GEOLOGICAL AND GEOCHEMICAL SURVEY ON THE KATIE GROUP OF CLAIMS

NELSON MINING DIVISION

N.T.S. 82F/3

KATIE 1 (4017), KATIE 2 (4611), KATIE 3 (4612), KATIE 4 (4803)

Latitude 49°09' Longitude 117°20'

Owner : Ken Murray

Operator : Noranda Exploration Company, Limited (no personal liability)

Author : Terence J. McIntyre, P.Eng.
Lyndon Bradish, Division Geophysicist

Date : November 21, 1990

FILE.KATIE.TM

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SUMMARY:

The Katie group of claims are accessed from Salmo via Highway #3 south along 2½ km of paved highway. Then along 6 3/4 km of gravel logging roads which parallel the upper reaches of Hellroaring Creek.

A series of ground surveys carried out on the property entailed grid re-establishment, grid extension, geochemical sampling, geological mapping, geophysical surveys and re-logging and re-sampling Baloil's drill core.

Geological mapping of the property was carried out at a scale of 1:2,500 in conjunction with soil and rock geochemical sampling. Geophysical surveys comprising an Induced Polarization and Magnetometer survey were also carried out.

The regional geology of the Katie group consists of the Lower Jurassic Rossland volcanics intruded by stocks and plugs of Lower Cretaceous Nelson granodiorite.

The units observed and mapped on the claim group comprise the clastic rocks of the Archibald Formation, a volcanic sequence of the Elise Formation, Nelson intrusives, Tertiary dykes and breccias.

The centre of the grid is overlain by intermixed mafic to intermediate pyroclastics which have been intruded by a hypabyssal melanocratic diorite stock. As a result the overlying volcanic unit is strongly goethitic, strongly silicified and mineralized with 2 to 3% pyrite, a trace of chalcopyrite, a trace of malachite and locally a trace of magnetite.

The melanocratic diorite has been propyliticized comprising strong silicification, moderate epidotization, and generally weak goethitic, sericitic, chloritic, carbonate and ablite alteration.

Mineralization on the property consists of pyrite, chalcopyrite, malachite, bornite, and magnetite, and occurs predominantly as finely disseminated grains.

Results of grid extension and geochemical sampling revealed a copper-in-soil anomaly trending north-south and in dimensions 600-700 metres in length and 200-250 metres in width. The anomaly, located in the southwest corner of the grid, contains values ranging from 100 ppm Cu to a high of 2098 ppm Cu, but has no coincident Au values.

Geophysical results identified a number of magnetic and chargeability anomalies. Zones of localized magnetic activity appear to be indicative of small zones of intrusives which carry a high proportion of magnetic mineralization.

Three principal I.P. anomalies were identified, the first over the south half of the grid, the second over the northwest quarter of the grid, and the third lies over the southeast corner of the grid. Numerous targets arising from the compilation of the geological, geochemical and geophysical data have been identified. Many of these targets have coincident geochemical and high chargeability (I.P.) anomalies and warrant investigation.

An arcuate strong I.P. anomaly in the centre of the grid has a coincident Cu soil anomaly occurring along most of it's length. This anomaly is encompassed within a much larger I.P. anomaly of moderate intensity with associated spotty Cu soil anomalies.

In the southwest corner of the grid a strong I.P. anomaly flanked by zones of high magnetic susceptibility has a coincident down slope Cu-in-soil anomaly.

The northwest quarter of the grid is dominated by a broad pervasive moderate to strong I.P. anomaly but is lacking an accompanying geochemical anomaly.

A zone in the southeast corner of the grid has coincident spotty Cu soil anomalies and a linear Au anomaly associated with a narrow moderate to strong I.P. anomaly.

Those high chargeability (I.P.) anomalies with coincident or near coincident geochemical anomalies are primary targets for drill recommendations, and warrant testing.

1.0 INTRODUCTION

1.1 Location and Access

The Katie group of claims lie approximately 7.0 km southwest of the township of Salmo, B.C. (Figures 1 & 2). The property is accessed from Salmo via 2½ km of paved highway - Highway #3 - south of the town, and from there along 6.75 km of gravel logging roads which parallel Hellroaring Creek and it's northern tributary.

