. with demineralized  $\text{H}_2\text{O}$ . A Varian Techtron Model AA-5 Atomic Absorption Spectrophotometer was used to determine the parts per million copper, lead, zinc, and molybdenum content in each sample.

The Theory of Atomic Absorption Spectrophotometer is fully described in the literature and will not be described in this report.

### Presentation of Results

Results of the soil survey are presented in Drawing No's. 6, 7, and 8 of this report; plan maps (scale 1 inch = 400 feet) showing copper-molybdenum, lead/zinc, and cadmium in parts per million. Higher than background values for each element are indicated on the three drawings.

### Discussion of Results

1. The anomalous soil values as indicated on the drawings for the different elements can be associated with the Road River Formation.
2. In most instances there is a definite zinc-cadmium correlation among the anomalous results.
3. The highest zinc, cadmium and molybdenum results were located at 28 N on the O B.L.
4. The highest lead and copper results were found at sample location 8 N - 8 N E.
5. The above locations as well as the other areas of anomalous values on the remainder of the grid were checked with no apparent mineralization encountered.

### CONCLUSIONS AND RECOMMENDATIONS

No visible lead or zinc mineralization was encountered. Minor copper mineralization including azurite, malachite, and tetrahedrite occur in a narrow graphite shear zone near the junction of the two main tributaries.

Lead and zinc geochemical soil anomalies are correlatable to the Road River Formation.

An extension of the soil grid to the northeast is recommended to test the extent of concealed Road River.

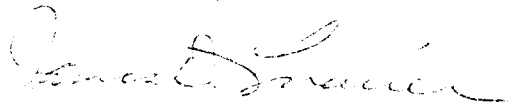
Respectfully submitted,



G.E. Dirom, P. Eng.



P.M. McAndless,  
Geologist



J. D. Khauer,  
Geochemist.

APPENDIX I

Statement of Qualifications

Statement of Qualifications

I, Patrick M. McAndless of the City of White Rock, Province of British Columbia, do certify that:

1. I have been an employee of Noranda Exploration Company, Limited, since May 1973.
2. I am a graduate of the University of British Columbia with a Bachelor of Science Degree in Geology.
3. I am a member of the Geological Association of Canada.
4. I have held the position of geologist for Noranda Exploration Company, Limited since May 1973..

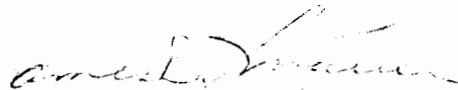
Patrick M. McAndless  
Geologist  
Noranda Exploration Company, Limited  
(No Personal Liability)

Statement of Qualifications

I, James D. Knauer of the City of Vancouver, Province of British Columbia, do certify that :

1. I have been an employee of Noranda Exploration Company, Limited since August, 1964.
2. I am a graduate of the University of New Mexico with a Bachelor of Science Degree in Geology.
3. I am a member of the Geochemical Society, Canadian Institute of Mining and Metallurgy and Association of Exploration Geochemists.
4. I have held the position of Geochemist for Noranda Exploration Company, Limited, British Columbia, since June, 1965.

Dated at Vancouver  
this 5th day of  
December, 1973



James D. Knauer,  
Geochemist,  
Noranda Exploration Company, Limited,  
(No Personal Liability)

CERTIFICATE

I, GAVIN EWAN DIROM, of the City of Vancouver, Province of British Columbia, do certify that:

1. I am a Geological Engineer residing at 1011 Arlington Crescent, North Vancouver, B.C.
2. I am a graduate of the University of British Columbia with a B.A.Sc Degree (1962) in Geological Engineering and a M.A.Sc Degree (1965) in Geophysics.
3. I am a Member of the Canadian Institute of Mining and Metallurgy.
4. I am a registered Professional Engineer in the Province of British Columbia and Ontario.
5. I have been employed as a geologist for Noranda Exploration Company, Limited since June 1962 and have held the position of District Geologist since March 1967.

