

MAP NO. 105 C 11  
ASSESSMENT REPORT X  
PROSPECTUS  
CONFIDENTIAL X  
OPEN FILE

DOCUMENT NO.: 092105  
MINING DISTRICT: WHITEHORSE  
TYPE OF WORK: GEOLOGICAL, GEOCHEMICAL  
DIAMOND DRILLING

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REPORT FILED UNDER: Noranda Exploration Company Limited

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DATE PERFORMED: March 9 - June 7, 1987      DATE FILED: Feb. 8, 1988

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LOCATION:    LAT.:      60°33'N      AREA:      Squanga Lake

---

              LONG.:     133°28'W      VALUE \$: 8,000.00

---

CLAIM NAME & NO.:    TES 30-45   YA95029-032; YA95972-73; YA96567-76

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WORK DONE BY:      H. Copland

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WORK DONE FOR:     Noranda Exploration Company Limited

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DATE TO GOOD STANDING	REMARKS:
	#39 TES

GEOLOGICAL, GEOCHEMICAL, TRENCHING &  
DIAMOND DRILLING REPORT  
on the  
TES 30 - 45 CLAIMS

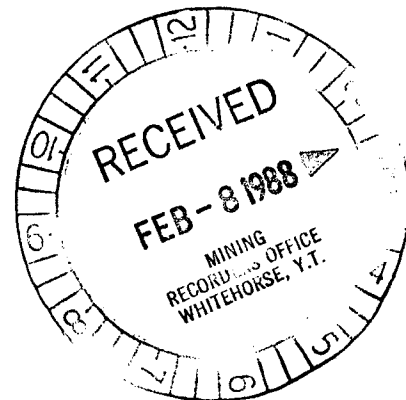


Whitehorse Mining District

N.T.S. 105 C/11

Latitude:  $60^{\circ} 33' N$

Longitude:  $133^{\circ} 28' W$



Owned & Operated by:

Noranda Exploration Company Limited

No Personal Liability

January, 1988

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 \$ 8 000. 00 .

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

## SUMMARY

The TES 30 - 45 claims are located 5 km north of the Alaska Highway between Squanga Lake and Johnson's Crossing. In 1987 a program of soil sampling, geological mapping, trenching, and diamond drilling was conducted over a geochemical and geophysical anomaly delineated in 1986. A quartz stockwork zone with related disseminated and stringer pyrite, pyrrhotite, chalcopyrite and arsenopyrite was found to occur in basic volcanic rocks of Upper Triassic age. Economic widths of mineralization were not encountered and no further work is planned at this time.

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## CHAPTER ONE INTRODUCTION

## 1-1: Introductory Statement

The TES 30 - 45 claims are located 90 kilometres east of Whitehorse just north of the Alaska Highway. The claims were staked in 1986 to cover a coincident geochemical and geophysical anomaly. During 1987 a program of soil sampling, geological mapping, trenching and diamond drilling was conducted.

## 1-2: Location &amp; Access

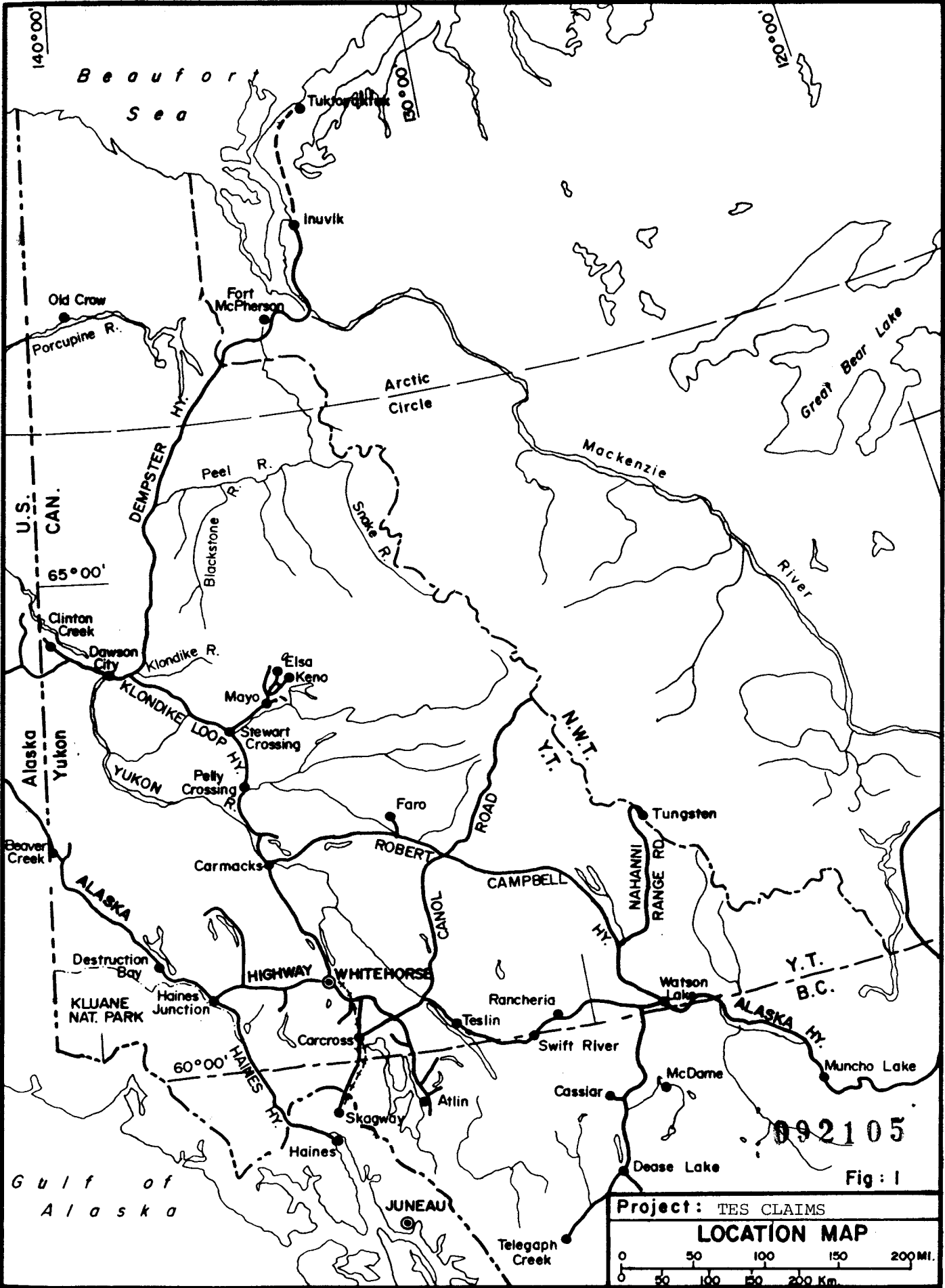
The property (NTS 105 C/11, Latitude  $60^{\circ}33'N$ , Longitude  $133^{\circ}28'W$ ) is located 90 kilometres east of Whitehorse and 60 kilometres north-west of Teslin, Yukon (see fig. 1 & 2). Access is via a 5 km cat trail from a microwave relay station near Squanga Creek.

## 1-3: Topography &amp; Vegetation

The claims lie southwest of the Teslin River and northeast of Squanga Lake. This area is characterized by low rolling mountains, averaging 1500 to 1800 metres in elevation, surrounded by numerous small lakes, marshes and creeks. On the property elevation varies from a low of 760 metres in the northeast to a high of 1070 metres in the southwest.

The property is located on a moderate northeast facing slope running down to the Teslin River. The area is well forested with spruce, pine, poplar and some birch. Several small creeks drain northeast into the Teslin River.

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VANGAL 11926

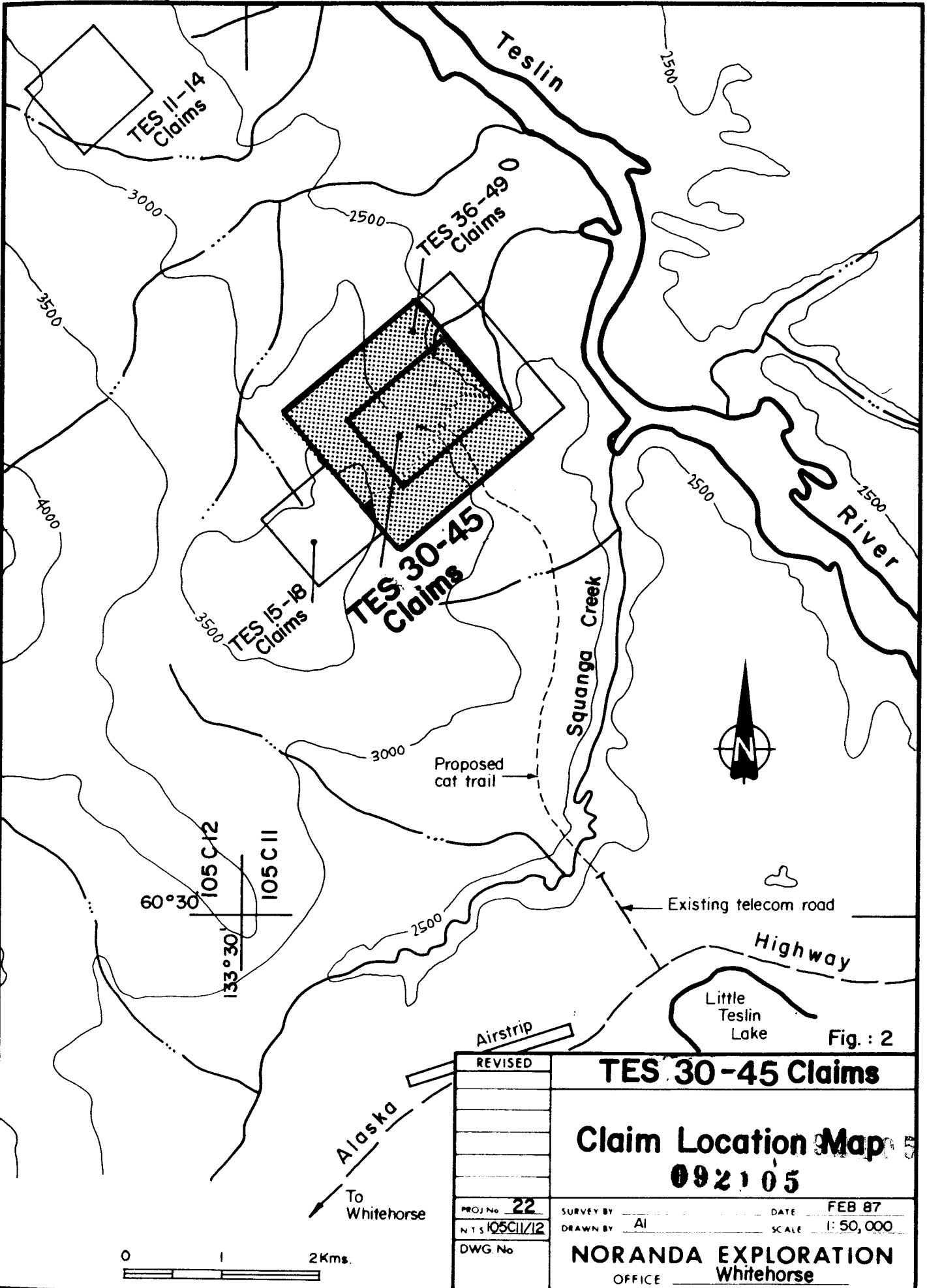


Fig : 2

REVISED	<b>TES 30-45 Claims</b>	
	<b>Claim Location Map</b>	
	<b>092105</b>	
PROJ No <b>22</b>	SURVEY BY	DATE <b>FEB 87</b>
N T S <b>105C11/12</b>	DRAWN BY <b>AI</b>	SCALE <b>1: 50,000</b>
DWG No	<b>NORANDA EXPLORATION</b>	
	OFFICE <b>Whitehorse</b>	

VANCAL 11827

## 1-4: Claim Definition

The following table summarizes claims held in the area:

CLAIM NAME	GRANT NO.	RECORDED	ANNIVERSARY
TES 30 - 33	YA 95029 - 32	June 23/86	Dec. 8/94
TES 34 - 35	YA 95972 - 73	Aug. 19/86	Dec. 8/94
TES 36 - 45	YA 96567 - 76	Dec. 8/86	Dec. 8/91

The above anniversary date is pending acceptance of this report.

## 1-5: Work Program

In the fall of 1985 an airborne geophysical study was flown in the Teslin - Johnson's Crossing area for Noranda Exploration. Follow-up ground geophysics and soil geochemistry was carried out in 1986 resulting in the staking of the TES claims. Further geophysical and geochemical programs were then carried out. Details are provided in Copland (1987).