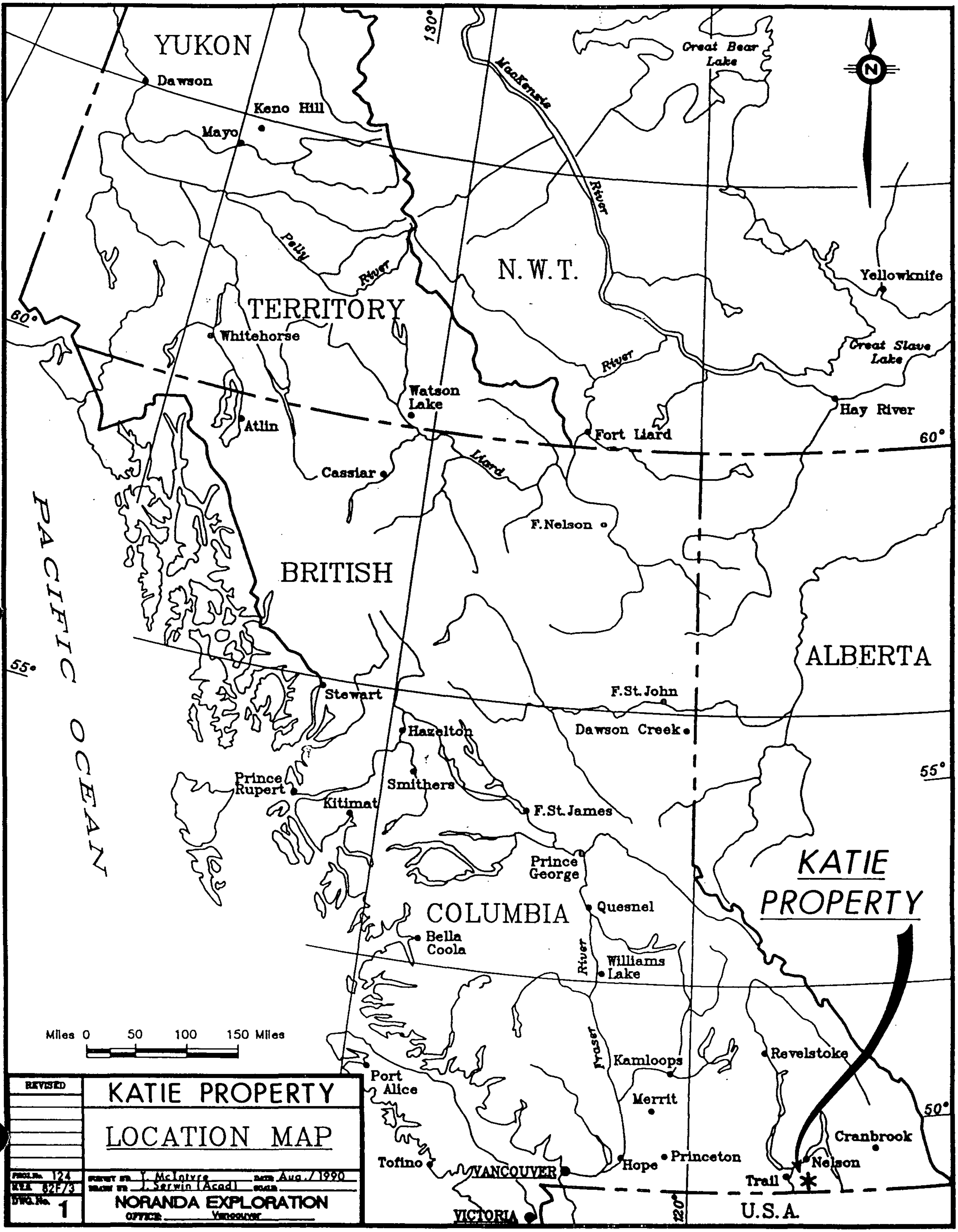
There is good access to the southeast corner of the claim group along logging roads which are generally in fair to good condition.

