



DIAMOND DRILLING ASSESSMENT REPORT

YUKON QUARTZ MINING ACT

LADY DI 45 CLAIM (YA 62099)

N.T.S. 105K/13

62° 51' N 133° 40' W

20 JANUARY 83

NORANDA EXPLORATION COMPANY, LIMITED (NPL)

WHITEHORSE, YUKON TERRITORY

FOR

WELCOME NORTH MINES, LIMITED

VANCOUVER, B.C.

R.S. Rogers M.Sc. P.Geol.

091420

FROM: Mining Recorder at Whitehorse

TO: Supervising Mining Recorder at Whitehorse, Y.T.



FOR ACTION ARE:

NEW APPL'N for PLACER LEASE to PROSPECT: Name:

RENEWAL APPL'N PLACER LEASE to PROSPECT: Name:

Lease No.

AFFIDAVIT of EXPENDITURE on PLACER LEASE. Name:

Lease No.

ASSIGNMENT of PLACER LEASE No.

From: To:

GROUPING APPL'N UNDER SEC. 52(2) PLACER MINING ACT.

Owner:

DIAMOND DRILL LOGS: Memoranda Expl.

Claims: LADY D.I

Claim sheet no: 105-K-13

QUARTZ ASSESSMENT REPORT:

Claims:

Claim sheet no.

Type of report:

Submitted by:

Cls. work performed on:

\$ Req. for ren. application

H. Sawhuck
Signature

REPLY ACTION:

Date Ret.

091420

Signature

SUMMARY AND RECOMMENDATIONS

The Lady Di 1 - 60 claims (YA 62055 - YA 62114) were explored in the summer of 1982 by Noranda Exploration Company, Limited (No Personal Liability) under letter of intent preliminary to option agreement from Welcome North Mines, Limited of Vancouver, B.C. Assessment work performed in the period September 1 to December 31 of 1982 comprised diamond drilling 614.0 feet of BQ series core in three holes located within the Lady Di 45 claim (YA 62099) contracted by B.B.S. Diamond Drilling, Limited of Whitehorse, Yukon Territory. Drilling was supervised by R.S. Rogers, M.Sc. P.Geol. of Noranda Exploration Company, Limited (No Personal Liability) of Whitehorse, Yukon Territory.

Results of the 1982 diamond drilling program were inconclusive as to the extent of lead zinc mineralization developed on the property. Mineralization was encountered over a 3.0 foot section of DDH 3.

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INTRODUCTION

The Lady Di Option comprises a group of 60 claims held in the name of Welcome North Mines, Limited, 1027 - 470 Granville Street, Vancouver, B.C.; explored in the 1982 field season by Noranda Exploration Company, Limited (No Personal Liability) under terms of a letter of intent preliminary to option agreement with Welcome North.

The letter of intent with respect to the Lady Di Option was agreed to by the principal parties on 22 September 82 and is briefly summarized here. The agreement was made to include both the Lady Di 1 - 60 claims and the Chuck 1 - 6 claims, offering Noranda the opportunity to earn a sixty per cent interest in the properties upon completion of \$1,000,000 of exploration and development work and payment to Welcome North option payments under the following schedule:

\$ 20,000 initial payment
\$ 30,000 due 1 January 83
\$ 100,000 due 1 January 84
\$ 100,000 due 1 January 85
\$ 100,000 due 1 January 86

Welcome North retained the right to enter into a joint venture partnership with Noranda Exploration on the completion of these terms, under which the majority interest holder would be the operator; or to grant Noranda a 100% interest in the properties paying a 15% Net Profits Royalty to Welcome North. Noranda Exploration was responsible for maintaining the properties in good standing, filing all assessment work performed and holding a minimum of one year paid up assessment on the claims.

The initial option payment of \$ 20,000 was paid by Noranda Exploration to Welcome North Mines, Limited on 22 September 82.

CLAIMS

The claims referred to in this report are held in the name of Welcome North Mines, Limited of Vancouver, B.C. and explored under letter of intent by Noranda Exploration Company, Limited (No Personal Liability). The Lady Di 1 - 60 Claims were staked on 12 August 81 by John Withem et al; the table below summarizes claims data.

TABLE I : Claims

<u>Name</u>	<u>Grant Number</u>	<u>Due Date</u>
Lady Di 1 - 60	YA 62055 - YA 62114	12 August 87