Dated at Vancouver, this 5th day of December, 1973.



GAVIN E. DIROM, M.A.Sc., P. Eng.

NORANDA EXPLORATION COMPANY, LIMITED

Personnel Engaged In Survey

P. McAndless	1447 Blackburn Crescent	White Rock, B.C.
K. Bond	2212 Uxbridge Drive	Calgary, Alberta
R. Wilson	P. O. Box 670	Smithers, B.C.
G. Gibson	1110 Lawson Avenue	Kelowna, B.C.
L. Soet	4135 East Pender Street	Burnaby, B.C.

APPENDIX II

Statutory Declaration  
Application for a Certificate of Work  
Application to Group Mineral Claims

DOMINION OF CANADA:  
PROVINCE OF BRITISH COLUMBIA.

To Wit:

**In the Matter of** a statement of exploration costs on 18 mineral claims in the Watson Lake Mining District having grant numbers Y70694 and Y70699 to Y70706.

I, Patrick M. McAndless, Agent for Noranda Exploration Company, Limited (No Personal Liability)

both of 1050 Davie Street, Vancouver, B.C. V6E 1M4

in the Province of British Columbia, do solemnly declare that the cost of a Combined Geological-Geochemical Survey on the above noted claim was:

1. Labour Cost:	Employee	Rate/ Day	Geological Days	Geochemical Days	Total Days	Cost
	P. McAndless	\$33.83	10	—	10	\$338.30
	K. Bond	\$25.37	7	1	8	\$202.96
	R. Wilson	\$16.92	5	2	7	\$118.44
	G. Gibson	\$20.09	2	5	7	\$140.63
	L. Soet	\$17.97	4	4	8	<u>\$143.76</u>
						\$ 944.09
2. Topographic Map						\$ 261.57
3. Accommodation costs						\$ 286.73
4. Camp costs						\$ 504.33
5. Transportation costs						\$4092.58
6. Consulting, G.E. Dirom, P. Eng., 2 days @ \$100.00						\$ 200.00
7. Assay costs:						
	136 Zn determination @ \$1.00			\$136.00		
	136 Pb determination @ \$ .25			\$ 34.00		
	136 Cu determination @ \$ .25			\$ 34.00		
	136 Mo determination @ \$ .25			\$ 34.00		
	57 Cd determination @ \$ .25			<u>\$ 14.25</u>		
						\$ 252.25
Total cost of Survey						<u>\$6541.55</u>

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 5th  
day of December 1973, A.D.

*P. M. McAndless*

*[Signature]*

A Commissioner for taking Affidavits within British Columbia or  
A Notary Public in and for the Province of British Columbia.



Department of Indian Affairs and Northern Development

YUKON QUARTZ MINING ACT

FOR "C" - APPLICATION FOR A CERTIFICATE OF WORK

(This form required in duplicate with sketch showing location of work.)

I (Name) P. M. McAndless	Occupation Geologist
(Postal Address) 1050 Davie Street, Vancouver, B.C. V6E 1M4	

OFFICE DATE STAMP

MAKE OATH AND SAY, THAT :-

1. I am the owner, or agent of the owner, of the mineral claim(s) to which reference is made herein.

2. I have done, or caused to be done, work on the following mineral claim(s):  
(Here list claims on which work was actually done by number and name)

Mad 17 - 24

situated at N. of Summit Lake Claim Sheet No. 105 I/5-6

in the Watson Lake Mining District, to the value of at least \$800.00

dollars, since the 28th day of November 19 72

to represent the following mineral claims under the authority of Grouping Certificate No. \_\_\_\_\_  
(Here list claims to be renewed by number and name in numerical order)

Claim	Grant No.	Assessment Period
Mad 17	Y70699	1 year
Mad 18	Y70700	1 year
Mad 19	Y70701	1 year
Mad 20	Y70702	1 year
Mad 21	Y70703	1 year
Mad 22	Y70704	1 year
Mad 23	Y70705	1 year
Mad 24	Y70706	1 year

3. The following is a detailed statement of such work: (Set out full particulars of the work done in the twelve months in which such work is required to be done, as shown by Section 53.)