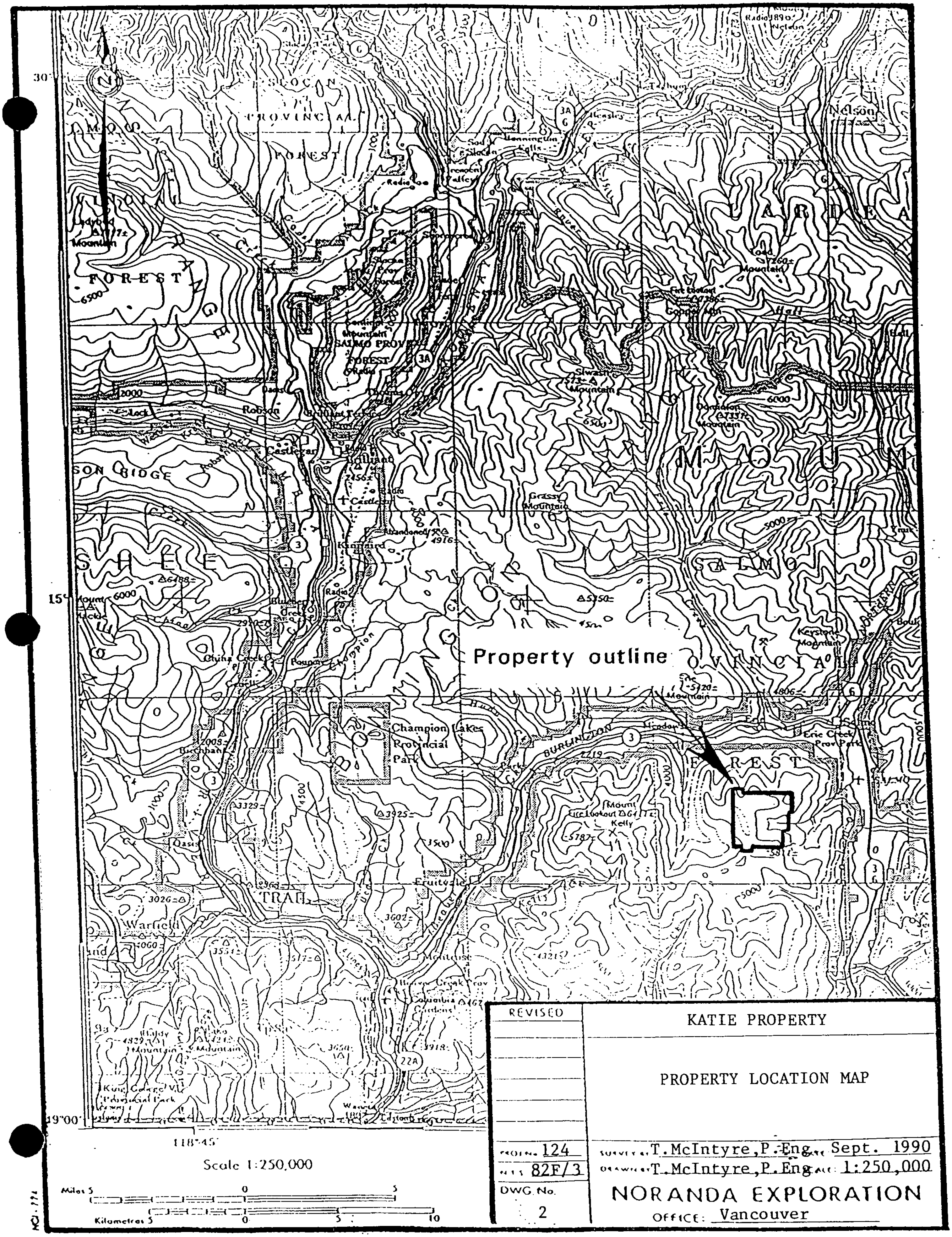
1.2 Physiography

The Katie group of claims lie within the Omineca belt in the southern Selkirk Mountains.

The physiography is composed of an oval shaped valley bottom surrounded by ridges to the north, west, south and southeast. The terrain consists of a valley bottom filled with large accumulations of glacial drift circumvallated by gently to moderately rising slopes. Elevations range from 1250 metres in the valley bottom to 1700 metres along the ridge to the west.

The southeast portion of the claim group has been clear cut logged and replaced by second growth timber which is in various stages of maturation. Most of the timber in the western part of the claim group has been subjected to a burn in the not too distant past, and there is a profusion of second growth particularly in the central and western portion of the grid.


YUKON
TERRITORY
Dawson
Keno Hill
Mayo
Whitehorse
Atlin
Watson Lake
Cassiar
Pelly River
N.W.T.
Great Bear Lake
Mackenzie River
Yellowknife
Great Slave Lake
Hay River
Fort Liard
Liard
F.Nelson
BRITISH
COLUMBIA
ALBERTA
PACIFIC OCEAN
Stewart
F.St.John
Dawson Creek
Hazelton
Smithers
Prince Rupert
Kitimat
F.St.James
Prince George
Quesnel
Bella Coola
Williams Lake
Fraser River
Kamloops
Revelstoke
Merrit
Port Alice
Tofino
VANCOUVER
VICTORIA
Hope
Princeton
Trail
Nelson
Cranbrook
U.S.A.
KATIE PROPERTY
60°
55°
50°
130°
120°
Miles 0 50 100 150 Miles
REVISED
KATIE PROPERTY
LOCATION MAP
NORANDA EXPLORATION
OFFICE Vancouver
1
Aug./1990