LOCATION, HISTORY AND ACCESS

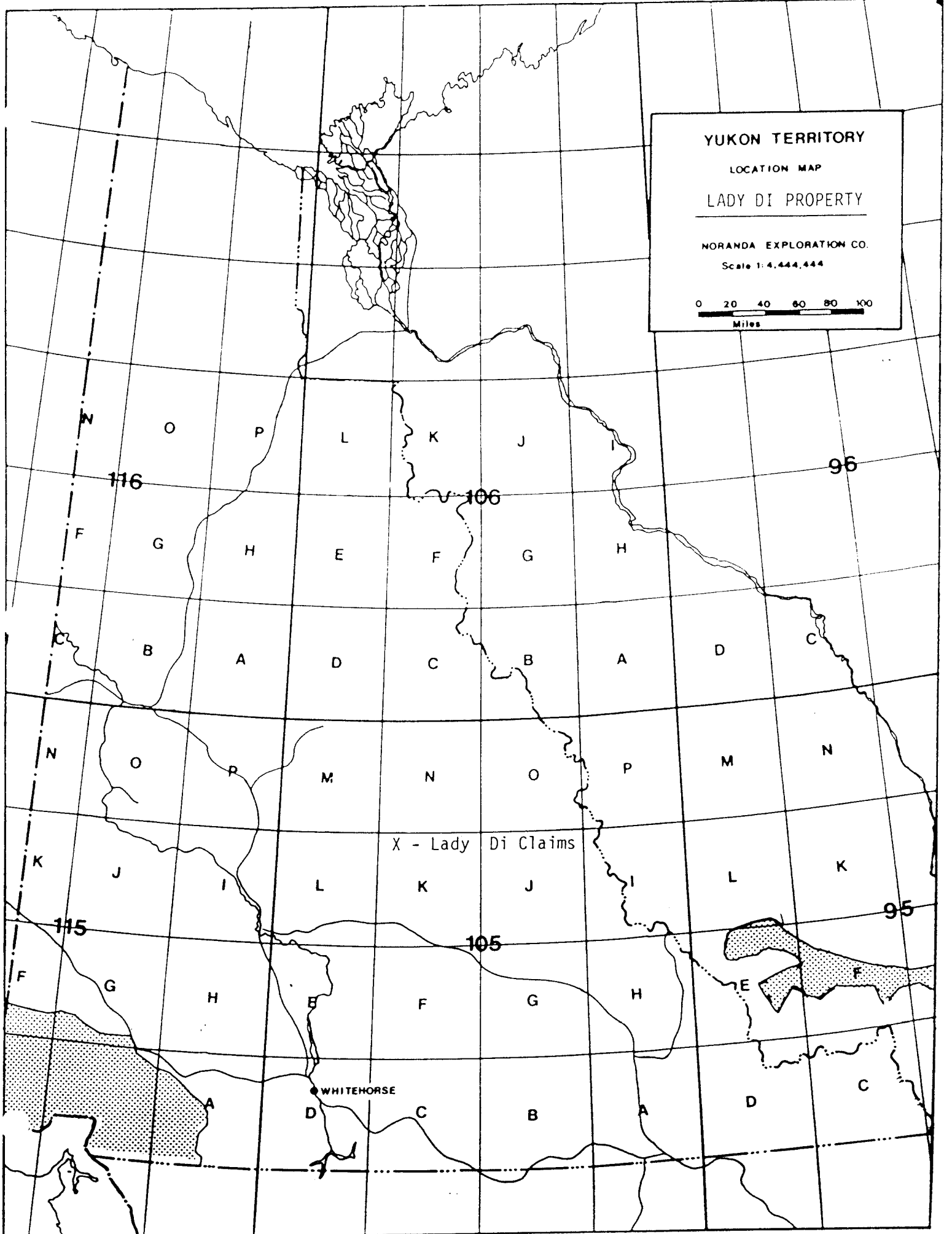
The Lady Di 1 - 60 claims are located in the Earn Hills of central Yukon Territory at 62° 51' N latitude and 133° 40' W longitude on N.T.S. map sheet 105K/13 (Figure 1). The property lies 4 km. south of Stokes Lake and 70 km. north-northwest of Faro. The Earn Hills south of Stokes Lake rise to over 1400 m. elevation in rounded, glaciated mountains; blocky felsenmeer caps most ridges above treeline, outcrops below treeline are primarily confined to cliff faces on north facing slopes and abrupt stream cuts. Black spruce, white spruce, aspen and balsam poplar dominate local hillsides, with the usual assortment of scrub brush and alpine plants found above treeline. For the most part, the property is treed; fires in 1981 and early 1982 burned off the northern fringe of the claim group.

The Lady Di showing was discovered in 1981 by the Welcome - Esperanza "Basin 81" Project and the Lady Di 1 - 60 claims were established over the showing by Ketz Enterprises of Ross River. A flag-line grid was constructed at that time with lines of 400m and 200m spacings with 50 m stations. Three hundred and ninety-six soil samples were collected from the "B" horizon and a brief magnetometer survey was conducted. In early September of 1981, W.J. Crawford of Welcome North and prospectors George Johnny and Robert Etzel returned to the property, trenched the main showing by hand and followed up soil anomalies with prospecting and mapping.

Noranda Exploration examined the property in the early summer of 1982, and on the basis of that work decided to mobilize a BBS -I

diamond drill to the property, completing three holes for a total of 614 feet.

Access to the property is restricted to helicopter service based out of Ross River and float plane charter to Stokes or Earn Lake based out of Mayo, Ross River and Whitehorse. In the 1982 program, Noranda crews were able to second a Hughes 500-D helicopter from Aniaconda's Earn Lake base camp to facilitate drill moves and service trips. A base camp was set up on the edge of the cliff at the main showing (known to Welcome North as showing number 50) using water pumped up from the creek some 600 feet below. A helicopter pad was cleared out immediately above the main showing and is of suitable size for turbine equipment.



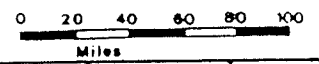
YUKON TERRITORY

LOCATION MAP

LADY DI PROPERTY

NORANDA EXPLORATION CO.