## 1-6: 1987 Work Program

A trenching program was conducted on the TES claims during the period March 9 - 16, 1987. A D-7 cat was mobilized from the microwave relay station at Squanga Creek and four trenches put in. A subsequent diamond drilling program consisting of 2 BQ holes totalling 180 metres was carried out from April 30 to May 21, 1987. Between the period June 1 - June 7, 1987 a soil geochemical and geological survey was conducted on the TES claims.

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The following personnel and contractors were involved in the work

program:

Hugh Copland	Project Geologist	Whitehorse
Gordon McKay	Geological Assistant	Vancouver
Tim Daly	Field Assistant	Whitehorse
Derek Dodge	Trenching Contract	Whitehorse
Asmith Diamond Drilling		Atlin, B.C.

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## CHAPTER TWO: GEOLOGY

## 2-1: Regional Geology

The TES claims are located in the Intermontane Belt of the northern Cordillera. More specifically, they lie along the eastern margin of the Mesozoic Whitehorse Trough. The trough consists primarily of the Pennsylvanian/Permian Cache Creek Group: limestone, chert and basalt; the Upper Triassic Lewes River Group: basic volcanic rocks and limestone reefs; and the Lower Jurassic Laberge Group clastic units. All units are intruded by granitic rocks of the Cretaceous Coast and Cassiar intrusives.

To the east of the claims across the Teslin River, a thin slice of sheared and metamorphosed rocks of the Yukon Cataclastic Complex crop out. Just to the east of this, the Teslin Suture separates rocks of the Yukon Cataclastic Terrane from those of the Cassiar Platform, part of the ancient North American Margin. Further details on regional geology may be found in Mulligan (1963).

## 2-2: Property Geology

The claims are underlain by volcanic and volcanoclastic rocks, probably Triassic in age, possibly related to the Lewes River Group. Limited mapping has delineated two major units: 1) a basic tuff with intercalated chert and siltstone, and ii) a felsic tuff and tuff breccia to the west of the first. A zone of alteration approximately 300 metres long and 75 metres wide occurs in the basic volcanic unit. This zone is gossanous, silicified, clay altered and contains up to 10% pyrite, pyrrhotite and minor chalcopyrite, related to quartz veinlets.

A brief description of the major units observed follows:

Unit number refers to mapped units (see figs. 3, 4, 5).

#### Unit 8: Acidic Volcanic Rocks

This unit which outcrops sparingly in the central portion of the claims is comprised of rhyolitic tuffs and flows typically buff weathering and fine grained.

#### Unit 6: Basic Volcanic Rocks

By far the most widespread unit on the claims, it has been broken down into units 6a, b, c, (regionally) and Units 1 - 4 on the trenching drawings.

6a: Feldspar porphyritic tuff: dacitic in composition with anhedral phenocrysts of feldspar typically 2 - 8% of the rock in a fine grained dark green groundmass.

6b: Lapilli tuff and tuff breccia: multilithic clasts ranging in size from 0.2 - 10 cm in size in a fine grained green groundmass similiar to 6a.

6c: Feldspar - hornblende porphyritic: identical to 6a except for fine tabular phenocrysts of hornblende up to 5 mm in size.

#### Unit 5: Sediments

5c: Argillite: was observed on the extreme eastern edge of the property. They are thought to be related to the Jurassic Laberge Group. Other minor cherts probably Upper Triassic in age were observed in trenches and will be discussed under that section.

TABLE 1  
TABLE OF FORMATIONS

CRETACEOUS

Coast Range and Cassiar Intrusions

- 9 - granite, granodiorite

TRIASSIC?

Lewes River Group(?)

- 8 - felsic volcanics, pyroclastics, tuffs and flows  
7 - intermediate volcanic rocks, flows  
6 - basic volcanic rocks, agglomerates, lavas and tuffs  
5 - epiclastic rocks  
5a - volcanic sandstone  
5b - conglomerate, tuff  
5c - argillite, tuff

PERMIAN AND CARBONIFEROUS

Cache Creek Group

- 4 - limestone, interbedded chert and argillite  
3 - basic volcanic rocks, minor chert and carbonates  
2 - mafic and ultramafic intrusives  
2a - ultramafic rocks  
2b - diorite

MISSISSIPPIAN or EARLIER

Big Salmon Complex

- 1 - schist, gneiss, quartzite and greenstone

## CHAPTER THREE: GEOCHEMISTRY

## 3-1: Procedure

A total of 224 soil and 23 rock samples were collected from regional sampling on the TES claims in 1987. Soil sampling consisted of infill and expanded sampling on the grid established in 1986. Soils were collected from the B - horizon with the use of a mattock. Sampling intervals of 12.5 metres were used on infill sampling and 50 metre intervals on expanded soil lines (see fig. 6). All samples were sent to Noranda's Vancouver lab for preparation and analysis. Soils were analysed for Cu, Pb, Zn, Ag, As, and Au using standard geochemical procedures.

## 3-2: Results

Infill sampling confirmed the anomalies obtained in 1986 (see Copland, 1987). A strong anomaly exists in the vicinity of the baseline (10000 N) between lines 9900 E and 10300 E. Copper, silver and arsenic tend to give the best response although all other elements are anomalous in this area. Gold values however are not as strong as was hoped. The extended grid to the west failed to define any extensions to the main zone.

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## CHAPTER FOUR: TRENCHING

## 4-1: Procedure

A D-7 Cat was mobilized from Squanga Creek and walked a distance of 5 kilometers into the property. A total of four trenches totalling approximately 220 metres in length were put in. Trench dimensions are summarized below and locations are shown on figure 4.

	Length (m)	Material Removed (cu.m.)	# Samples
Trench 1	85	300	33
Trench 2	25	80	5
Trench 3	50	150	12
Trench 4	60	180	16
TOTAL	220	710	66

Trench #1 was chip sampled over its entire length on 3 metre sample intervals and later some intervals were resampled on 1 metre intervals. Trenches #2-4 were selectively sampled at 3 and 1 metre intervals (see figs. 4 & 5).

## 4-2: Results

Trenching revealed mainly Unit 6 basic volcanics with some variations in alteration which have been distinguished on figs. 4 & 5. In general all trenches consisted of dark green dacitic tuff with varying degrees of silicification and some local chert beds. Quartz pods and veinlets commonly contain pyrite, pyrrhotite, chalcopyrite and arsenopyrite as stringers and disseminations. Best gold values are associated with shear zones through the tuff. Trench #4 had best values of 1640 ppb Au (#93589) over 3 metres and 4100 ppb Au (#99832) over 1 metre. Copper values are elevated throughout the tuff typically in the 200 - 500 ppm range with a

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high of 3680 ppm (#93585) in Trench #3. Similiar to copper, silver values were usually anomalous in the more altered sections of the tuff. A best value of 58.0 ppm (#99842) was obtained in Trench #3.

Trench #4 had a section anomalous in As, 20600 ppm; Pb, 5100 ppm; and Zn, 2180 ppm (#99832).

## CHAPTER FIVE: DIAMOND DRILLING

## 5-1: Procedure

A diamond drilling program was conducted during May 1987. Two holes were selected to test coincident geochemical and geophysical anomalies in the vicinity of Trench #1 & #4.

Hole locations are shown on Figure 3.

Hole 87 - 1: Location: 9997 N, 9900 E

Azimuth: 353

Angle: -50

Length: 93.9 m

Hole 87 - 2: Location: 9967 N, 10007 E

Azimuth: 320

Angle: -50

Length: 86.0 m

A Boyles 300 drill utilizing BQ core size was supplied by Asmith Diamond Drilling of Atlin B.C. and skidded onto the property. At present, core remains on site.

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## 5-2: Results

Complete drill logs for the two holes are included in the appendix. In brief, both holes encountered a basic crystal and lithic tuff with varying degrees of silicification and carrying disseminated pyrite, pyrrhotite ± chalcopyrite and arsenopyrite. The core was selectively sampled on intervals varying between 0.5 and 2.0 metres. A total of 19 samples from 87-1 and 10 samples from 87-2 were collected. Best gold interval was 0.34 gmt over 1.2 m in hole 87-1. Hole 87-2 was anomalous in copper over its length but had low gold.

## CHAPTER SIX: CONCLUSIONS &amp; RECOMMENDATIONS

Two diamond drill holes on the property have encountered sufficient mineralization in the form of disseminated and stringer pyrite, pyrrhotite, chalcopyrite, and arsenopyrite to explain both geochemical and geophysical anomalies delineated in 1986. Regional sampling and geological mapping has failed to define any extensions of this mineralization beyond the area trenched and drilled. No further drilling is recommended at this time as economic values were not encountered in drilling.

Respectfully submitted by,



-----

Hugh Copland

Project Geologist

092105

## SELECTED REFERENCES

Copland, H.

1987: Geological, Geochemical & Geophysical Report on the  
TES 30-35 Claims.

Mulligan, R.

1963: Teslin Map Area (105 C); GSC Memoir 326.

## COST STATEMENT

1) LABOUR		
a) Field: Geologist 30 days X \$110/day		\$ 3300.
Assistants 25 days X \$ 90/day		2250.
		<u>5550.</u>
2) FOOD & ACCOMODATION: 55 md X \$30/day		\$ 1650.
		<u>1650.</u>
3) SAMPLE ANALYSIS		
Soil: (Cu, Pb, Zn, Ag, Au, As) 220 X \$15/sample		3300.
Rock & Core: (Cu, Pb, Zn, Ag, Au, As) 120 X \$20/sample		2400.
		<u>5700.</u>
Geochem Total		\$5700.
4) TRENCHING		
920 cubic yds. (710 cu metres) X \$1.50/yd.		\$1380.
		<u>1380.</u>
5) DIAMOND DRILLING (180 metres, BQ)		
590 ft. X \$15/ft.		8850.
		<u>8850.</u>
	Total	\$23130.

## STATEMENT OF QUALIFICATIONS

I, Hugh Copland of the City of Whitehorse, Yukon, do hereby certify that:

1. I have been an employee of Noranda Exploration Company Limited (NPL) in Whitehorse since May, 1985.
2. I am a graduate of the University of British Columbia with a B.Sc. in Geology and of McMaster University, Hamilton, Ontario with a B.Eng..
3. I am a member of the Yukon Professional Geoscientist Society, and the Geological Association of Canada.
4. I supervised work on the TES Claims during the summer of 1987.



Hugh Copland  
Project Geologist

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APPENDIX 1  
Geochemical Results

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23  
8704-004

ROSSBACHER LABORATORY LTD.

2225 S. SPRINGER AVENUE  
BURNABY, B.C. V5B 3N1  
TEL : (604) 299 - 6910

CERTIFICATE OF ANALYSIS

TO : NORANDA EXPLORATION CO. LTD.  
1050 DAVIE STREET  
VANCOUVER B.C.  
PROJECT: 322 8704-004  
TYPE OF ANALYSIS: GEOCHEMICAL

*leslin (wr)*

CERTIFICATE#: 87153  
INVOICE#: 7552  
DATE ENTERED: 87-04-07  
FILE NAME: NOR87153  
PAGE # : 1

RE IX	SAMPLE NAME	PPM Cu	PPM Ag	PPM Zn	PPM Pb	PPB Au	PPM As
A	99826	192	1.0	650	30	30	610
A	99827	220	1.4	690	46	80	710
A	99828	302	1.6	900	114	140	680
A	99829	224	2.8	1360	164	100	462
A	99830	158	9.4	294	2260	1120	6500
A	99831	268	2.2	2060	388	300	2600
A	99832	412	19.8	2180	5100	4100	20600
A	99833	112	1.0	420	118	10	348
A	99834	44	1.0	300	98	5	254
A	99835	38	1.0	70	38	5	144
A	99836	40	1.0	48	24	5	130
A	99837	40	1.0	96	42	5	90
A	99838	32	1.2	178	76	5	264
A	99839	132	0.4	38	4	5	26
A	99840	1180	1.0	108	8	5	104
A	99841	2060	3.6	486	342	160	1660
A	99842	1120	58.0	44	1100	2480	31200
A	99843	454	7.0	52	34	5	334
A	99844	760	3.4	144	14	5	124
A	99845	396	2.0	50	28	5	40
A	99846	1100	10.8	100	90	5	110
A	99847	392	4.2	64	26	5	48

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CERTIFIED BY : *[Signature]*

50 BK 2P

ROSSBACHER LABORATORY LTD.