REVISED	KATIE PROPERTY
	PROPERTY LOCATION MAP
PROJ NO. 124	SURVEY BY T.McIntyre,P.Eng. DATE Sept. 1990
NTS 82F/3	DRAWN BY T.McIntyre,P.Eng. SCALE 1:250,000
DWG. No. 2	NORANDA EXPLORATION OFFICE: Vancouver

1.3 Claims and Ownership

The Katie group is composed of the following claims (Figure 3):

Name	Record No.	Units	Previous Due Date	New Expiry Due Date
Katie 1	4017	16	Feb. 26/92	Feb. 26/2000
Katie 2	4611	4	Apr. 24/92	Apr. 24/2000
Katie 3	4612	10	Apr. 24/91	Apr. 24/2000
Katie 4	4803	6	Aug. 26/92	Aug. 26/2000

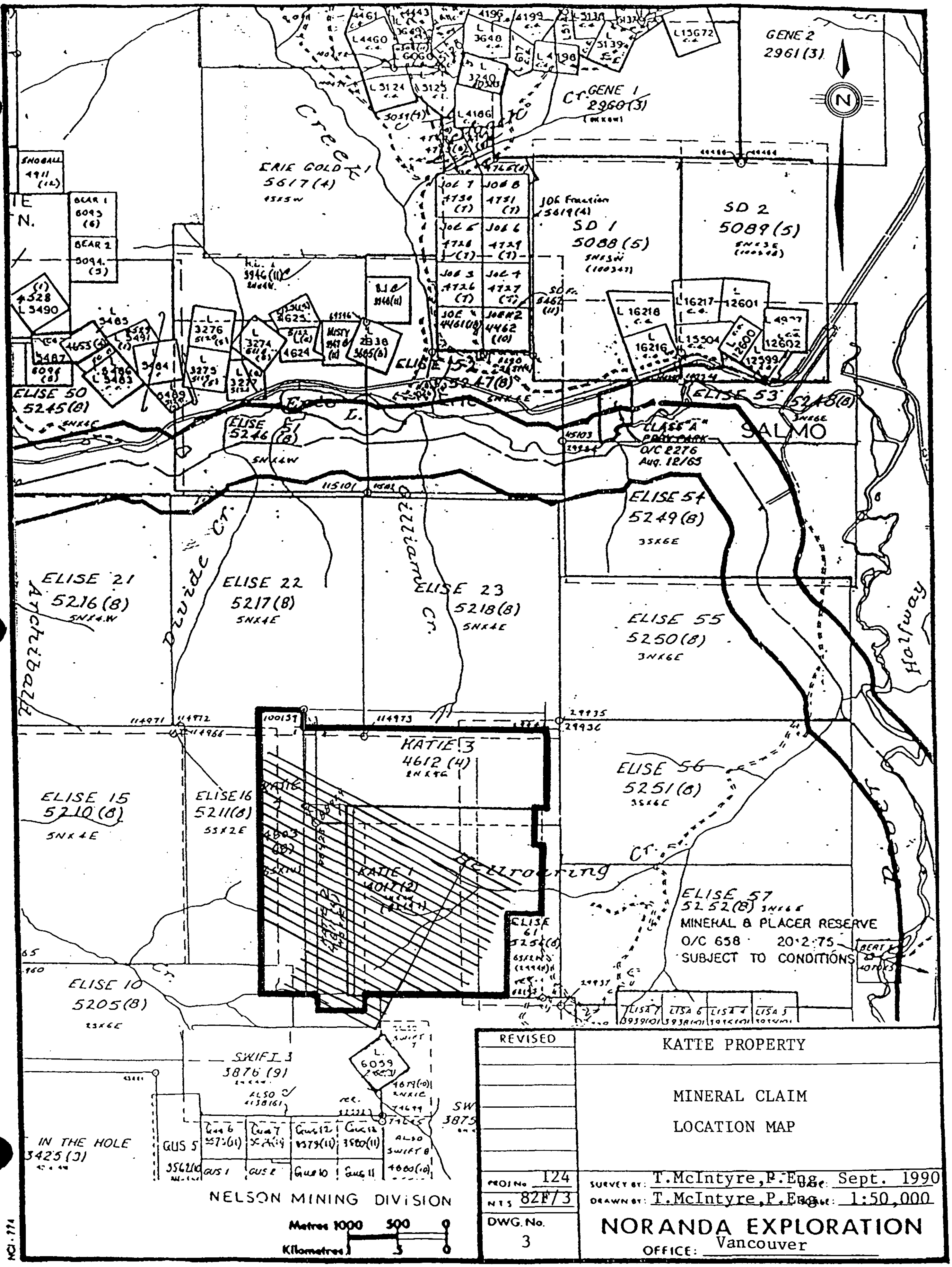
All interest in the Katie group of claims have been transferred for administrative purposes to Noranda Exploration Company, Limited (no personal liability), as stated in an option agreement between Noranda, Ken Murray and Yellowjack Resources Limited.