Scale 1:4,444,444



X - Lady Di Claims

WHITEHORSE

116

106

96

115

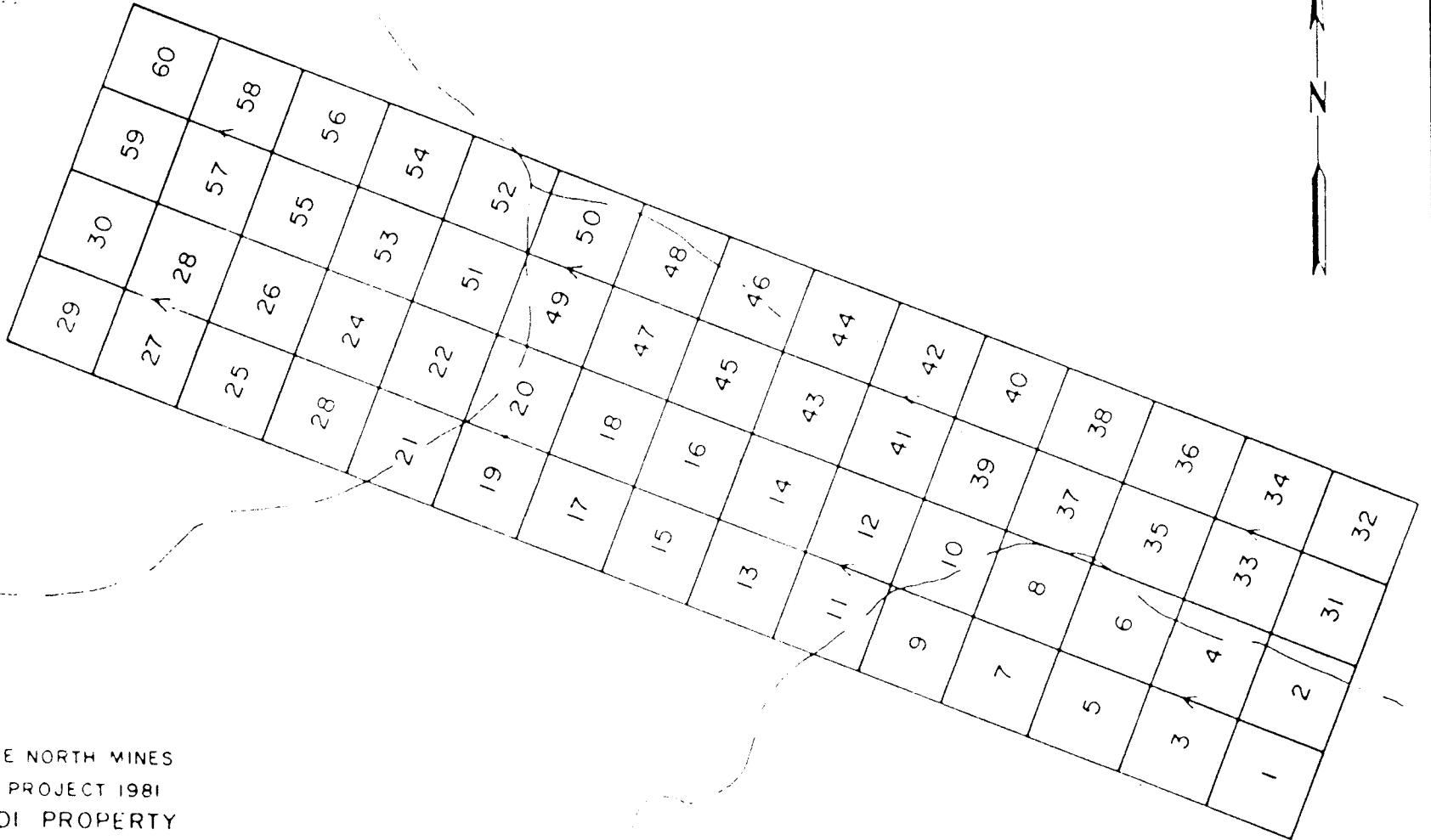
105

95

STOKES LAKE



33°40'
62°50'



WELCOME NORTH MINES
BASIN PROJECT 1981
LADY DI PROPERTY
CLAIM MAP
N.T.S. 105K/13



Scale in Feet

OCTOBER, 1981

FIGURE 2

GEOLOGICAL SETTING

The Lady Di property occurs in Devono-Mississippian rocks of the western margin of the Selwyn Basin. In the area of the Earn Hills, the Devono-Mississippian strata tend to dip southwesterly from the older Road River cherts of the central Selwyn Basin. Mudstones, cherts and chert pebble conglomerates are the most common lithologies exposed on the property. Black slates with local graptolitic sections seen on the property likely are correlative with the Road River Formation. Massive grey limestone seen within the mudstone units may be equivalent to the Mississippian Kalzas Formation. A small quartz veined alaskite intrusion is exposed in three small outcrops on the east portion of the property, and constitutes the only intrusive rocks seen. Figure 4 summarizes the geological setting of the claim area.

Mineralization found to date is restricted to the interface between the mudstone section and the overlying Mississippian Kalzas limestone.

Table II. STRATIGRAPHIC SECTION

<u>AGE</u>	<u>FORMATION</u>	<u>LITHOLOGY</u>	<u>GSC MAP UNIT</u>
eT (?)		alaskite	13
K	South Fork Volcanics	andesite, basalt	14
u Tr		silty yellow limestone	10
P		rusty orange slate	8
M	Kalzas Formation	massive grey limestone	6
M		green to grey siliceous chert and tuff with lateral argillaceous shales and limy siltstone	5b
***** angular discordance *****			
DM	Crystal Peak Formation	chert, sandstone and conglomerate	5a
***** unconformity *****			
uD		cherty black slate	5c
***** angular discordance *****			
		massive to thick - bedded sark grey chert with lateral carbonates	3 - 4
		thin bedded limy chert	3 - 4
OSD	Road River Formation	cherty mudstones, massive thick bedded chert	3 - 4