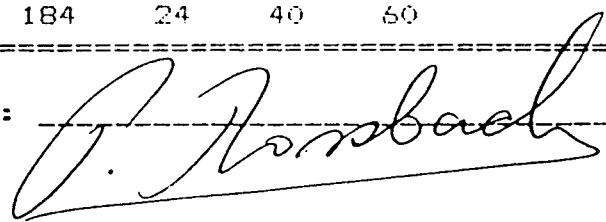
2225 S. SPRINGER AVENUE  
 BURNABY, B.C. V5B 3N1  
 TEL : (604) 299 - 6910

CERTIFICATE OF ANALYSIS

TO : NORANDA EXPLORATION CO. LTD.  
 1050 DAVIE STREET  
 VANCOUVER B.C.  
 PROJECT: 8703-036  
 TYPE OF ANALYSIS: GEOCHEMICAL

CERTIFICATE#: 87131  
 INVOICE#: 7531  
 DATE ENTERED: 87-03-25  
 FILE NAME: NOR87131  
 PAGE # : 1

PRE FIX	SAMPLE NAME	PPM Cu	PPM Ag	PPM Zn	PPM Pb	PPB Au	PPM As
A	73679	260	8.0	52	50	5	38
A	73680	324	2.2	44	10	5	18
A	73681	418	2.2	44	16	5	58
A	73682	480	3.8	50	38	5	38
A	73683	376	3.6	48	54	5	28
A	73684	258	0.6	58	6	5	16
A	73685	1060	3.6	66	34	5	26
A	73686	496	2.8	42	20	5	22
A	73687	500	2.0	60	28	5	24
A	73688	278	7.2	26	124	60	272
A	73689	2540	21.0	64	356	90	84
A	73690	880	5.0	74	76	5	30
A	73691	540	3.2	64	62	5	16
A	73692	1260	5.2	92	58	5	26
A	73693	870	6.0	62	82	5	36
A	73694	720	2.2	66	12	5	20
A	73695	820	10.8	72	138	5	26
A	73696	770	1.6	72	14	5	14
A	73697	590	2.2	48	26	5	42
A	73698	780	5.4	66	42	50	46
A	73699	2120	14.6	158	164	10	28
A	73700	660	5.8	60	52	5	122
A	78487	600	4.6	104	98	5	46
A	78488	378	3.2	50	32	5	34
A	78489	520	2.2	66	16	5	42
A	78490	446	1.4	56	78	5	40
A	78491	412	6.0	58	56	5	52
A	78492	466	4.2	54	82	5	24
A	78493	680	3.8	72	56	5	36
A	78494	320	2.0	54	22	5	46
A	93576	492	4.2	68	88	5	28
A	93577	438	3.8	92	72	5	34
A	93578	360	2.4	54	48	5	40
A	93579	520	3.0	62	40	5	50
A	93580	358	2.4	50	74	5	42
A	93581	190	0.2	78	4	5	30
A	93582	2200	2.0	146	100	50	580
A	93583	630	5.0	96	232	100	1020
A	93584	660	3.6	70	20	5	164
A	93585	3680	11.6	184	24	40	60

CERTIFIED BY : 

25  
Tustin 32.2

**ROSSBACHER LABORATORY LTD.**

2225 S. SPRINGER AVENUE  
BURNABY, B.C. V5B 3N1  
TEL : (604) 299 - 6910

**CERTIFICATE OF ANALYSIS**

TO : NORANDA EXPLORATION CO. LTD.  
1050 DAVIE STREET  
VANCOUVER B.C.

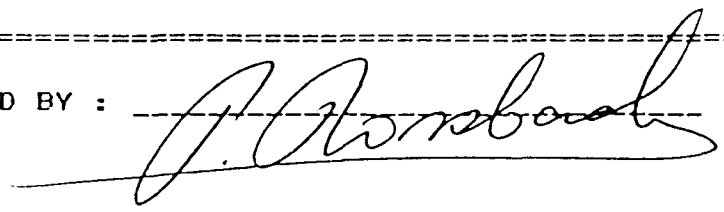
CERTIFICATE#: 87131  
INVOICE#: 7531  
DATE ENTERED: 87-03-25  
FILE NAME: NOR87131  
PAGE # : 2

PROJECT: 8703-036  
TYPE OF ANALYSIS: GEOCHEMICAL

PRE FIX	SAMPLE NAME	PPM Cu	PPM Ag	PPM Zn	PPM Pb	PPB Au	PPM As
A	93586	1040	7.4	166	110	5	76
A	93587	150	1.2	54	8	5	5000
A	93588	152	1.4	60	6	5	8200
A	93589	354	15.8	1520	1860	1640	9400

092105

CERTIFIED BY :



Bondar-Clegg & Company Ltd.  
 130 Pemberton Ave.  
 North Vancouver, B.C.  
 Canada V7P 2R5  
 Phone: (604) 985-0681  
 Fax: 04-352667



Geochemical  
 Lab Report

REPORT: 127-4022

Yukon General (HC)

PROJECT: 312 8706-037 PAGE 1

SAMPLE NUMBER	ELEMENT UNITS	Cu PPM	Pb PPM	Zn PPM	Ag PPM	As PPM	Au PPB
R2 R20257		17	24	72	0.1	12	<5
R2 R20258		15	20	42	<0.1	13	<5
R2 R20259		75	10	50	<0.1	19	<5
R2 R20260		7	12	25	<0.1	3	<5
R2 R20261		122	14	70	<0.4	2	<5
R2 R20262		27	16	58	<0.1	2	<5
R2 R20263		355	13	51	12.7	13	<5
R2 R20264		345	9	35	3.2	11	5
R2 R20265		18	3	17	<0.1	12	<5
R2 R93601		1050	23	54	3.2	65	540
R2 R93602		480	19	60	1.2	33	70
R2 R93603		25	9	170	<0.1	12	<5
R2 R93604		80	6	49	<0.1	3	<5
R2 R93605		280	10	15	<0.1	<2	15
R2 R93606		104	10	130	0.6	12	30
R2 R93607		131	7	30	<0.1	2	5
R2 R93608		103	9	30	<0.1	4	5
R2 R93609		94	7	52	<0.1	6	<5
R2 R93611		505	11	57	0.9	11	10
R2 R93612		9	41	8	0.5	>1000	860
R2 R93613		128	12	50	1.2	180	5
R2 R93614		17	10	960	<0.1	160	<5
R2 R93615		94	10	50	0.6	300	10

092105

NORANDA VANCOUVER LABORATORY

\*\*\*\*\*

PROPERTY/LOCATION: YUKON GENERAL

CODE : 8706-037

*27*  
*Asghar*

Project No. : 312                      Sheet: 1 of 5                      Date rec'd: JUN. 09  
 Material : SOIL & SILT              Geol.: H. C.                      Date compl: JUN. 24  
 Remarks :

*FILE*  
*T65C107*

Values in PPM, except where noted.

T. T. No.	SAMPLE No.						PPB
		Cu	Zn	Pb	Ag	As	Au
2	10400E-10400N	48	58	4	0.4	100	10
3	10387	18	56	6	0.2	20	10
4	10375	18	26	10	0.2	4	10
5	10362	26	36	6	0.2	4	10
6	10350	34	42	6	0.4	28	10
7	10337	10	38	6	0.2	8	10
8	10325	30	20	1	0.2	16	10
9	10312	98	34	2	0.2	92	10
10	10287	26	46	2	0.2	210	10
11	10262	52	54	4	0.4	36	10
12	10237	44	24	6	0.4	100	10
13	10400E-10212N	120	26	2	0.2	72	10
14	10450E-10400N	74	52	8	0.2	80	10
15	10387	20	12	1	0.4	1	10
16	10375	12	30	12	0.4	20	10
17	10362	26	50	6	0.2	48	10
18	10350	34	36	4	0.2	56	10
19	10337	36	34	4	0.2	56	10
20	10325	26	40	1	0.2	8	10
21	10312	42	64	2	0.2	32	10
22	10300	62	42	4	0.2	180	10
23	10287	78	50	2	0.2	220	10
24	10275	24	54	1	0.2	600	10
25	10262	52	52	1	0.2	430	10
26	10250	60	46	1	0.2	72	10
27	10237	98	52	2	0.2	60	10
28	10225	130	56	1	0.2	84	10
29	10212	370	44	1	0.2	76	10
30	10450E-10200N	120	52	1	0.2	140	10
31	9950E-10200N	20	24	6	0.4	12	10
32	10187	14	46	4	0.2	12	10
33	10175	12	96	10	0.2	44	10
34	10162	10	42	8	0.2	8	10
35	10150	16	56	10	0.6	48	10
36	10137	20	70	8	0.2	52	10
37	10125	16	66	6	0.2	32	10
38	10112	34	48	12	0.2	280	10
39	10100	32	30	4	0.2	40	10
40	10087	60	62	10	0.2	100	10
41	10075	44	70	12	0.2	88	20
42	10062	44	98	10	0.2	40	10
43	10050	70	140	16	0.4	140	10
44	9937	650	650	800	3.8	3900	70
45	10037	100	68	12	0.6	100	10
46	10025	130	170	66	1.4	660	10
47	10012	630	180	60	2.6	330	10
48	10000	2000	140	170	10.0	370	40
49	9950E-9987N	4300	130	130	14.0	260	50

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03/07 HC DP

T. T. No.	SAMPLE No.						PPB	8706-037 Pg. 2 of 5
		Cu	Zn	Pb	Ag	As	Au	
50	9950E-9975N	1700	100	140	19.0	240	100	
51	9962	1100	100	150	10.0	160	60	
52	9950	2600	190	200	11.0	1100	160	
53	9925	32	230	38	0.8	330	10	
54	9912	34	170	10	0.6	60	10	
55	9950E-9900N	130	260	140	0.8	340	40	
56	10000N-9750E	16	44	4	0.2	1	10	
57	9700	18	120	1	0.2	1	10	
58	9660	32	70	1	0.2	24	10	
59	9650	20	60	1	0.2	1	10	
60	9600	16	54	12	0.2	140	10	
61	9550	12	40	2	0.2	20	10	
62	9450	16	110	28	0.2	68	10	
63	10000N-9400E	14	38	4	0.2	8	10	
64	10200N-9750E	16	36	8	0.2	8	10	
65	9700	32	52	20	0.2	24	10	
66	9650	16	160	26	0.2	32	10	
67	9600	30	150	34	0.4	160	10	
68	9550	14	230	76	0.6	64	10	
69	10200N-9500E	12	160	26	0.2	8	10	
70	9600N-9800E	14	52	2	0.2	8	10	
71	9750	16	42	2	0.2	8	10	
72	9700	12	74	4	0.2	16	10	
73	9650	12	40	1	0.2	1	10	
74	9600	12	60	4	0.2	12	10	
-	9550	14	34	6	0.2	4	10	
75	9500	10	58	4	0.2	1	10	
77	9450	14	44	6	0.2	4	10	
78	9600N-9400E	18	84	4	0.2	1	10	
79	9800N-9750E	14	80	4	0.2	8	10	
80	9700	16	50	2	0.2	8	10	
81	9650	14	42	1	0.2	4	10	
82	9800N-9600E	16	70	2	0.2	8	10	
83	10400N-9800E	18	24	6	0.2	8	10	
84	9750	22	44	4	0.2	40	10	
85	9700	88	120	16	0.8	18000	10	
86	9650	12	56	4	0.2	60	10	
87	9600	16	160	16	0.2	64	10	
88	9550	16	440	34	0.6	68	10	
89	9500	12	200	22	0.8	36	10	
90	10400N-9450E	10	50	4	0.2	28	10	
91	10400E-9825N	34	310	110	0.6	570	10	
92	9800	130	120	54	1.0	120	10	
93	9775	56	50	4	0.2	84	10	
94	9750	42	38	2	0.2	68	10	
95	9725	40	60	2	0.2	80	60	
96	9700	44	84	1	0.2	40	10	
97	10400E-9675N	42	56	1	0.2	20	10	
98	10300E-9825N	16	30	1	0.2	8	10	
99	9800	50	56	1	0.2	48	10	
100	CHECK NL-5	24	70	70	1.4	60	-	
101	9775	20	80	4	0.2	64	10	
102	9750	80	72	2	0.2	52	10	
103	9725	130	130	10	0.2	40	10	
104	10300E-9700N	36	64	2	0.2	32	10	
105	9800E-10187N	14	28	4	0.2	20	10	
106	9800E-101625N	8	34	4	0.2	12	10	