1.4 Previous Work

The earliest recorded work on the property was a geochemical soil sampling and prospecting survey carried out by Amoco Canada Petroleum Company Limited in June 1980. The results of their grid soil sampling programme revealed a zone anomalous in copper within which values of greater than 100 ppb Cu occur in an area 1200 m by 300-400 m in dimension. Results for molybdenum, lead, and zinc in the grid area were reported as being "uniformly low values".

In 1986 a geochemical soil sampling survey was carried out by Ken Murray in order to evaluate the copper anomaly outlined by Amoco Canada Limited. The programme consisted of grid work and prospecting. Results of this survey revealed a copper anomaly roughly 400 m by 500 m within which Cu values range from 200 to 1200 ppm. A coincident "linear gold anomaly" approximately 100 m by 500 m with Au values up to 34 ppb occurs within this zone.

In 1987 the grid was extended to the west to encompass the anomalous zone and in 1988 a geophysical VLF-E.M. and Total Field Magnetic survey, carried out by Stetson Resources Ltd., identified 4 significant conductors and a "high magnetic structure".


KATIE PROPERTY
MINERAL CLAIM
LOCATION MAP
PROJ No. 124
NTS 82F/3
DWG. No. 3
SURVEY BY: T.McIntyre,P.Eng. DATE: Sept. 1990
DRAWN BY: T.McIntyre,P.Eng. SCALE: 1:50,000
NORANDA EXPLORATION
OFFICE: Vancouver
REVISED
NELSON MINING DIVISION
Metres 1000 500 0
Kilometres 1 .5 0
N
SALMO
KATIE 3 4612 (4)
KATIE 1 4017 (2)
ELISE 15 5210 (8)
ELISE 16 5211 (8)
ELISE 21 5216 (8)
ELISE 22 5217 (8)
ELISE 23 5218 (8)
ELISE 50 5245 (8)
ELISE 54 5249 (8)
ELISE 55 5250 (8)
ELISE 56 5251 (8)
ELISE 57 5252 (8)
ELISE 10 5205 (8)
ERIE GOLD 1 5617 (4)
SD 1 5088 (5)
SD 2 5089 (5)
GENE 1 2960 (3)
GENE 2 2961 (3)
SWIFT 3 3876 (9)
IN THE HOLE 3425 (3)
MINERAL & PLACER RESERVE
O/C 658 20·2·75
SUBJECT TO CONDITIONS
CLASS "A" PROV. PARK O/C 2276 Aug. 12/65
Erie Creek
Archibald
Druide Cr.
Hellroaring Cr.
Halfway
ERIE L.

In 1989 Baloil Lassiter Petroleum Ltd. carried out a drilling, trenching, mapping and sampling programme. Drill targets were selected by geophysical interpretation and 3 of 4 diamond drill holes penetrated bedrock. Trenching uncovered bedrock approximately 60% of the time revealing 2 shear zones which were mapped and sampled. The results of the programme disclosed anomalous Au values in the drill holes and trenches, and significantly anomalous Cu values adjacent to the shear zone.

1.5 Work Performed

From June 4 to July 4, 1990 Noranda personnel conducted geochemical and geological ground surveys over the Katie property. The exploration programme entailed grid re-establishment, grid extension, soil geochemical sampling, geological mapping, and rock geochemical sampling. Geophysical surveys were carried out by Lloyd Geophysics Limited and comprised an Induced Polarization survey and a Magnetometer survey.

From July 31 to August 5, 1990 time was taken to re-log and re-sample the 3 diamond drill holes that penetrated bedrock, and to peruse target areas prior to the commencement of Noranda's drilling programme.