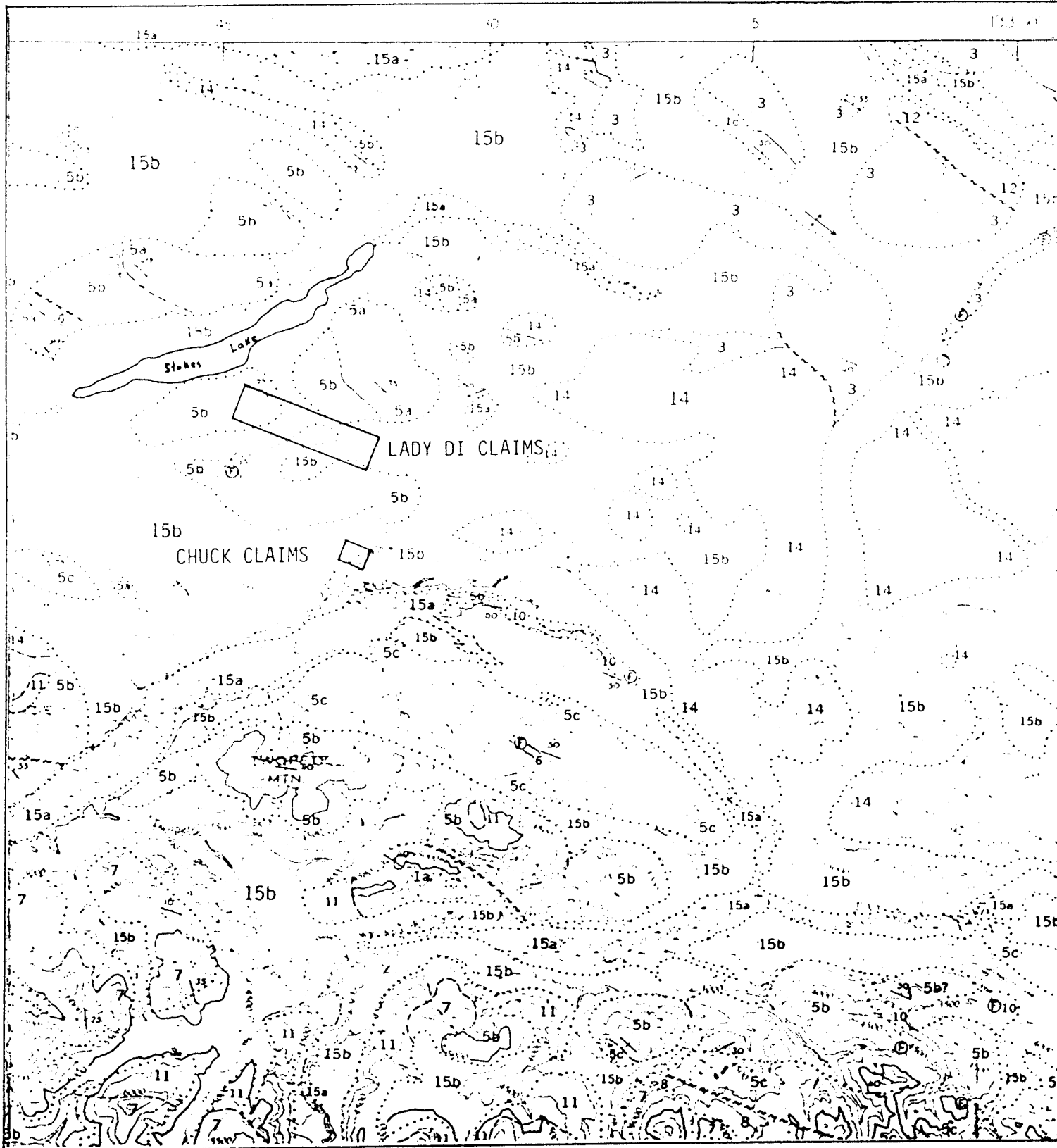


Figure 4. Geological Setting (From G.S.C. Map 13-1961, Roddick and Green).
 Scale 1:250,000
 See text for legend.

DIAMOND DRILLING

Diamond drilling for the 1982 season was contracted out to B.B.S. Diamond Drilling, Ltd. of Whitehorse, Yukon Territory. B.B.S. was represented on the site by Mr. Al Carlos, operating a BBS-I series drill to produce "BQ" size core. The proposed water source, a small pond south of the main showing proved to be inadequate for the volume of water required; water was pumped from the creek valley north of and some 600 feet below the first collar. A linear run of 3200 feet was required for waterline.

The drill was mobilized to the property on 24 September 82, and three holes in the vicinity of the main showing were drilled for a total depth of 614.0 feet.

Mechanical breakdowns and severe weather plagued the drilling program, which did not terminate until 24 October 82.

Geological sections and drill plan are seen in Figure 4. The first two holes encountered no significant mineralization, and were complicated by broken ground throughout. Correlation between these two holes is difficult. The third hole was collared immediately above the main showing and tested this area to a depth of 109 feet. A vuggy intersection of massive sphalerite was found from 82.5 to 85.5 feet in this hole. No other economic mineralization was found in the 1982 drill program.

Table III. DRILLING SUMMARY

<u>HOLE</u>	<u>DEPTH (Ft.)</u>	<u>DIP</u>	<u>AZIMUTH</u>	<u>NORTHING</u>	<u>EASTING</u>
1	246.0	-60	022	6 + 50	33 + 50
2	259.0	-60	022	5 + 18	33 + 50
3	109.0	-60	022	6 + 86	33 + 25
TOTAL	614.0				

APPENDIX I. DRILL LOGS

NORANDA EXPLORATION COMPANY LTD.