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T. T. No.	SAMPLE No.	Cu	Zn	Pb	Ag	As	PPB Au	8706-037 Pg. 3 of 5
7	9800E-10137N	14	46	2	0.2	12	10	
108	10112	12	44	4	0.2	12	10	
109	10087	18	50	6	0.2	20	10	
110	10062	10	48	4	0.2	44	10	
111	10012	12	46	6	0.2	4	10	
112	9987	14	48	4	0.2	12	10	
113	9962	18	54	4	0.2	16	10	
114	9937	40	36	8	1.2	4	10	
115	9800E-9912N	54	28	2	0.4	110	10	
116	9900E-10200N	12	32	6	0.2	8	10	
117	10187	52	50	4	0.2	8	10	
118	10175	10	30	14	0.2	32	10	
119	10162	12	48	10	0.2	84	20	
120	10150	20	42	4	0.2	48	10	
121	10062	140	120	170	4.4	17000	30	
122	10050	32	200	4600	120.0	9000	670	
123	10037	18	130	60	1.8	15000	10	
124	10025	6	120	16	0.6	32	10	
125	10012	26	70	10	0.2	68	10	
126	10000	120	68	10	0.4	64	10	
127	9975	20	62	6	0.2	24	10	
128	9925	34	34	6	0.2	24	10	
129	9912	8	40	4	0.2	16	10	
130	9900E-9900N	10	44	10	0.4	12	10	
131	10350E-10387N	200	62	14	0.4	92	10	
132	10375	70	60	4	0.2	48	10	
133	10325	26	38	2	0.2	64	10	
134	10312	32	16	1	0.2	64	10	
135	10300	26	52	4	0.2	20	10	
136	10287	110	56	1	0.2	310	10	
137	10625	100	98	1	0.2	310	10	
138	10375	110	70	1	0.8	11000	10	
139	10225	24	64	2	0.2	1300	10	
140	10125	18	14	1	0.2	16	10	
141	10350E-10200N	20	28	1	0.2	44	10	
142	9850E-10200N	12	34	4	0.2	40	10	
143	10187	12	32	2	0.2	72	10	
144	10175	14	40	2	0.2	140	10	
145	10162	38	58	8	0.2	4800	10	
146	10150	8	36	2	0.2	60	10	
147	10137	8	42	4	0.2	20	10	
148	10125	8	54	2	0.2	28	10	
149	10112	56	76	2	0.4	68	10	
2	10100	8	46	1	0.2	8	10	
3	10087	12	56	2	0.2	44	10	
4	10075	12	46	1	0.2	12	10	
5	10062	16	62	4	0.4	20	10	
6	10050	14	60	4	0.4	4	10	
7	10037	14	150	4	0.6	400	250	
8	10025	36	66	1	0.2	6	10	
9	9987	12	36	1	0.2	1	40	
10	9975	8	32	4	0.2	1	10	
11	9962	16	54	2	0.2	8	10	
12	9950	16	52	2	0.2	12	10	
13	9937	12	46	2	0.2	40	10	
14	9912	8	46	4	0.2	16	10	
15	9850E-9900N	8	34	1	0.2	100	10	

092105

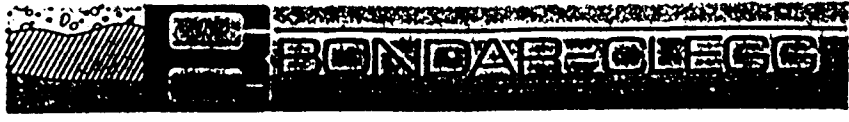
T. T. No.	SAMPLE No.	Cu	Zn	Pb	Ag	As	PPB	8706-037
							Au	Pg. 4 of 5
15	10150E-10150N	34	38	4	0.2	20	10	
17	10137	120	46	4	0.6	120	10	
18	10112	600	62	12	1.8	52	10	
19	10100	710	56	12	4.4	120	10	
20	10087	850	78	140	23.0	80	70	
21	10075	140	40	6	1.8	52	10	
22	10062	350	40	48	7.0	120	10	
23	10050	2200	66	230	28.0	36	30	
24	10037	410	50	6	3.8	56	10	
25	10025	520	56	34	2.4	270	10	
26	10150E-10012N	330	44	1	11.0	24	20	
27	10000E-10187N	12	62	2	0.4	4	10	
28	10162	64	40	2	0.8	52	10	
29	10137	12	38	1	0.2	8	10	
30	10112	32	36	4	0.2	16	10	
31	10087	16	52	10	0.6	1	10	
32	10062	24	46	2	0.2	8	10	
33	10037	210	72	20	1.0	40	10	
34	10012	300	66	130	11.0	330	30	
35	9987	350	60	18	3.4	60	10	
36	9962	190	68	74	6.0	200	20	
37	9937	590	330	1050	13.0	930	30	
38	10000E-9912N	52	66	4	0.4	82	10	
39	10050E-10000N	620	60	80	7.0	160	10	
40	9987	210	46	32	2.6	12	10	
41	9975	230	60	46	2.6	32	10	
42	9962	130	120	32	1.6	48	10	
43	9950	92	110	50	2.0	80	10	
44	9937	64	140	16	1.4	100	10	
45	9925	150	90	8	1.2	40	10	
46	9912	18	72	14	0.2	64	10	
47	10050E-9900N	14	150	16	0.2	44	10	
48	10150E-10000N	210	48	12	1.8	100	10	
49	9987	1050	72	24	6.6	60	50	
50	9975	280	70	10	3.4	270	10	
51	9962	120	60	1	0.8	40	10	
52	9950	64	46	4	0.6	32	10	
53	9937	190	44	48	2.8	200	10	
54	9925	34	42	4	0.8	28	10	
55	9912	50	48	2	0.4	32	10	
56	10150E-9900N	130	40	2	0.4	32	10	
57	10100E-10137N	26	32	4	0.2	40	10	
58	10112	68	64	4	0.2	28	10	
59	10087	44	48	12	0.4	140	10	
60	10062	62	54	14	0.2	210	20	
61	10037	350	56	40	4.5	320	10	
62	10012	360	56	4	8.0	200	10	
63	9987	130	50	20	1.8	120	10	
64	9962	250	64	10	2.2	56	10	
65	9937	180	58	12	1.4	12	10	
66	10100E-9912N	54	160	1	0.4	20	10	
67	10050E-10150N	22	58	12	0.2	80	10	
68	10137	38	42	2	0.2	40	10	
69	10125	16	48	4	0.4	16	10	
70	10112	36	38	4	0.2	52	10	
71	10100	34	76	26	0.4	44	10	
72	10050E-10087N	84	92	6	0.6	44	10	

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T. T. No.	SAMPLE No.	Cu	Zn	Pb	Ag	As	PPB Au	8706-037 Pg. 5 of 5
73	10050E-10075N	120	66	2	0.4	48	10	
74	10062	120	66	10	0.4	48	10	
75	10050	20	28	1	0.2	4	10	
76	10037	150	130	8	1.4	68	10	
77	10025	410	58	140	11.0	56	90	
78	10050E-10012N	650	64	72	9.8	24	10	
79	SILT T 93610	92	60	1	0.4	84	10	

092105

Bondar-Chang & Company Ltd.  
130 Pemberton Ave.  
North Vancouver, B.C.,  
Canada V7P 2R3  
Phone: (604) 925-0881  
Telex: 04-33367



Certificate  
of Analysis

DDH 87-1

8705-042

REPORT: 427-3060

Testin (WR)

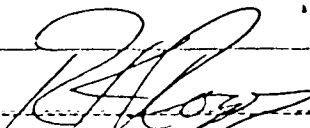
PROJECT: 322

PAGE 1

SAMPLE NUMBER	ELEMENT UNITS	Au GRT	Ag GRT
02 25426		<0.07	<0.7
02 25427		0.07	<0.7
02 25428		<0.07	<0.7
02 25429		<0.07	<0.7
02 25430		0.27	<0.7
02 25431		<0.07	<0.7
02 25432		<0.07	<0.7
02 25433		<0.07	<0.7
02 25434		0.14	<0.7
02 25435		0.07	0.7
02 25436		<0.07	<0.7
02 25437		<0.07	<0.7
02 25438		<0.07	<0.7
02 25439		<0.07	<0.7
02 25440		0.34	2.7
02 25441		0.07	0.7
02 25442		<0.07	<0.7
02 25443		<0.07	<0.7
02 25444		0.07	<0.7
02 25445		<0.07	<0.7

092105

2515187 Sample No

  
Registered Assayer, Province of British Columbia

Clegg & Company Ltd.  
 4700 Main St.  
 Vancouver, B.C.  
 Canada V7P 2R3  
 Phone: (604) 963-0881  
 Telex: 04-332667



Geochemical  
 Lab Report

DDH 87-1

REPORT: 127-3060

PROJECT: 322

PAGE 1

SAMPLE NUMBER	ELEMENT UNITS	Cu PPM	Pb PPM	Zn PPM	As PPM
02 25426		191	5	80	>1000
02 25427		173	5	63	>1000
02 25428		100	5	51	>1000
02 25429		106	3	78	85
02 25430		70	4	26	>1000
02 25431		70	3	52	100
02 25432		93	4	69	90
02 25433		95	3	58	>1000
02 25434		90	13	31	>1000
02 25435		300	25	59	>1000
02 25436		147	14	57	110
02 25437		175	4	92	15
02 25438		138	8	42	185
02 25439		113	10	49	48
02 25440		330	450	1000	>1000
02 25441		210	34	64	280
02 25442		96	7	61	44
02 25443		147	4	51	12
02 25444		160	6	49	45
02 25445		163	5	43	18

BONDAREV LEGG

00H 87-2

REPORT: 127-3105

PROJECT: 322

PAGE 1

SAMPLE NUMBER	ELEMENT UNITS	Cu PPM	Pb PPM	Zn PPM	Ag PPM	As PPM	Au PPB
D2 20251		2900	176	140	19.0	35	85
D2 20252		1100	290	92	20.0	135	85
D2 20253		3700	75	135	11.0	185	40
D2 20254		1200	101	105	8.1	13	10
D2 20255		975	190	73	7.0	15	10
D2 20256		2350	187	165	12.0	22	110
D2 25446		1200	140	95	5.2	98	25
D2 25447		690	900	180	12.0	5	10
D2 25448		945	72	63	5.8	5	10
D2 25449		1100	91	69	7.4	120	40
D2 25450		1250	80	83	6.0	43	65

092105

APPENDIX 2

Rock Description

092105

NORANDA EXPLORATION COMPANY, LIMITED

N.T.S. \_\_\_\_\_

PROPERTY TES

DATE June/87

ROCK SAMPLE REPORT

PROJECT TES 322

SAMPLE NO.	LOCATION & DESCRIPTION	% SULPHIDES	TYPE	WIDTH	G	A	G	A	G	A	G	A	G	A	SAMPLED BY
					Cu	Pb	Zn	Ag	As	Au					
20257	Andesitic (?) Tuff -weakly clay altered pyrite - 2%	2%	grab		17	24	72	0.1	12	<5					
20258	RHYO - DACITE (?) -siliceous pyrite 1-2%	1-2%	"		15	20	42	<0.1	13	<5					
20259	BRECCIA -qtz-calcite cemented basic tuff		"		75	10	50	<0.1	19	<5					
20260	RHYOLITE near 9800N, 9750E				7	12	25	<0.1	3	<5					
20261	ANDESITE(?) -near 9800N, 9800E -disseminated & bleby pyrite				122	14	70	0.4	2	<5					
20262	LAPILLI TUFF -weakly silicified & limonitic				27	16	58	<0.1	2	<5					
20263	10,000N, 10,125E -basic tuff pyrite 5%	5%	chip	1m	355	13	51	2.7	13	<5					
20264	10,000N, 10160E, as 20263	"	"	"	345	9	35	3.2	11	5					
20265	glacial erratic quartz cemented breccia		grab float		18	3	17	0.1	12	<5					
R93601	10400E. 9810N -silicified tuff 1% Py Po		Rx		1050	23	54	3.2	65	540					
93602	Altered tuff				480	19	60	1.2	33	70					
93603	same as 602				25	91	170	<0.1	12	5					
93604	Mafic in tuff stringers of Py, Po				80	6	49	<0.1	3	5					
93605	Tuff in intercalated chert				280	10	15	<0.1	<2	15					
93606	10700E, 9875N -chert in diss. Py & stringers of Py				104	10	130	0.6	12	30					
93607	Calcite veining in sulfides in mafic tuff				131	7	30	<0.1	2	5					
93608	Brecciated tuff														
93609	fine grained tuff 1% Py, Po				94	7	52	<0.1	6	5					
93611	altered tuff 2-5% Py ± Po 10050E, 9925N		o/c		505	11	57	0.9	11	10					
93612	Qtz rich with vein of fine grained sulfides		float		9	41	8	0.5	>1000	860					

092105



APPENDIX 3

Drill Logs

002105

NORANDA EXPLORATION COMPANY LTD.