A Combined Geological - Geochemical Survey as per accompanying Report and Statutory Declaration of Costs.

Sworn before me at Vancouver, B.C.  
this 5th day of December 19 73

Douglas Bell  
A Commissioner for Oaths for Yukon Territory  
British Columbia

P. M. McAndless  
Applicant.



Department of Indian Affairs and Northern Development

YUKON QUARTZ MINING ACT

FOR "C" - APPLICATION FOR A CERTIFICATE OF WORK

(This form required in duplicate with sketch showing location of work.)

I (Name) P. M. McAndless Occupation Geologist

(Postal Address) 1050 Davie Street, Vancouver, B.C. V6E 1M4

OFFICE DATE STAMP

MAKE OATH AND SAY, THAT :-

1. I am the owner, or agent of the owner, of the mineral claim(s) to which reference is made herein.

2. I have done, or caused to be done, work on the following mineral claim(s): (Here list claims on which work was actually done by number and name)

Mad 1 - 10

situated at N. of Summit Lake Claim Sheet No. 105 I/5 - 6

in the Watson Lake Mining District, to the value of at least \$1000.00

dollars, since the 28th day of November 19 72

to represent the following mineral claims under the authority of Grouping Certificate No. (Here list claims to be renewed by number and name in numerical order)

Claim	Grant No.	Assessment Period
Mad 1	Y70685	1 year
Mad 2	Y70686	1 year
Mad 3	Y70687	1 year
Mad 4	Y70688	1 year
Mad 5	Y70689	1 year
Mad 6	Y70690	1 year
Mad 7	Y70691	1 year
Mad 8	Y70692	1 year
Mad 9	Y70693	1 year
Mad 10	Y70694	1 year

3. The following is a detailed statement of such work: (Set out full particulars of the work done in the twelve months in which such work is required to be done, as shown by Section 53.) A Combined Geological - Geochemical Survey as per accompanying Report and Statutory Declaration of Costs.

sworn before me at Vancouver, B.C.

5th day of December 19 73

Bruce Bell Commissioner for Oaths for Yukon Territory, British Columbia

P. M. McAndless Applicant.



DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT

Yukon Quartz Mining Act

APPLICATION TO GROUP MINERAL CLAIMS

MINING DISTRICT Watson Lake

CLAIM SHEET NO. 105 I/5-6

(WE) THE UNDERSIGNED OWNER(S) OR AGENT(S) OF THE OWNER(S) OF THE FOLLOWING MINERAL CLAIMS

OFFICE DATE STAMP

Mad 1 - 10

Grant No's. Y70685 - Y70694

GIVE NOTICE OF INTENTION TO GROUP THE SAID CLAIMS FOR THE PERFORMANCE OF WORK AND DO HEREBY APPLY UNDER THE PROVISIONS OF SECTION 52 OF THE YUKON QUARTZ MINING ACT FOR A CERTIFICATE IN FORM "E"

(WE) HEREBY CERTIFY THAT THE ABOVE CLAIMS ARE ADJOINING

DATED AT Vancouver, B.C.

THIS 5th DAY OF December 19 73

*P. M. McAndless*

P. M. McAndless, Agent for

Noranda Exploration Company, Limited

(No Personal Liability)

FOR OFFICE USE ONLY.	
FORM "E" NO.	_____
RECEIPT NO.	_____
DATE APPLIED:	_____



DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT

Yukon Quartz Mining Act

APPLICATION TO GROUP MINERAL CLAIMS

MINING DISTRICT Watson Lake CLAIM SHEET NO. 105 I/5-6

(WE) THE UNDERSIGNED OWNER(S) OR AGENT(S) OF THE OWNER(S) OF THE FOLLOWING MINERAL CLAIMS

OFFICE DATE STAMP

Mad 17 -.24

Grant No's. Y70699 - Y70706

GIVE NOTICE OF INTENTION TO GROUP THE SAID CLAIMS FOR THE PERFORMANCE OF WORK AND DO HEREBY APPLY UNDER THE PROVISIONS OF SECTION 52 OF THE YUKON QUARTZ MINING ACT FOR A CERTIFICATE IN FORM "E"

(WE) HEREBY CERTIFY THAT THE ABOVE CLAIMS ARE ADJOINING

DATED AT Vancouver, B.C.