Date Collared 06 Oct 82		Date Completed 08 Oct 82		Core Size BQ		DIP TESTS				PROPERTY LADY DI OPTION		PROJECT No 931		NTS No 105K/13			
FIELD CO-ORDINATES						DEPTH	BEARING		ANGLE		SURVEYED CO-ORDINATES						
Lat. 6 + 50 N		Elev 1000.0 m		Dip -60N			RECORDED	CORRECTED	RECORDED	CORRECTED	Lat.		Elev		Dip		
Dep 33 + 50 W		Length 246.0'		Bearing 022°						Dep		Length		Bearing			
From	Recovery	Graphic Log	UNIT NAME		MINERALIZATION		Structure	% Sulph	Est Grade	SAMPLE No	Width	ASSAYS					
To			Description & Alteration														
0.0			OVERBURDEN														
14.0			Chips and cobbles of green siltstone and angular chunks of grey limestone.														
14.0	75		GREY SILTSTONE		DISSEMINATED PYRITE			1.0									
45.0		Dark grey to black brecciated siltstone with ribbons and pods of greyish quartz; minor pyrite disseminations with rare pyrrhotite.															
			Limonitic material fills fractures; this section has a brecciated appearance throughout.														
45.0	80		GREY TO BLACK SILTSTONE		DISSEMINATED PYRITE		bedding normal										
57.0		Rounded pods of quartz up to 1/2" diameter; less brecciated than above section; bedding appears normal to core axis															
57.0	80		GREEN SILTSTONE														
107.0		Light green siltstone with darker green rare bands; bedded nearly normal to core axis; random and rare cherty bands throughout; some															
			calcareous material fills fractures.														
107.0	50		SILTSTONE BRECCIA														
111.0		Light grey brecciated siltstone with minor calcareous interbeds; Bedding appears normal to core axis.															
111.0	75		GREEN SILTSTONE		MODERATE PYRITE			2.0									
112.5		Banded light grey green siltstone with pyrite disseminated throughout; traces of very fine grained sphalerite in fractures.															

DRILL LOG - 01

Date _____ Logged By _____

NORANDA EXPLORATION COMPANY LTD.

Date Colored		Date Completed		Core Size		DIP TESTS				PROPERTY		PROJECT No.		NTS No.		
FIELD CO-ORDINATES						DEPTH	BEARING		ANGLE		SURVEYED CO-ORDINATES					
Lat.		Elev.		Dip			RECORDED	CORRECTED	RECORDED	CORRECTED	Lat.		Elev.		Dip	
Dep.		Length		Bearing						Dep.		Length		Bearing		
From	Recovery	Graphic	UNIT NAME		MINERALIZATION		Structure	% Sulph.	Est. Grade	SAMPLE No.	Width	ASSAYS				
To		Log	Description & Alteration													
112.5	80		GREY GREEN SILTSTONE	MINOR PYRITE												
129.0		Finely banded grey-green siltstone with random thin interbeds of grey limestone or limy siltstone; some graphitic slips on siltstone sections.														
129.0	80		GREEN SILTSTONE	MODERATE PYRITE												
134.0		Banded siltstone continues, with minor carbonate interbeds; 133.0 to 133.3 : massive pyrite.														
134.0	80		GREY GREEN SILTSTONE													
246.0		Monotonous section of banded grey to green siltstone; some fine interbands of limy siltstone.														

DRILL LOG - 81

Date 09 Oct 82 Logged By R.S. Rogers

NORANDA EXPLORATION COMPANY LTD.

Date Collared		Date Completed		Core Size		DIP TESTS				PROPERTY		PROJECT No.		N.T.S. No.	
11 Oct 82		14 Oct 82		BQ		DEPTH		BEARING		ANGLE		SURVEYED CO-ORDINATES			
FIELD CO-ORDINATES						RECORDED		CORRECTED		RECORDED		CORRECTED		Sheet 1 of 2	
Lat. 5 + 18 N		Elev. 1014.0 m		Dip -60N										HOLE No.	
Dep. 33 + 50 W		Length 259.0'		Bearing Q22'										2 (TWO)	
From	To	Recovery	Graphic Log	UNIT NAME		MINERALIZATION		Structure		% Sulph.	Est Grade	SAMPLE No.	Width	ASSAYS	
				Description & Alteration											
0.0	17.0			OVERBURDEN											
				Chips and pebbles of green siltstone and organics.											
17.0	97.0	40		GREY SILTSTONE		MINOR PYRITE									
				light grey siltstone in places shows brecciated appearance and infilling of breccia with fine grained pyrite. Minor limonitic filling of fractures throughout this section.											
97.0	115.0	50		GREY GREEN SILTSTONE											
				basically same lithology as above, with addition of dark green interbands totalling 20% of section. These appear to be very fine grained siltstone with a color reminiscent of diopside, but too fine grained for positive identification.											
115.0	118.0	75		GREY SILTSTONE		MINOR PYRITE									
				grey to black banded siltstone with discordant pods of finely crystalline pyrite. Bedding indeterminate.											
118.0	130.0	50		GREY SILTSTONE BRECCIA		MINOR PYRITE									
				Slightly cherty, breccia fragments surrounded by fine grained pyrite.						1.0					
130.0	150.0	75		GREEN TO BLACK SILTSTONE		MINOR PYRITE									
				Pyrite in a few small lenses and minor pyrrhotite. Banding normal to core axis.											

DRILL LOG - 81

Date _____ Logged By _____

NORANDA EXPLORATION COMPANY LTD.