Date Colored May 8/87		Date Completed May 17/87		Core Size BQ		DIP TESTS				PROPERTY			PROJECT No. 322		N.T.S. No.	
FIELD CO-ORDINATES						DEPTH	BEARING		ANGLE		SURVEYED CO-ORDINATES					
RECORDED		CORRECTED		RECORDED			CORRECTED		TCS		TCS		TCS		TCS	
Lat.	Elev.	Dip				Lat.	Elev.	Dip	MOLE No.							
9,997N	3100	-50°							87-1							
Dep.	Length	Bearing				Dep.	Length	Bearing								
9,900E	93.9m.	353°														
From	To	Recovery	Description			Structure	% Sulph.	Est. Grade	SAMPLE No.	Width	ASSAYS <i>10m</i>					
			Casing								Au	Ag	Cu	Pb	Zn	A.
0	8.6		Overburden & highly fractured C- horizon.								(gnt)	(gnt)				
8.6	10	100	1a) <u>Fine grained crystal tuff</u> dark green highly fractured, bleby pyrite on fractures minor disseminated pyrite; silicified			highly fractured	<1%									
10	17.0	"	1b) <u>Fine grain tuff</u> green & maroon splotchy fragmented texture, minor quartz veinlets, bleby pyrite & pyrrhotite: silicified			moderately fractured 60° to core angle (CA)	1%									
17.0	17.8	"	2) <u>Medium grained tuff</u> dark green minor quartz veinlets, pervassive euhedral pyrite			moderate fracture	<1%									
17.8	19.5	"	1a) <u>Fine grained tuff</u> pervassive pyrite			highly fractured	<1%									
19.5	20.8	"	2) <u>Medium gr. tuff</u> gradational contact maroon and green, bleby pyrite in elongate zones 1 - 1.5cm. in size			moderately fractured	1%									
20.8	23.2	"	1a) <u>Fine gr. tuff</u> dark green increasing quartz veinlets, 1% bleby euhedral pyrite			CA Bdg. 75°	1%									
23.2	24.0	"	1b) <u>Coarse gr. tuff</u> maroon and green, micro quartz veinlets			qtz. veinlets CA fractures 10°	1%	25437	1.0 (23-24m.)		0.07	0.7	175	4	92	15

DRILL LOG - 81

Date May 87 Logged By H. Copland

092105

NORANDA EXPLORATION COMPANY LTD.

Date Collared		Date Completed		Core Size		DIP TESTS				PROPERTY TES.		PROJECT No.		N.T.S. No.				
FIELD CO-ORDINATES						DEPTH	BEARING		ANGLE		SURVEYED CO-ORDINATES						Sheet 2 of 5	
Lat	Elev	Dip					RECORDED	CORRECTED	RECORDED	CORRECTED	Lat	Elev	Dip	HOLE No.				
Dep	Length	Bearing								Dep	Length	Bearing	87-1					
From	To	Recovery	Description			Structure	% Sulph.	Est. Grade	SAMPLE No.	Width	ASSAYS (ppm)							
											As (g/t)	Ag (g/t)	Cu	Pb	Zn	As		
24.0	27.7	100	3) Fine grain grey tuff silicified numerous quartz veinlets, stringer & disseminated pyrite, arsenopyrite, minor galena; bleby sulphides in 10cm. qtz. breccia zones			poorly fractured	2.5%		25426	1.5m.	0.07	0.7	91	5	80	710		
			25427	1.2m.	0.07				0.7	173	5	63	710					
			25428	1.0m.	0.07				0.7	100	5	51	710					
27.7	28.9	"	2a) Medium gr. tuff maroon - green approaching Lapilli tuff, subangular clasts to 5mm. in size, chlorite on fracture surfaces.			poorly fractured	<1%		25429	1.2m.	0.07	0.7	106	3	78	810		
28.9	30.4	"	3) Fine gr. grey tuff includes 18cm. wide qtz. breccia @29.3 ; bleby & pervassive pyrite, arsenopyrite, scorodite (to 5% over short sections)			poorly fractured	2-5%		25430	1.5m.	0.07	0.7	70	4	26	710		
30.4	31.3	"	3) Fine gr. grey tuff decreasing sulfides, some lithic clasts to 1cm. in size of dark grey, fine grain material to 1cm. in size			"	1%		25431	0.9m.	0.07	0.7	70	3	52	100		
31.3	34.0	"	3) Fine gr. grey tuff sulphides increasing as per 24.0 - 27.7 section dissem. arsenopyrite, pyrite + galena			poorly fractured CA fractures 70°	2%		25432	0.9m. (31.3-32.2)	0.07	0.7	93	4	69	910		
			25433	2.0m. (32.2-34.2)	0.07				0.7	95	3	58	710					
34.0	35.0	"	3) Fine gr. grey tuff well mineralized section 70cm. wide quartz breccia @34.2-34.9 & disseminated pyrite-arsenopyrite-galena (10% in breccia)			poorly fractured CA-60°	5%		25434	0.8m. (34.2-35.0)	0.14	0.7	90	13	31	710		
35.0	35.7	"	3) Fine gr. grey tuff not intensely qtz. brecciated as above minor disseminated py. & aspy.			well fractured	1%		25435	0.7m.	0.07	0.7	300	25	59	710		
35.7	37.4	"	2) Med. gr. tuff maroon - green, gradational contact above, minor qtz. veinlets & qtz-calcite			contact CA 50°	<1%		25436	1.7m.	0.07	0.7	147	14	57	110		

DRILL LOG - 81

Date \_\_\_\_\_ Logged By \_\_\_\_\_

092105

NORANDA EXPLORATION COMPANY LTD.

Date Colored		Date Completed		Core Size		DIP TESTS				PROPERTY TES.			PROJECT No.		N.T.S. No.			
FIELD CO-ORDINATES						DEPTH	BEARING		ANGLE		SURVEYED CO-ORDINATES						Sheet 3 of 5	
Lat	Elev	Dip					RECORDED	CORRECTED	RECORDED	CORRECTED	Lat.	Elev.	Dip	HOLE No.				
Dep	Length	Bearing								Dep.	Length	Bearing	87.1					
From	To	Recovery	Description			Structure	% Sulph.	Est. Grade	SAMPLE No.	Width	ASSAYS							
											Au(gnt)	Ag(gnt)	Cu	As	Zn	Pb		
37.4	37.8	100	1b) Fine gr. tuff cherty maroon & green tuff dissem. pyrite & minor quartz veinlets			veinlets CA 40°	1%		25438	0.4m.	0.07	0.7	138	8	92	18		
37.8	39.6	"	2) Med. gr. tuff maroon - green approaching Lapilla tuff, micro qtz. veinlets, dissem. py. 1% on fractures				1%		25439	1.8m.	0.07	0.7	113	10	93	42		
39.6	40.4	"	3) Fine gr. grey tuff coarse pyrite stringers of pyrite, galena & sphalerite minor			contact @ CA 60°	2%		25440	1.2m. (39.6-40.8)	0.34	2.7	330	450	1000	>1000		
40.4	40.8	"	Fault - shear zone qtz. - calcite filled gouge zone, intensely fractured															
40.8	42.0	"	1b) Fine gr. tuff containing stringers of grey quartz with pyrite & minor pyrrhotite, sulphides to 10% over 10cm.			well fractured @ 41.6m.	2%		25441	1.2m.	0.07	0.7	210	34	64	28		
42.0	43.1	"	2) Med. gr. tuff maroon - green minor bleby & diss. pyrite				1%		25442	1.0 m. (42.0-43.0)	0.07	0.7	96	7	61	94		
43.1	45.6	"	1b) Fine gr. tuff maroon - green minor disseminated pyrite				1%											
45.6	46.9	"	2) Med. gr. tuff maroon - green minor pyrite stringers			poorly fractured	1%											

DRILL LOG - 81

Date \_\_\_\_\_ Logged By \_\_\_\_\_

100106

NORANDA EXPLORATION COMPANY LTD.

Date Collared		Date Completed		Core Size		DIP TESTS				PROPERTY Tes.		PROJECT No.		N.T.S. No.			
FIELD CO-ORDINATES				DEPTH	BEARING		ANGLE		SURVEYED CO-ORDINATES				Sheet 4 of 5				
Lat.	Elev.	Dip			RECORDED	CORRECTED	RECORDED	CORRECTED	Lat.	Elev.	Dip	HOLE No.					
Dep.	Length	Bearing						Dep.	Length	Bearing	87-1						
From	To	Recovery	Description				Structure	% Sulph.	Est. Grade	SAMPLE No.	Width	ASSAYS					
												Au	Ag	Cu	Pb	Zn	As
46.9	49.5	100	1b) Fine gr. tuff	cherty maroon -green			poorly fractured	---									
49.5	53.0	"	2) Med gr. tuff	minor clastic sections: subangular maroon fragments 10-20% over 2-3cm. section, wispy quartz crystals			"	---									
53.0	54.0	"	4) Coarse gr. lithic tuff	green - maroon, sharp but uneven lower contact, fragments up to 1.5cm. in size 5% of rx. in upper section			CA contact 70° (upper)	---									
54.0	56.6	"	Med Gr. tuff	minor quartz veinlets & disseminated & bleby sections			poorly fractured	<1%									
56.6	62.9	"	1b) Fine gr. tuff	minor quartz veinlets, minor disseminated pyrite coarser grained section 59.2 - 60.5			poorly fractured	<1%									
62.9	64.3	"	2) Med gr. tuff	maroon - green minor quartz veinlets				1%									
64.3	75.0	"	1b) Fine gr. tuff	fine grained maroon-green tuff, stringer py. & increasing pyrrhotite, minor epidote on fracture surfaces			gauge zone @ 68.4-68.6	<1%									
75.0	75.3	"	Sheared zone	clay-calcite-quartz gauge zone			intensely fractured	---		25443	2.0m. (74.4-76.4)	0.07	0.7	1974	511		

DRILL LOG - 81

Date \_\_\_\_\_ Logged By \_\_\_\_\_

092105

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					
Lat		Elev		Dip			RECORDED	CORRECTED	RECORDED	CORRECTED	Tes.		Sheet 5 of 5		HOLE No.	
Dep		Length		Bearing						Dep.		Length		Bearing		
From	To	Recovery	Description	Structure	% Sulph.	Est. Grade	SAMPLE No.	Width	ASSAYS							
									Ag	Fe	Cu	Pb	Zn	As		
75.3	76.4	100	1b) Fine grained tuff maroon - green minor coarse section & minor calcite - clay gouge	moderately fractured	---											
76.4	78.1	"	Fault clay - calcite gouge zone	intensely fractured	---		25444	1.7	0.07	0.7	160	6	49	45		
78.1	93.9	90%	2) Med gr tuff maroon - green minor fine gr. sections, minor stringers of pyrite & pyrrhotite clay gouge @ 85.5 (over 10cm.)	contact- CA 65° @83.0m. moderate fracture			25445	1.0 (78.1-79.1)	0.07	0.7	163	5	43	15		

DRILL LOG - 81

Date \_\_\_\_\_ Logged By \_\_\_\_\_

092105

NORANDA EXPLORATION COMPANY LTD.

Date Collared May 19/87		Date Completed May 20/87		Core Size BO		DIP TESTS				PROPERTY		PROJECT No. 322		N.T.S. No.					
FIELD CO-ORDINATES				DEPTH	BEARING		ANGLE		SURVEYED CO-ORDINATES				Sheet 1 of 3						
Lat	Elev.	Dip	Dep		RECORDED	CORRECTED	RECORDED	CORRECTED	Lat.	Elev.	Dip	Dep.	Length	Bearing	HOLE No.				
9967N	3250'	-50°	10,007E												87-2				
Length	86.0m.		Bearing	320°															
From	To	Recovery	Description				Structure	% Sulph.	Est. Grade	SAMPLE No.	Width	ASSAYS							
0	2.2	---	Casing overburden and broken C-horizon					---					A <sub>1</sub>	A <sub>9</sub>	C <sub>6</sub>	P <sub>6</sub>	Z <sub>1</sub>	A <sub>1</sub>	
2.2	3.2	100	2) oxidized zone coarse grained green crystal tuff, limonitic matrix & intense limonite on fracture surfaces, minor quartz - sulphite brx				moderate fracturing	1%		25446	2.2-3.6 (1.4m.)	25	5.2	120	140	95	94		
3.2	3.6	"	2) Med. grained tuff gradational contact very minor disseminated pyrite				poor moderate fracturing												
3.6	4.6	"	1b) Coarse grained tuff green, quartz-sulphide breccia zones, 1-10cm. sections pyrite stringers & blebs, sulphides to 40% over 10cm. section				poorly fractured	2%		25447	1.0m.	10	12.0	630	920	180	5		
4.6	5.6	"	2) Med. grained tuff grey-green minor qtz.-sulphide brx zones @4.9m. coarse grained qtz. and feldspar crystals through breccia					1%											
5.6	8.8	"	2) Med. grained tuff grey-green irregular quartz - pyrite - pyrrhotite zones 1-10cm. in size, density 1 per 10cm., minor chlorite & clayalt on fractures				breccia orientation 40° to CA	3%		25448	7.9-8.8 0.9m.	10	5.8	945	72	63	5		
8.8	9.3	"	3) Fine gr. grey tuff disseminated pyrite 1 - 2%, minor stringers				CA bedding @ 9.2 metres 35°												
9.3	11.3	80%	2) Med. gr. tuff grey - green, qtz. - breccia & sulphide zones pyrite & Pyrrhotite to 25% over 10cm. breccia sections																

DRILL LOG - 81

Date May 87 Logged By H.C.