During the programme a total of 89 mandays were spent on the geochemical and geological surveys. Seventy-six mandays were spent on geophysical surveys of which 70 mandays, covering 14.25 km, are attributable to the I.P. survey, and 6 mandays, encompassing 36.25 km, are attributable to the Magnetometer survey.

Geochemical analysis of soil, rock, and drill core was carried out by Acme Analytical Laboratories and by Noranda's Vancouver laboratory.

1.6 Personnel

Field work was carried out on the Katie group by T. McIntyre (P.Eng., Geologist), and by S. Louden and C. Weltens (Fieldmen). Property acquisition and adminstration was performed by G. Gill (Project Geologist).

Detailed production statistics for work carried out on the Katie claims are as follows:

DESCRIPTION	SURVEY			
	Geochemical	Geophysical (km)	Geological (km)	Linecutting Grid Establ.
Total no. of samples submitted for analysis: i) Soils ii) Rocks iii) Drill Core	 693 26 56			
* Total no. of soils not submitted for analysis:	209			
Total km of Geophysical Surveys i) I.P. ii) Magnetometer		 14.25 36.25		
Total km of Geological Mapping			42	
Total km of Linecutting or Grid Establishment: i) Grid Establishment ii) Grid Re-establishment iii) Linecutting				 21.4 14.0 15.4

* These samples represent the 50 metre station intervals held in storage at Noranda's Laboratory.

2.0 METHODS

2.1 Grid Survey

A compass and hip chain type of survey was employed to extend the original grid, and tielines were used at the ends of each line to provide adequate control over the survey. The baseline was extended - azimuth 030° and 210° - and cross-lines established - azimuth 120° and 300° - at 100 metre intervals with 25 metre stations placed along the length of each line.

To enlarge the grid, the baseline was extended to the northeast and two cross-lines 100 metres apart were added. To the west the grid was extended, as far as the claim boundary, by utilizing the sixteen existing gridlines. To the southwest of the grid the baseline was extended and five cross-lines were added in order to bisect the projected strike of an auriferous shear zone hypothesized to strike onto the property.

2.2 Geological Mapping

Geological mapping coincident with geochemical sampling was carried out over the Katie grid area. Mapping, at a scale of 1:2,500, was performed with a view to identifying lithology, metamorphism, structure, mineralization, and alteration assemblages.

The drill core from Holes KT-89-1, KT-89-3, and KT-89-4 were re-logged with particular attention being paid to structure, mineralization, and alteration.

2.3 Geochemical Sampling

Geochemical surveys conducted over the Katie group consisted of rock chip and rock grab geochemical sampling, soil sampling, and drill core geochemical sampling.

Rock chip samples were taken across the width of mineralized zones, and across the width of shear and alteration zones. Rock grab samples were taken of mineralized float when an outcrop source of the float could not be found.

Rock samples collected on the property, each weighing approximately 2 kg, were placed in 6 ml plastic bags and shipped to Acme Analytical Laboratories Limited in Vancouver for analysis.

The samples were dried, sieved to -80 mesh, and subjected to a 95°C solution of 3:1:2 $HCl:HNO_3:H_2O$ for a period of 1 hour. The samples were analyzed using the 30-element ICP (inductively coupled argon plasma) method and geochemically analyzed for Au by Atomic Absorption determination.

Soil samples obtained on the Katie group were collected at 50 metre station intervals on all grid cross-lines established and on all cross-lines extended to the west. Soil samples were obtained at 25 metre station intervals in the southwestern portion of the grid in order to delineate an auriferous shear zone thought to strike onto the property.

Soil samples collected every 25 metres, in the vicinity of the shear zone, were all submitted for analysis. Elsewhere on the property the 50 metre soil samples were held for storage and the 100 metre intervals soil samples were submitted for analysis.

Samples, weighing approximately 1 kg each, were taken in the B horizon at an approximate depth of 30 cm, placed into Kraft paper bags, and partially air dried prior to shipment to Noranda's Vancouver laboratory .

Analysis was carried out by Acme Analytical Laboratories Limited using the 30-element ICP method sued for rock samples. Noranda's Vancouver laboratory conducted the analysis of Au in soil samples using Atomic Absorption determination. See Appendix I for further details on Noranda's and Acme's laboratory analytical techniques.

Drill core samples were obtained over 1.5 metre intervals, utilizing a one-half split of the remaining core, placed in 6 ml plastic bags and shipped to Acme Analytical Laboratories Limited in Vancouver for analysis.

Analysis was carried out by Acme Laboratories using the 30-element ICP method used for rock samples.