Date Colored		Date Completed		Core Size		DIP TESTS				PROPERTY			PROJECT No.		N.T.S. No.									
FIELD CO-ORDINATES				DEPTH		BEARING		ANGLE		SURVEYED CO-ORDINATES						Sheet 2 of 2								
Lot.		Elev.		Dip		RECORDED		CORRECTED		RECORDED		CORRECTED		Lot.		Elev.		Dip		HOLE No.				
Dep.		Length		Bearing										Dep.		Length		Bearing		2				
From	Recovery	Graphic Log	UNIT NAME			MINERALIZATION			Structure	% Sulph.	Est. Grade	SAMPLE No.	Width	ASSAYS										
- To			Description & Alteration																					
150.0	60		GRAPHITIC ARGILLITE			MINOR PYRITE				2.0														
			Black graphitic argillaceous section with rare bands of lighter colored siltstone; fine grained euhedral pyrite disseminated throughout																					
219.0	50		GRAPHITIC BRECCIA			MINOR PYRITE																		
			Moderately brecciated black graphitic section with cross cutting veinlets of grey quartz and fine euhedral pyrite; minor pyrrhotite.																					
225.0	60		GRAPHITIC ARGILLITE																					
			Graphitic section as in 150.0-219.0 above; very minor pyrite disseminations.																					
238.0	70		GREY TO BLACK SILTSTONE			MINOR PYRITE				0.5														
			Banded and graphitic siltstone, minor veinlets of pyrite cross cut banding; minor pyrrhotite.																					

DRILL LOG - 81

Date 15 Oct 82 Logged By R. S. Rogers

NORANDA EXPLORATION COMPANY LTD.

Date Collected		Date Completed		Core Size		DIP TESTS				PROPERTY		PROJECT No		N.T.S. No				
18 Oct 82		19 Oct 82		BQ		DEPTH	BEARING		ANGLE		SURVEYED CO-ORDINATES				Sheet 1 of 1			
FIELD CO-ORDINATES		Elev.		Dip			RECORDED	CORRECTED	RECORDED	CORRECTED	Lot		Elev.		Dip			
6 + 86 N		988.0 m		-60						Dep		Length		Bearing		HOLE No.		
33 + 25 W		109.0'		022°						3 (THREE)								
From	To	Recovery	Graphic Log	UNIT NAME	MINERALIZATION	Structure	% Sulph.	Est. Grade	SAMPLE No	Width	ASSAYS							
				Description & Alteration							Pb	Zn	Ag					
0.0	12.0			OVERBURDEN														
				Chips and pebbles of green siltstone; silt and clay and organics.														
12.0	82.5	75		QUARTZITIC SILTSTONE		banded normal to core axis	T		0004J	75.0-82.5 (7.5')	0.14 %	0.06 %	0.24 OPT					
				Appears to be a recrystallized siltstone, grey to moderate green in color; some limy sections throughout; minor disseminated pyrite.														
82.5	85.5	85		MASSIVE SULPHIDE		vuggy			0005J	82.5-85.5 (3.0')	0.08 %	9.60 %	0.40 OPT					
				Massive coarsely grained sphalerite and minor galena, pyrrhotite and pyrite. Trace of chalcopyrite (?) Contacts with adjoining														
				sections are blurry, appear to be reminiscent of vug infilling. Small chips of grey limestone throughout.														
85.5	109.0	50		GREY GREEN SILTSTONE		banded normal to core axis			0006J	85.5-90.0 (4.5')	0.02 %	0.06 %	0.04 OPT					
				Banded siltstone with slight brecciation infilling of grey quartz and calcite. Some sections are very calcareous, and recovery over these														
				sections is near zero, suggesting that they have been largely delithified. (Calcareous sections likely account for 50% of section by estimate)														

DRILL LOG - 81

Date 20 Oct 82 Logged By R.S. Rogers

APPENDIX II. Assay Data

APPENDIX III. STATEMENT OF COSTS

NORANDA EXPLORATION COMPANY, LIMITED

STATEMENT OF COST

PROJECT Lady Di
TYPE OF REPORT Drilling

DATE January 14, 1983

a) Wages:

No. of Days	62		
Rate per Day	\$ 214.22		
Dates From:	Sept. 1 - December 31/82		
Total Wages	62	x \$214.22	13,281.44

b) Food and Accomodation:

No of days	62		
Rate per day	\$ 154.04		
Dates From:	Sept. 1 - Dec. 31/82		9,550.65
Total Cost	62	x \$ 154.04	

c) Transportation:

No of days	62		
Rate per day	\$ 667.60		
Dates From:	Sept 1 - Dec. 31/82		
Total Cost	62	x \$ 667.60	41,391.33

d) Instrument Rental:

Type of Instrument			
No of days			
Rate per day	\$		
Dates From:			
Total Cost		x \$	

Type of Instrument			
No of days			
Bate per day	\$		
Dates From:			
Total Cost		x \$	

f) Analysis
(See attached schedule)

g) Cost of preparation of Report

Author 428.44

Drafting 428.44

Typing 428.44

h) Other:

Contractor 20,000.00

Camp and Field Supplies 6,299.11

Total Cost

\$91,807.85

e) Unit costs for

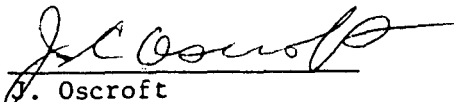
No of days

No of units

Unit costs /

Total Cost x

The Exploration cost of
is certified correct by



J. L. Oscroft
Br. Accountant

APPENDIX IV. STATEMENT OF QUALIFICATIONS

STATEMENT OF QUALIFICATIONS

I, Randall Stewart Rogers, of the City of Whitehorse in the Yukon Territory, do hereby certify:

THAT I Have been employed as a Project Geologist by Noranda Exploration Company, Limited (No Personal Liability) since the first day of January, 1980;

THAT I am a graduate of the University of British Columbia with the degree of Bachelor of Science (Honours) in Geology;

THAT I am a graduate of Queen's University at Kingston, Ontario with the degree of Master of Science in Mineral Exploration;

THAT I am a Notary Public in and for the Yukon Territory;


THAT I am a member of the Canadian Institute of Mining and Metallurgy (Geology Section) ;