THIS 5th DAY OF December 19 73

*P. M. McAndless*

P. M. McAndless, Agent for

Noranda Exploration Company, Limited

(No Personal Liability)

FOR OFFICE USE ONLY.

FORM "E" NO. \_\_\_\_\_

RECEIPT NO. \_\_\_\_\_

DATE APPLIED: \_\_\_\_\_

APPENDIX III

Expenditures Incurred in Performing the Work  
Including All Statements and Vouchers

NORANDA EXPLORATION COMPANY, LIMITED  
(NO PERSONAL LIABILITY)

PELLY RIVER PROJECT - (902)

STATEMENT OF COSTS

MAD Claims	40 man days
NESS Claims	30 " "
KAY Claims	22 " "
Other Work	<u>28 " "</u>
	<u>120 " "</u>

1. Topographic Map by Lockwood Survey Corporation Limited, Vancouver, B.C.

Cost of Map		<u>\$ 784.70</u> ✓
Pro rated to MAD Claims		261.57
" " to NESS Claims		261.57
" " to KAY Claims		<u>261.57</u>
		<u>\$ 784.70</u>

2. Accommodation : Cedar Lodge Motel

		<u>\$ 860.28</u> ✓
Pro rated to MAD Claims	(40/120)	286.76
" " to NESS Claims	(30/120)	215.07
" " to KAY Claims	(22/120)	157.72
" " to Other Work	(28/120)	<u>200.73</u>
		<u>\$ 860.28</u>

3. Camp Costs :

L.C. Sands Ltd.,	\$ 11.85 ✓	
Northern Metallic Sales (Yukon) Ltd.	38.45 ✓	
Thompson's Yukon Foods Ltd.,	1,372.49 ✓	
Miscellaneous expense account items	<u>90.21</u>	<u>\$ 1,513.00</u>
Pro rated to MAD Claims	(40/120)	504.33
" " to NESS Claims	(30/120)	378.25
" " to KAY Claims	(22/120)	277.38
" " to Other Work	(28/120)	<u>353.04</u>
		<u>\$ 1,513.00</u>

4. Transportation :

Alpine Helicopters Ltd.,	\$ 192.00 ✓	
Avis	128.87 ✓	
B.C. Yukon Air Service	3,834.91 ✓	
Frontier Helicopters Ltd.,	7,293.70 ✓	
Watson Lake Aviation Gas Sales	821.25 ✓	
Miscellaneous expense account items	<u>7.00</u>	<u>\$ 12,277.73</u>
Pro rated to MAD Claims	(40/120)	4,092.58
" " to NESS Claims	(30/120)	3,069.43
" " to KAY Claims	(22/120)	2,250.92
" " to Other Work	(28/120)	<u>2,864.80</u>
		<u>\$ 12,277.73</u>



*P. Mitchell 7/12/73*

REVISED	<b>PELLY RIVER</b>	
	MAD, NESS & KAY CLAIMS	
PROJECT:		
PROJ. No 902	SURVEYED BY:	DATE: 28 NOVEMBER 1973
N.T.S. 1031/72	DRAWN BY:	SCALE: 1" = 1000'
DWG. No 2	<b>NORANDA EXPLORATION CO. LTD.</b>	
	OFFICE:	

CROSS SECTION



LEGEND

- Rhyolite dyke or sill
- DEVONIAN**
  - Black Clastics
  - pebble conglomerate, chert sandstone
  - interbedded silty, sandy & pebble shale
- ORDOVICIAN**
  - Road River
  - black chert,
  - graptolitic-graphitic shale
  - ferro-dolomitic shale
- CAMBRIAN**
  - Wavy Banded Limestone