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 3			
Lat	Elev	Dip			RECORDED	CORRECTED	RECORDED	CORRECTED	Lat.	Elev.	Dip	MOLE No.				
Dep	Length	Bearing						Dep.	Length	Bearing	87-2					
From	To	Recovery	Description	Structure	% Sulph.	Est. Grade	SAMPLE No.	Width	ASSAYS							
									Au (ppb)	Ag (ppm)	Cu (%)	Pb (%)	Zn (%)	Al (%)		
11.3	12.1	100	3) Fine gr. grey tuff fresh looking minor quartz veinlets, stringer pyrite & minor pervasive	poorly fractured	1-2											
12.1	17.3	50%	2) Med. gr. tuff qtz - sulfide breccia-10% of section, bleby vuggy pyrite, minor lithic clasts in lower section	moderately fractured	2-5%		25449	12.7-13.5 (0.8m.)	40	7.4	1100	91	69	12		
17.3	19.9	100	1b) coarse gr. tuff 2 - 10cm. wide qtz breccia with pyrite, pyrrhotite chalcopyrite to 30% over short sections	poorly fractured 1-4 fractures per metre	2-5%		25450	18.5-19.9 (1.4m.)	65	6.0	1250	80	83	4		
19.9	34.7	"	2) Med. gr. tuff consistent zone of quartz breccia with pyrrhotite increasing over pyrite & 1-2% chalcopyrite, breccia zones 1-10cm. wide, minor galena	moderate fractures	5%		20251	24.6-26.4 (1.8cm.)	85	19.0	2300	176	190	35		
34.7	46.5	"	2) Med. gr. tuff dark green disseminated pyrite, pyrrhotite 2-3%, increasing quartz veinlets	poorly fractured CA 50°	3%											
46.5	49.2	"	4) Lappill tuff fine gr. grey-green, silicified, subangular green clasts <5mm., approx. 5% of rx disseminated py. & pyrrhotite	poorly fractured	3%											
49.2	58.5	"	2) Med. gr. tuff dark green quartz breccia zones to 1.2m. wide (49.2-50.4) pyrite, pyrrhotite, chalcopyrite	contact CA 65°	5%		20252 20253	49.2-50.4 (1.2m.) 53.9-54.5 (0.6m.)	85 40	20.0 11.0	1100 3200	240 75	92 135	13 16		
58.5	65.3		2) Med. gr. tuff green - maroon disseminated & bleby pyrite, pyrrhotite chalcopyrite 1-2%, chlorite on fracture surfaces, minor quartz stringers	fractured @61.7 & 63.5	1-2%											

DRILL LOG - 81

Date \_\_\_\_\_ Logged By \_\_\_\_\_

200105

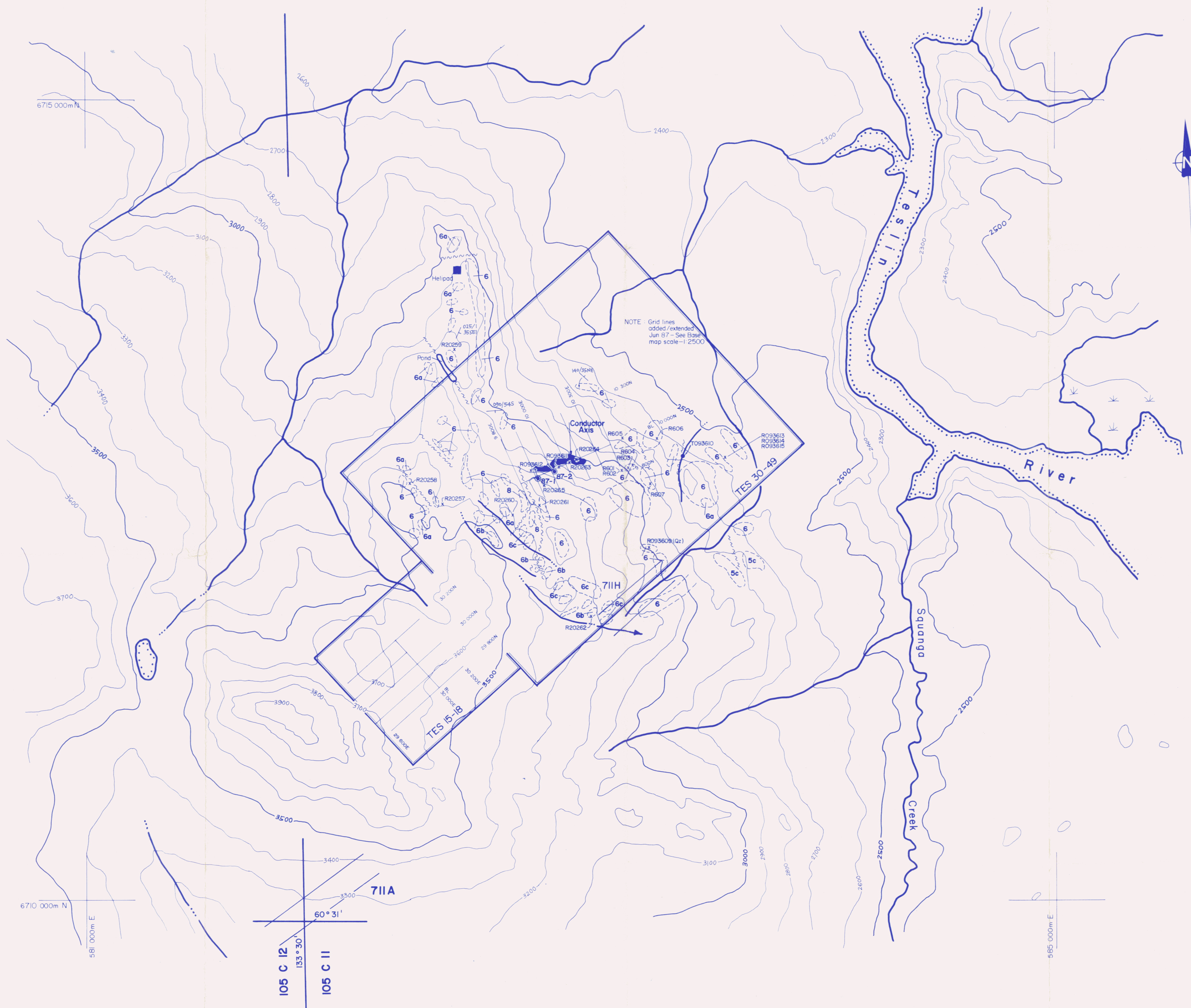
NORANDA EXPLORATION COMPANY LTD.

Date Collared		Date Completed		Core Size		DIP TESTS				PROPERTY			PROJECT No.		N.T.S. No.		
FIELD CO-ORDINATES						DEPTH	BEARING		ANGLE		SURVEYED CO-ORDINATES						
Lot		Elev		Dip			RECORDED	CORRECTED	RECORDED	CORRECTED	Lot		Elev		Dip		HOLE No.
Dep		Length		Bearing						Dep.		Length		Bearing		87-2	
From	To	Recovery	Description			Structure		% Sulph.	Est. Grade	SAMPLE No.	Width	ASSAYS					
												Ag (wt)	Ag (cm)	Cu	Pb	Zn	As
65.3	75.3	100	2) Med. gr. tuff with quartz-pyrite - pyrrhotite - chalcopyrite breccia zones, mod. chlorite on fracture surfaces			poorly fractured		5%		20254	68.6-67.2 (1.4m.)	10	8.1	1200	101	105	13
										20255	72.9-74.1 (1.2m.)	10	7.0	875	190	73	15
75.3	76.4	"	4) Lapilli tuff fine gr. grey as section 46.5 - 49.2 disseminated py - po					2%									
76.4	83.2	"	2) Med. gr. tuff with typical quartz - py po - cpy zones po > py generally			poorly fractured		2% to 5%									
83.2	86.0	"	2) Med. gr. tuff minor pyrite stringers limonite (weah) and moderate chlorite on fracture surfaces			poorly fractured		1%									

DRILL LOG - 81

Date \_\_\_\_\_ Logged By \_\_\_\_\_

092105



NOTE: Grid lines added/extended Jun 87 - See Base map scale=1:2500

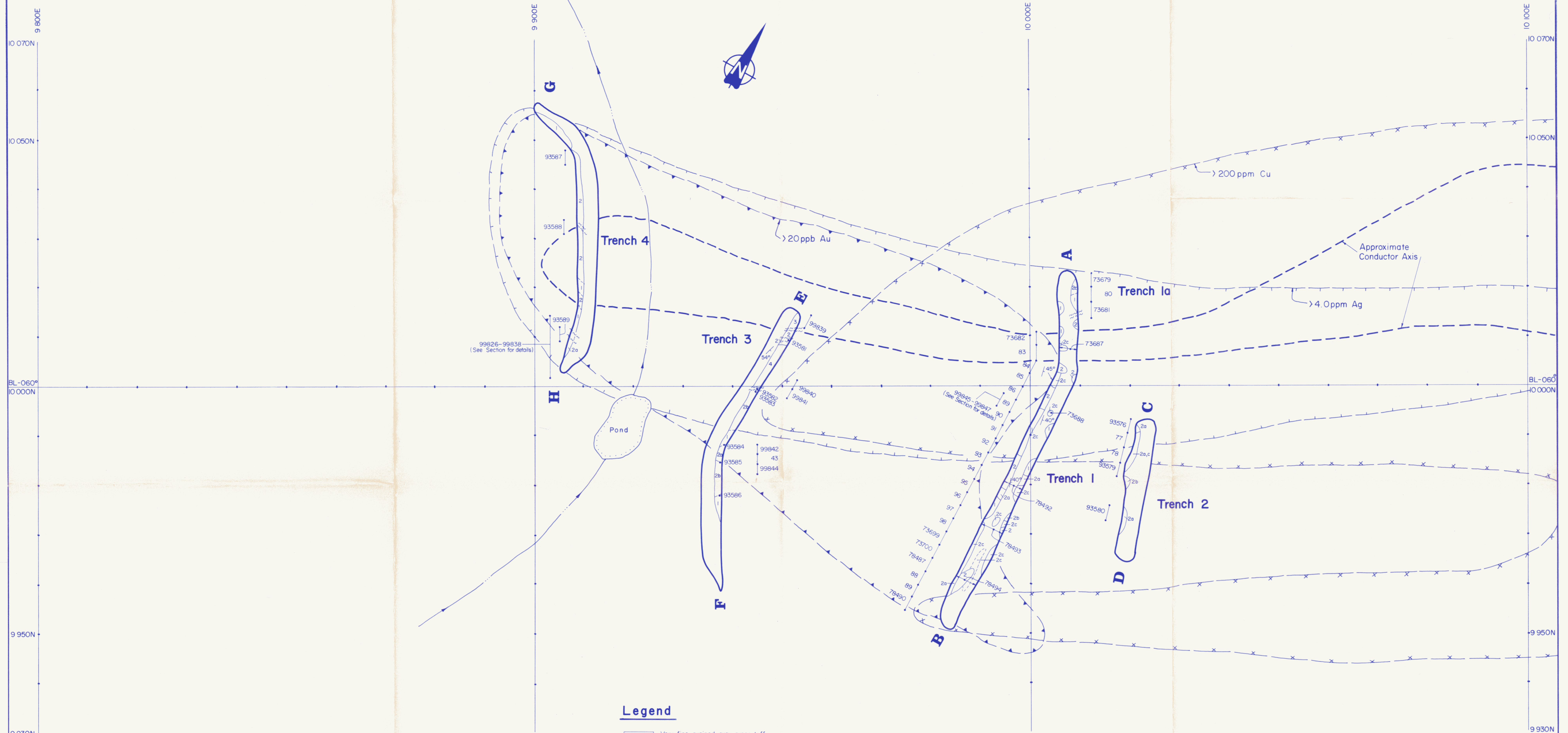
**Legend**

- TRIASSIC ?
- 8 Acid volcanics ; pyroclastics , tuffs , breccias , flows.
  - 6 Basic volcanics , agglomerates , pillow lavas and tuffs.
  - 6a Feldspar porphyritic.
  - 6b Lapilli tuff and tuff breccia.
  - 6c Feldspar - hornblende porphyritic.
  - 5c Argillite , lesser tuffs and siltstone.
- Outcrop
  - Fault
  - Bedding
  - x Rock/Talus fine sample location & no.
  - DDH Location & no.