THAT I am a member of the Geological Association of Canada, and

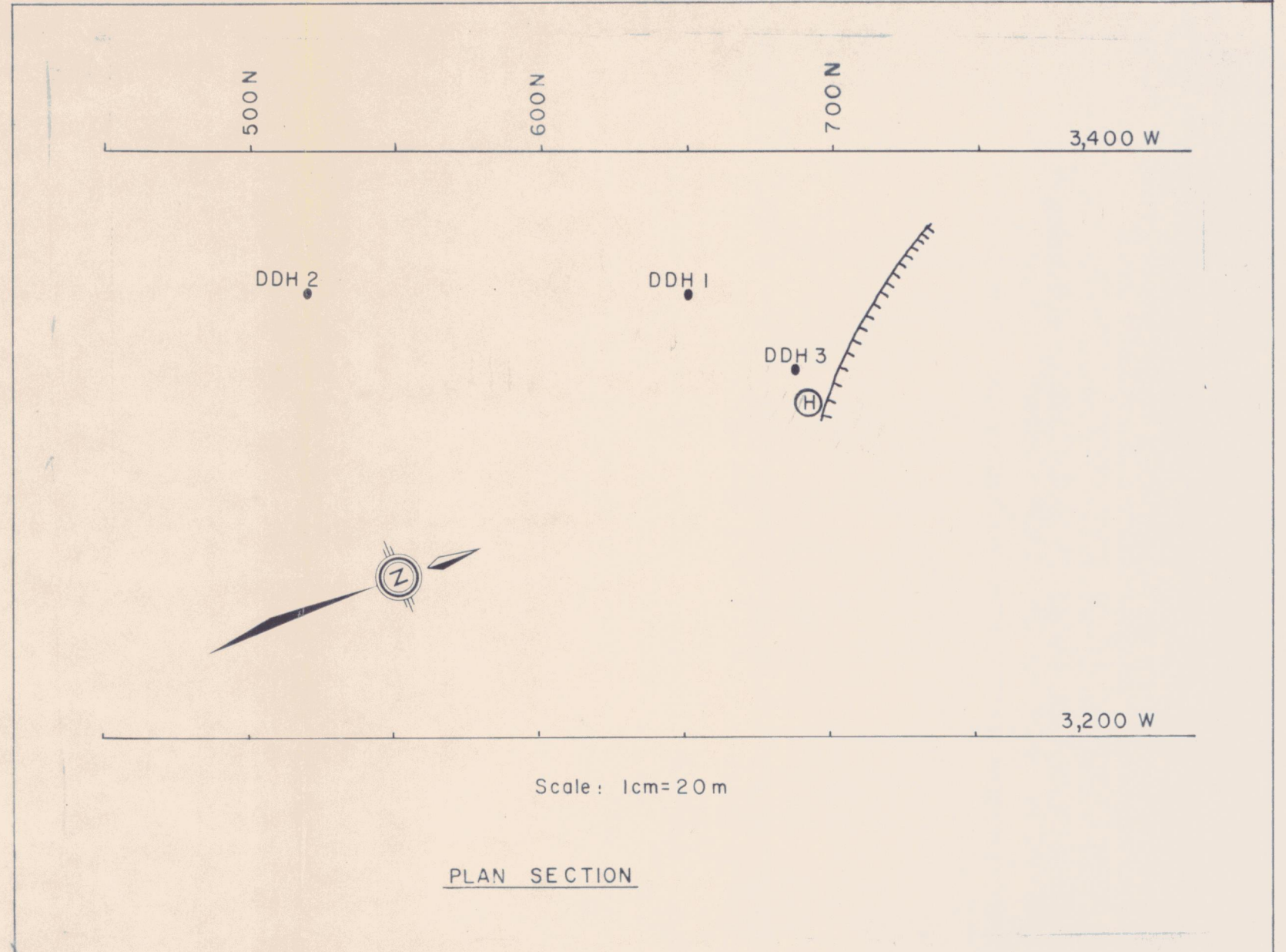
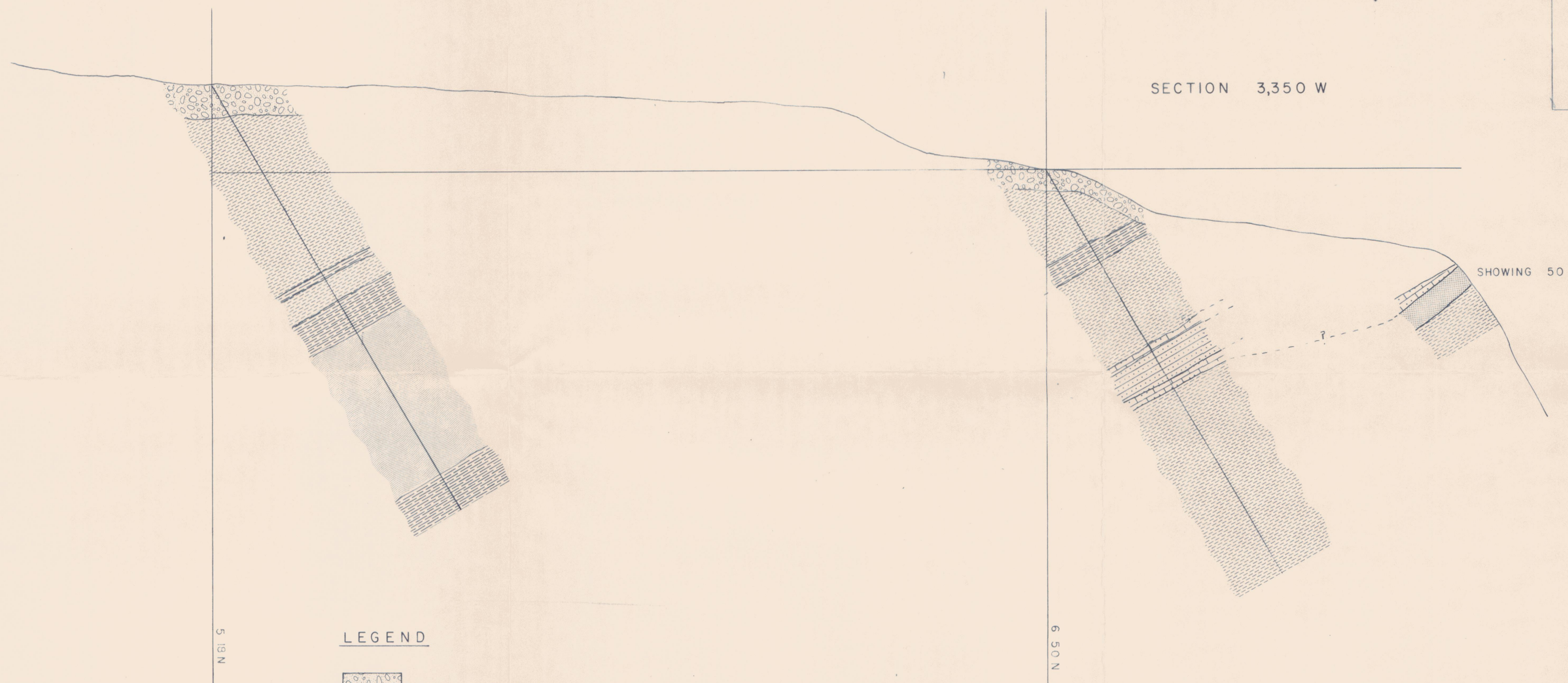
THAT I am a Professional Geologist (P. Geol.) licenced under the Association of Professional Engineers, Geologists and Geophysicists of Alberta.