- Geological boundary, Formation (defined, assumed)
- Geological boundary, Rock type ( . . . )
- Bedding
- Outcrop
- Mineral Occurrence
- Anticline (defined, overturned)
- Syncline (defined, overturned)

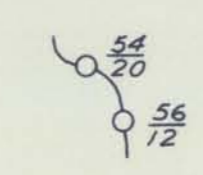
P. McArdless 7/12/73

REVISED	<b>PELLY RIVER</b>	
	MAD, NESS, KAY CLAIM GROUPS	
	GEOLOGY	
PROJECT:		
PROJ. No 902	SURVEYED BY: P. McArdless	DATE: 3 <sup>rd</sup> DEC. 73
N.T.S. 103/12W	DRAWN BY: D. Phillips	SCALE: 1" = 1000'
DWG. No 3	NORANDA EXPLORATION CO. LTD.	
	OFFICE:	



*P.M. McMillan 7/12/73*

REVISED	<b>PELLY RIVER</b>	
	MAD, NESS & KAY CLAIMS	
	MAD GROUP - Cu and Mo in ppm	
	PROJECT - GEOCHEMICAL STREAM SEDIMENT SURVEY	
PROJ. No 902	SURVEYED BY	DATE 28 NOVEMBER 1973
NTS 105/12	DRAWN BY	SCALE 1" = 1000'
DWG No	<b>NORANDA EXPLORATION CO. LTD.</b>	
<b>4</b>	OFFICE	