Sample type, location, numbers and results are displayed on Figures 5, 6, 7 and 8.

2.4 Geophysical Survey

An Induced Polarization and magnetometer survey were carried out on the Katie property during November of 1989 and July of 1990 under contract by Lloyd Geophysics of Vancouver. The Total Field magnetometer survey employed an EDA Omni 4 Plus magnetometer system with survey grid readings recorded at 12.5 metre intervals and the overall survey controlled by a recording fixed base station magnetometer. The field reading accuracy is assumed to be within one nanotesla. The I.P. survey employed Time Domain equipment (Huntec Tx and BGRM IP6 RX) using a 50 metre Pole-Dipole array with readings recorded down through to the fifth separation (n=1..5).

3.0 GEOLOGY

3.1 Regional Geology

The Salmo area is underlain by a series of volcanic and sedimentary rocks belonging to the Lower Jurassic Rossland Group intruded by stocks and plugs of Lower Cretaceous Nelson granodiorite (Figure 4). The Rossland Group is noteworthy as a host unit for a number of mineral occurrences especially in the Rossland Camp.

The Rossland Group of rocks is represented by clastic rocks of the Archibald Formation, overlain by a volcanic sequence of the Elise Formation and finally by clastic rocks of the Hall Formation.

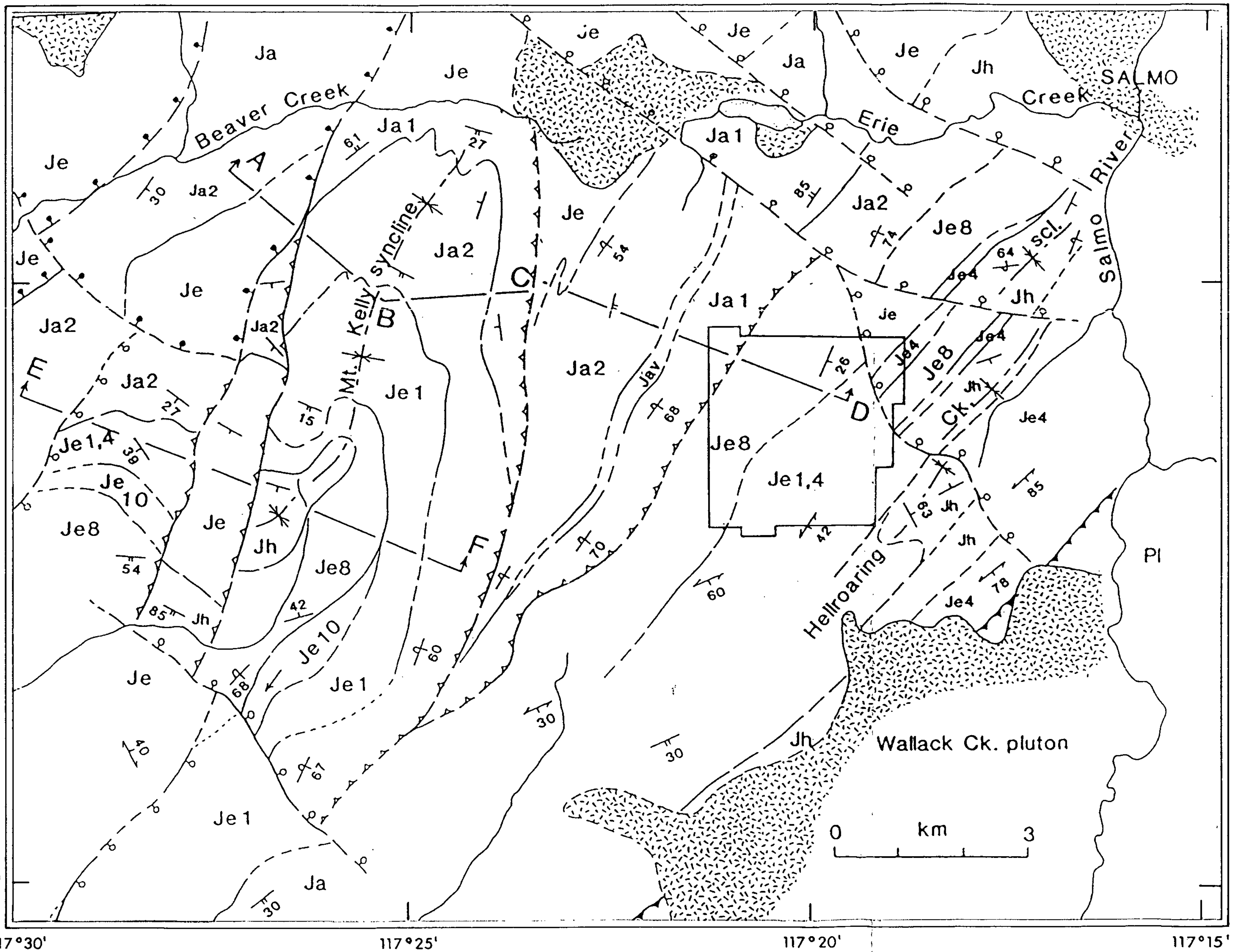
The Archibald Formation is composed of argillite and thin intercalated beds of siltstone which grade upward into interbedded siltstone, argillite and minor conglomerate. A protuberant horizon composed of a plagioclase-rich lapilli and crystal tuff also occurs within the upper portion of this formation.