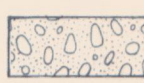
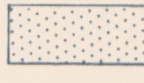
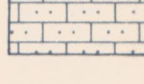
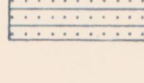


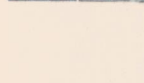
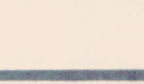
Dated this 20 day of January, A.D. 1983

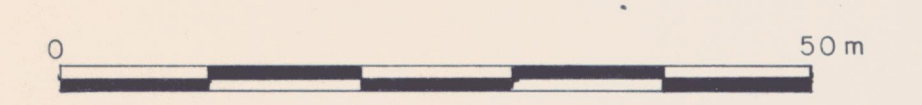
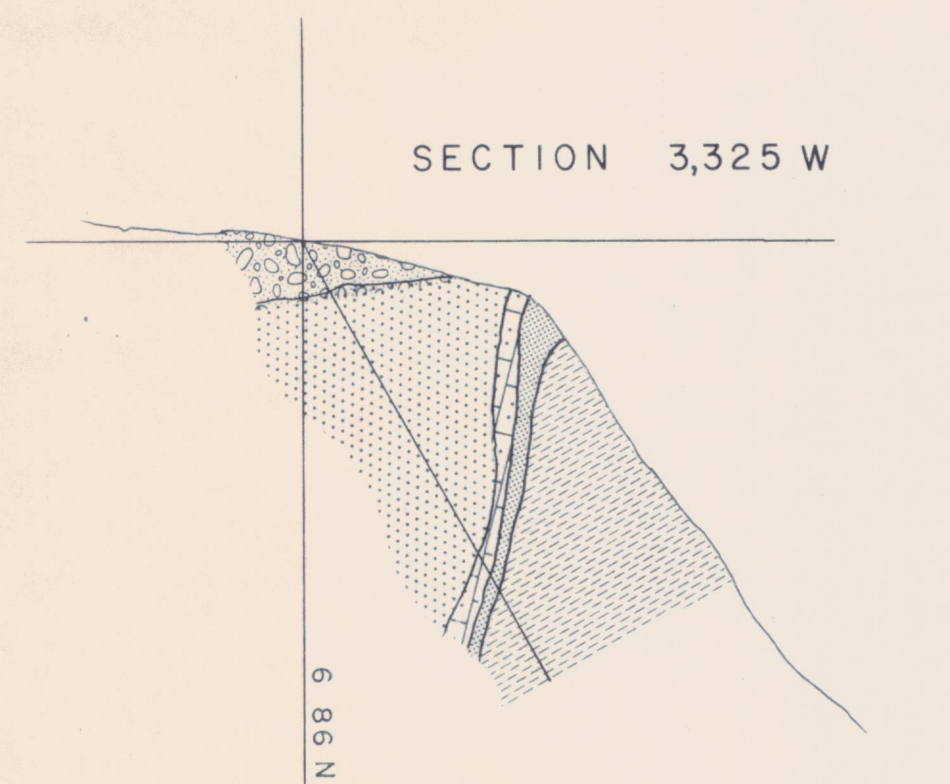
at WHITEHORSE, YUKON TERRITORY



(Randall Stewart Rogers, M.Sc., P. Geol.)
Noranda Exploration Company, Ltd. (NPL)



- LEGEND**
-  Overburden
 -  Quartzite
 -  Limestone breccia
 -  Limy siltstone
 -  Massive sulphides
 -  Grey-green siltstone
 -  Grey to black argillite
 -  Black graphitic argillite



REVISED	LADY DI OPTION	
	DRILL SECTIONS 091420	
	Looking grid north (292°)	
PROJ. No. 931	SURVEY BY: G.D.	DATE: Nov., 1982
N.T.S. 105 K/13	DRAWN BY: G.D.	SCALE: 1cm = 5m
DWG. No.	NORANDA EXPLORATION	
	OFFICE: Whitehorse, Y.T.	