REVISED	<b>TESLIN ( TES Claims )</b>	
	<b>Geology</b>	
PROJ. No. 22	SURVEY BY HC	DATE JUN 87
N.T.S. 105 C 11 / 12	DRAWN BY AI	SCALE 1 : 10,000
DWG No.	<b>NORANDA EXPLORATION</b> OFFICE Whitehorse	



Fig.: 3



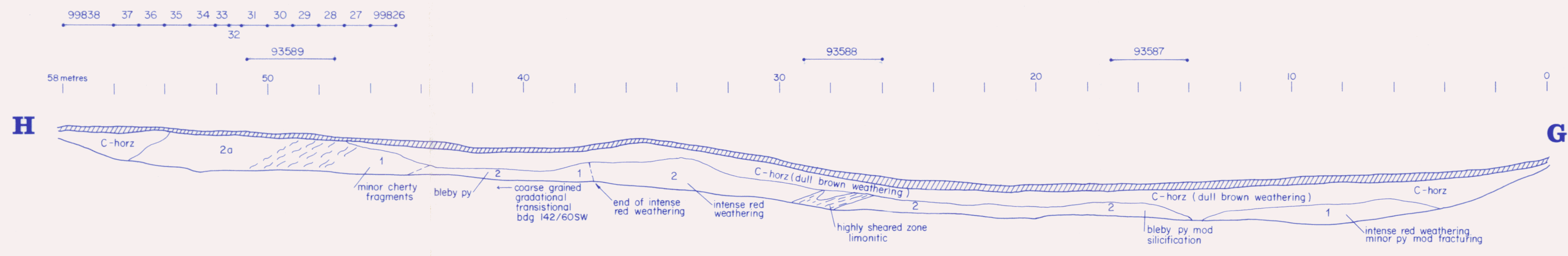
**Legend**

- 1 Very fine grained grey green tuff.
- 1a Weakly clay altered ± silica.
- 2 Medium grained grey tuff.
- 2a Weakly clay altered ± silica.
- 2b Moderate clay & silica alteration. Limonite on fracture surfaces.
- 2c Intensely clay silica alteration. Limonitic rubble, coarse quartz pods.
- 3 Fine grained feldspar porphyritic tuff, weak silicification.
- 4 Dark green chert, local tuffaceous zones.

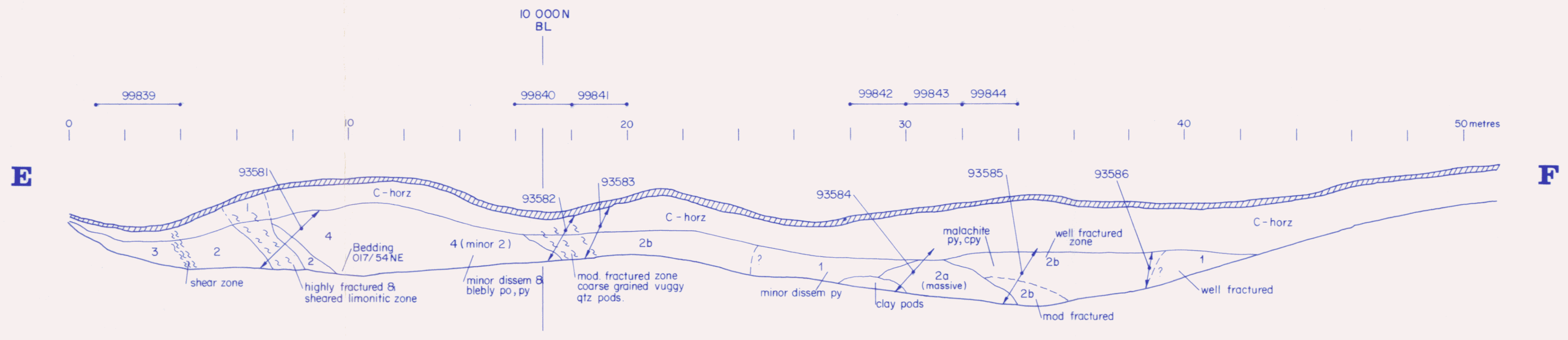
REVISED	<b>TESLIN (TES 30-35 Claims)</b>	
	AEM Anomaly 75IE	
	<b>Trench Location Plan</b>	
	092105	
PROJ. No. 22	SURVEY BY: HC	DATE: APR 87
N.T.S. 105 C II	DRAWN BY: HC, AI	SCALE: 1:300
DWG. No.	<b>NORANDA EXPLORATION</b>	
	OFFICE: Whitehorse	



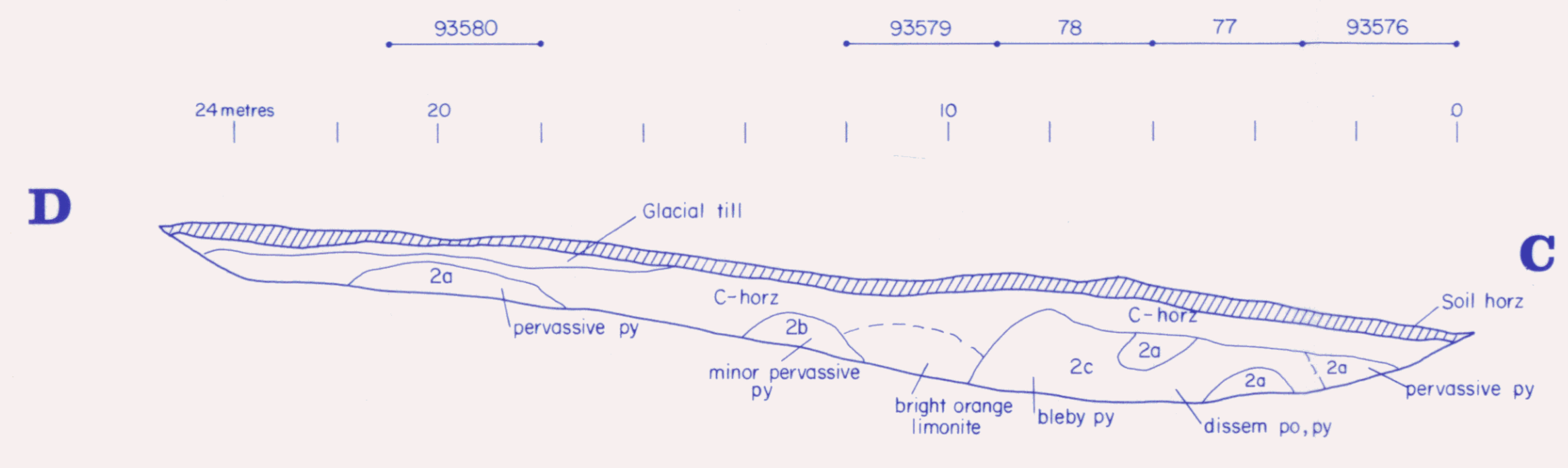
Fig. 4



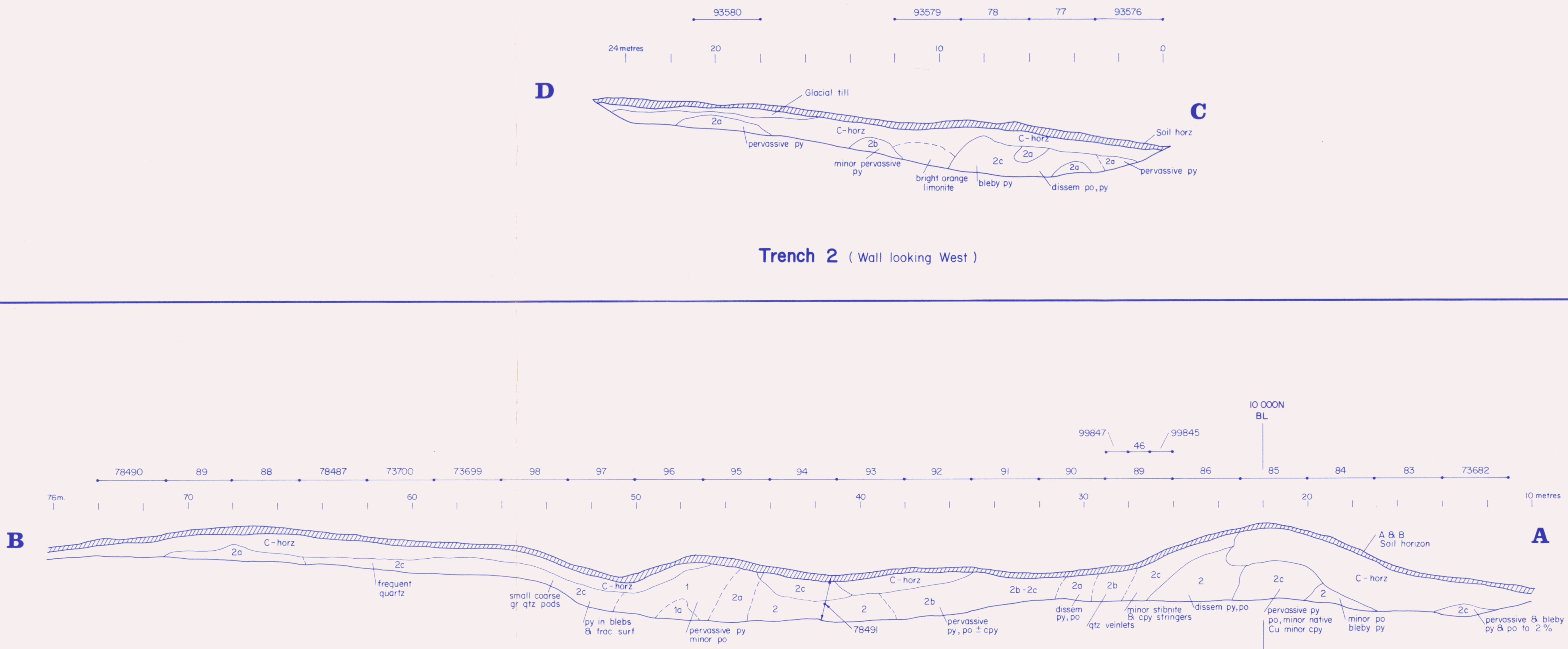
Trench 4 ( Wall looking West )



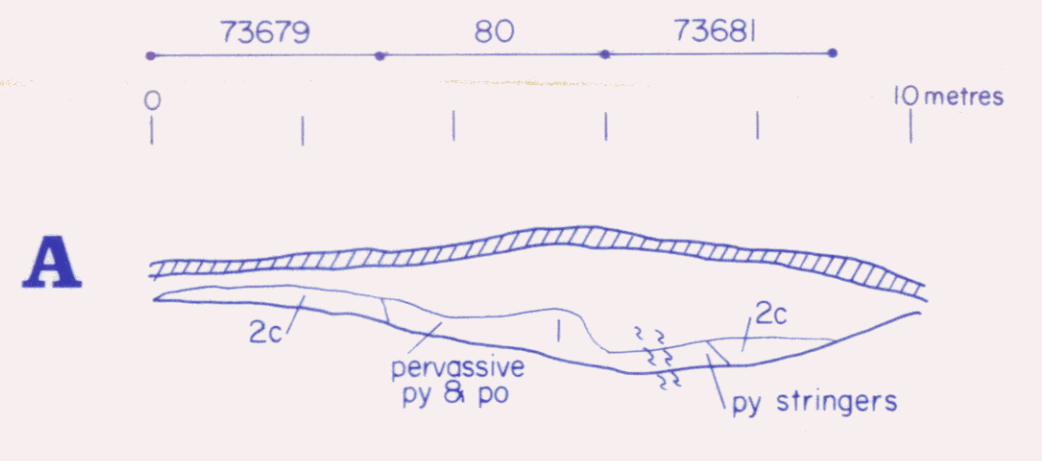
Trench 3 ( Wall looking East )



Trench 2 ( Wall looking West )



Trench 1 ( Wall looking West )



Trench 1a ( Wall looking East )

**Legend**

- 1 Very fine grained grey green tuff.
- 1a Weakly clay altered ± silica.
- 2 Medium grained grey tuff.
- 2a Weakly clay altered ± silica.
- 2b Moderate clay & silica alteration. Limonite on fracture surfaces.
- 2c Intensely clay silica alteration. Limonite rubble, coarse quartz pods.
- 3 Fine grained feldspar porphyritic tuff, weak silicification.
- 4 Dark green chert, local tuffaceous zones.