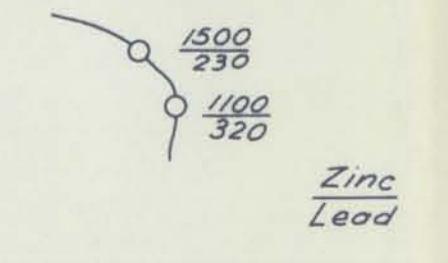


Copper  
Molybdenum

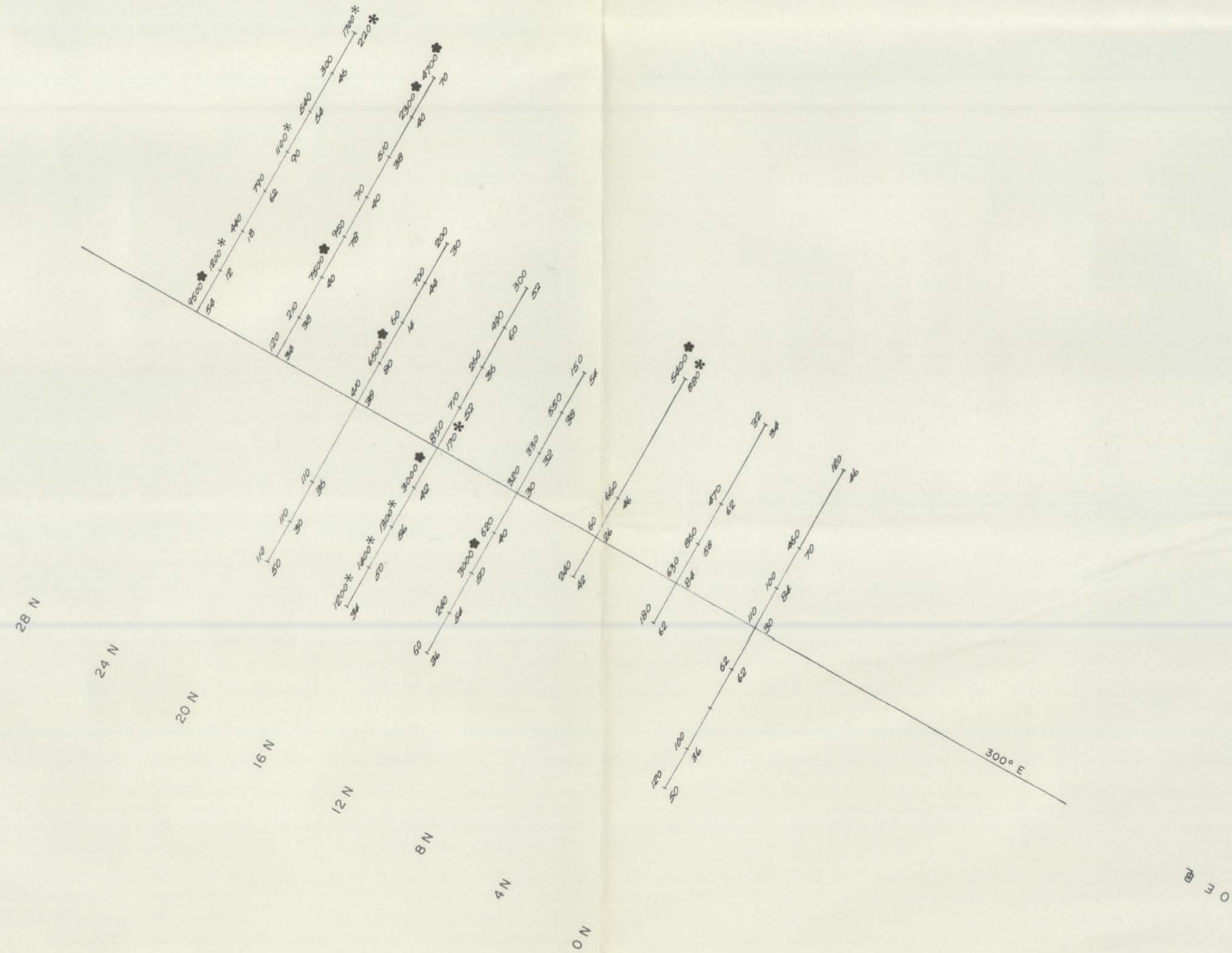
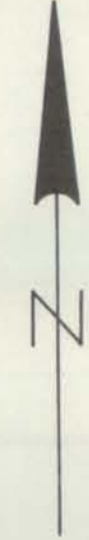


*fmm/Andres 7/12/73*

REVISED	<b>PELLY RIVER</b>	
	MAD, NESS & KAY CLAIMS	
	MAD GROUP - Zn and Pb in ppm.	
PROJECT: GEOCHEMICAL STREAM SEDIMENT SURVEY		
PROJ. NO. 902	SURVEYED BY:	DATE: 28 NOVEMBER 1973
N.T.S. 103/72	DRAWN BY:	SCALE: 1" = 1000'
DWG. NO. 5	NORANDA EXPLORATION CO. LTD.	
	OFFICE:	



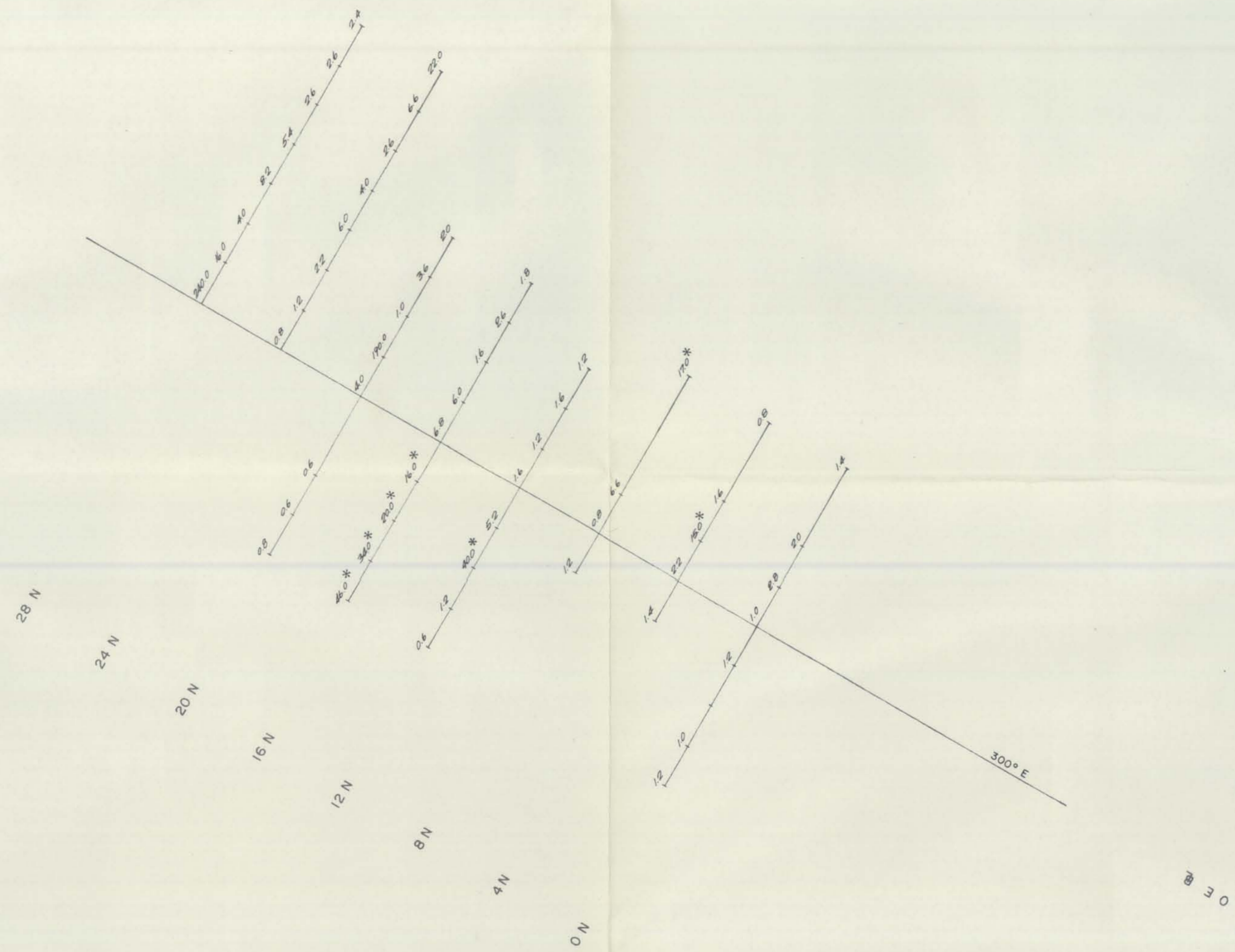
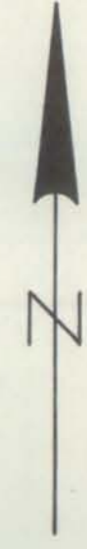




- \* > 1100 ppm Zn
- \* > 2300 ppm Zn
- \* > 170 ppm Pb

*P. M. Anderson 7/12/73*  
*C. R. Jones*

REVISED	PELLEY RIVER	
	MAD CLAIMS SOIL SURVEY	
	Ppm Total Zn Ppm Total Pb	
PROJ. No. 902	SURVEY BY: .....	DATE: AUGUST, 1973
N.T.S. 1051/6	DRAWN BY: .....	SCALE: 1" = 400'
DWG. No. 7	NORANDA EXPLORATION	
	OFFICE: VANCOUVER	



\*  $\geq 15\text{ppm}$

*D.M. Anderson 7/2/73*

REVISED	PELLEY RIVER	
	MAD CLAIMS	
	SOIL SURVEY	
	Ppm Total Cd	
PROJ. No. 902	SURVEY BY:	DATE: AUGUST, 1973
N.T.S. 105 1/6	DRAWN BY:	SCALE: 1" = 400'
DWG. No. 8	NORANDA EXPLORATION	
	OFFICE: VANCOUVER	