092105

REVISED	<b>TESLIN (TES 30-35 Claims)</b>	
	AEM Anomaly 75IE	
	<b>Trench Sections</b>	
PROJ. No. 22	SURVEY BY: HC	DATE: APR 1987
N.T.S. 105 C. 11	DRAWN BY: HC, AI	SCALE: 1:100
DWG. No.	<b>NORANDA EXPLORATION</b> Whitehorse	



092105

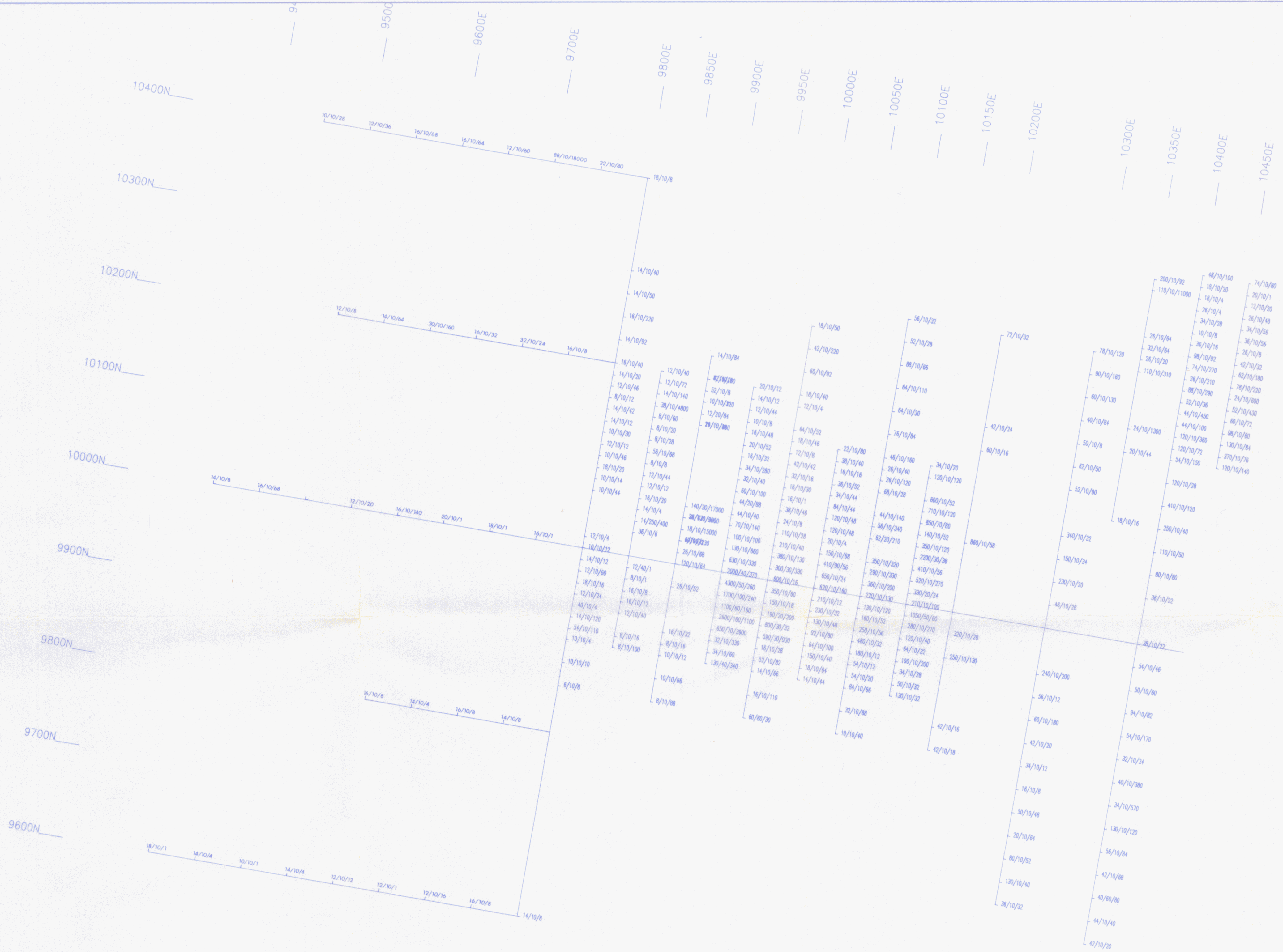
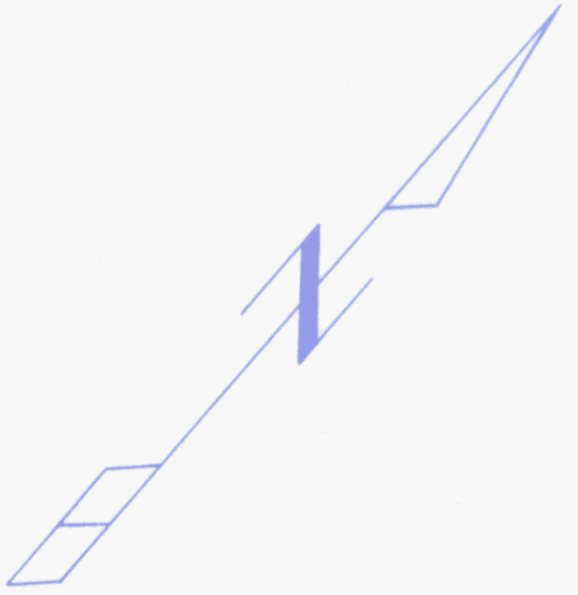
Noranda TES 30-35 Claims

0 25 50 100metres

Fig. : 6

REVISED	<b>TESLIN ( TES Claims )</b>	
	AEM Anomaly 751E	
	GRID LOCATION	
PROJ. No. <b>22</b>	SURVEY BY: AI	DATE:
N.T.S. 105 C. II	DRAWN BY: AI	SCALE: 1: 2500
DWG. No.	<b>NORANDA EXPLORATION</b>	
	OFFICE: Whitehorse	

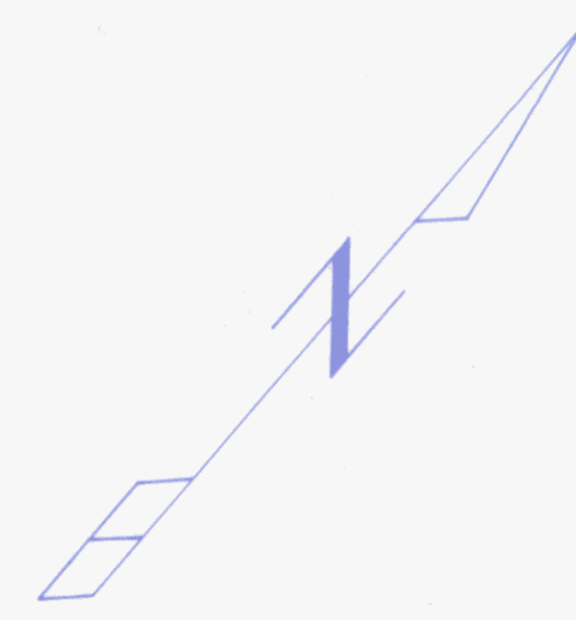




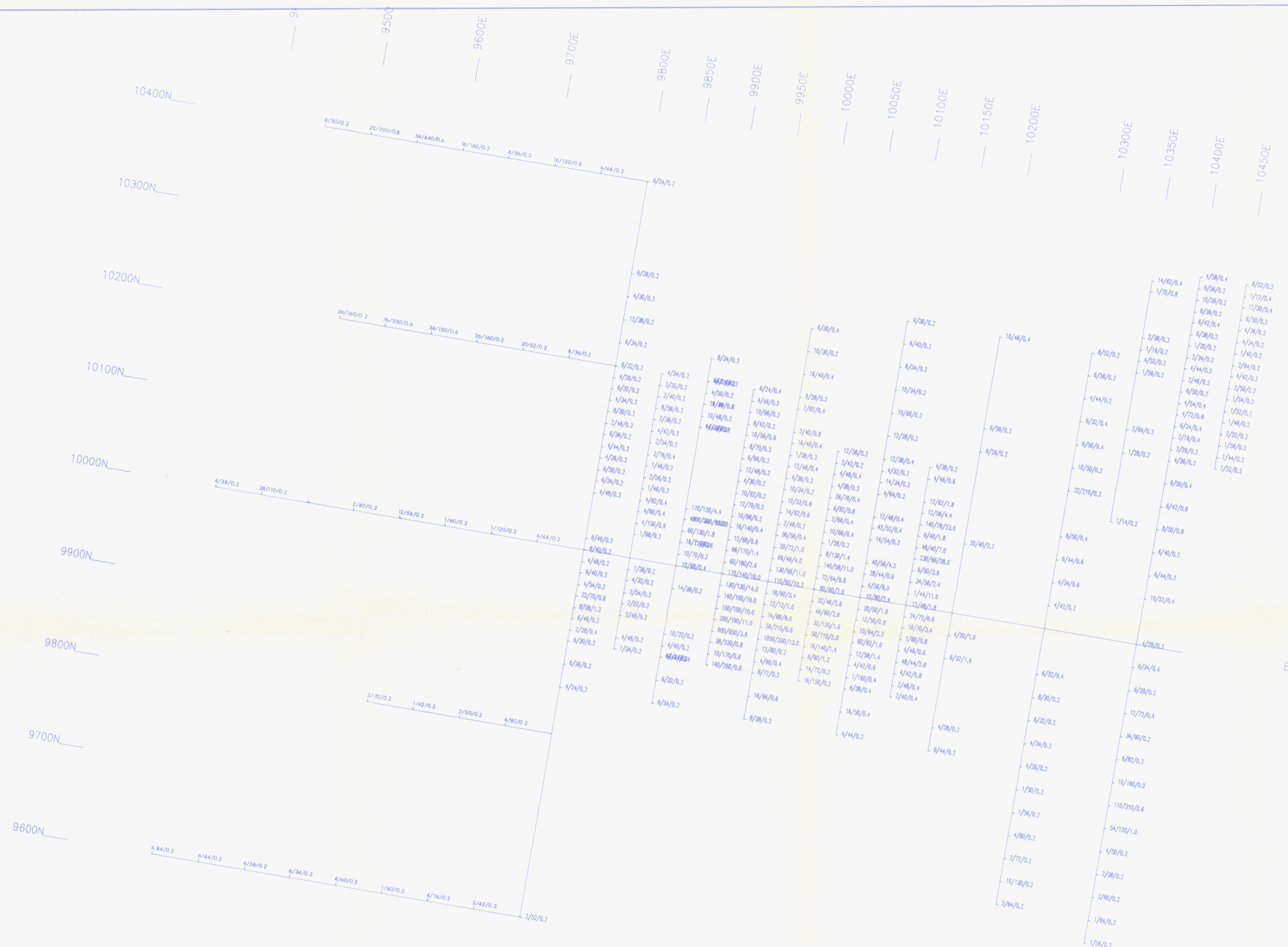
BASELINE 60°



<b>TES CLAIMS</b>	
GEOCHEMICAL SURVEY	
PPM Cu / PPB Au / PPM As	
PROJECT: TESLIN PROJECT # : 322	
BASELINE AZIMUTH : 100 Deg.	
SCALE = 1: 2500	DATE : 9/20/87
SURVEY BY : HC	NTS : 105C11
FILE: C322TES	
<b>NORANDA EXPLORATION</b>	



092105



BASELINE 60°



**TES CLAIMS**

GEOCHEMICAL SURVEY  
 PPM Pb / PPM Zn / PPM Ag  
 PROJECT: TESLIN PROJECT # : 322  
 BASELINE AZIMUTH : 100 Deg.

---

SCALE = 1: 2500      DATE : 9/20/87  
 SURVEY BY : HC      NTS : 105C11

FILE: C322TES  
**NORANDA EXPLORATION**