The Elise Formation is composed of intermediate tuffs overlain by a sequence of mafic tephra, tuffites which are composed of mixed pyroclastic and epiclastic fragments, and epiclastic rocks. The Upper Elise consists of heterolithic lapilli stone, lapilli tuff, and pyroclastic breccia (Höy and Andrew, 1989). Preponderant in the upper portion of this formation are mafic flows and tuffaceous rocks in sharp contact with the argillites and siltstones of the overlying Hall Formation.

The Hall Formation is composed of a black, fissile locally graphitic argillite with minor intercalations of thin beds of siltstone.

3.2 Property Geology

Geological mapping on the Katie group was hindered by a paucity of outcrop, however, much of the property is underlain by intermixed mafic to intermediate pyroclastic deposits of the Elise Formation which have been intruded by hypabyssal diorites (Figure 5).



Geological map of the Mount Kelly - Hellroaring Creek area, Salmo map sheet, southeastern British Columbia (after Höy and Andrew, 1990: Fitzpatrick, 1985 and Little, 1964). From: BC Ministry of Energy, Mines & Petroleum Resources. Geological Fieldwork 1989, Paper 1990-1.

LEGEND

JURASSIC - CRETACEOUS

- granite, granodiorite

LOWER JURASSIC - ROSSLAND GROUP

- Jh — HALL FORMATION: argillite, siltstone
- Je — ELISE FORMATION
  - Je10 — siltstone, argillite
  - Je8 — intermediate to mafic tuff
  - Je1,4 — mafic flows tuff
- Ja — ARCHIBALD FORMATION
  - Ja2 — siltstone, conglomerate
  - Ja1 — argillite, siltstone
  - Jav — lapilli tuff

Km. 1.5 — 0 — 1.5 — 3 Km.

REVISED	KATIE PROPERTY
	REGIONAL GEOLOGY
PROJ. No. 124	SURVEY BY: Höy & Andrew DATE: 1990
N.T.S. 82F/3	DRAWN BY: J.S., SCALE: 1:75,000
DWG. No. 4	**NORANDA EXPLORATION** OFFICE: VANCOUVER

NCI-777

P.J.A.

The units observed and mapped on the claim group include the Elise Formation volcanic rocks, the Archibald Formation clastic rocks, Nelson intrusives, Tertiary dykes and breccias.

3.2.1 Elise Formation

The Elise Formation volcanic rocks are represented on the claim group as an andesitic tuff, lapilli tuff, agglomerate, or flow to a basaltic ash tuff.

The tuff is intermediate in composition, fine grained, medium to light green in colour, and, where altered, weathers buff brown. In some locations this unit contains subangular lapilli sized fragments averaging 2 mm to 6 cm in width. The agglomerate is composed of large subangular clasts averaging 8 to 10 cm in width in a fine to medium grained matrix. The basaltic tuff is grey to grey-black in colour and ranges from aphanitic to fine grained.

The tuff has been observed to grade into an augite porphyry predominantly in the northwest portion of the grid. The unit is dark green in colour with 1 mm to 3 mm sized phenocrysts of augite or hornblende, locally laths of feldspar may be present, and the matrix is composed of aphanitic feldspars, augite and hornblende.

3.2.2 Archibald Formation

The Archibald Formation clastic rocks were observed as cobble sized float of argillite or shale and was not discerned to outcrop within the grid area.

The argillite is a very fine grained massive unit, and is black in colour.

3.2.3 Nelson Intrusives

The Nelson Intrusives are dioritic to granitic in composition. They vary in float from a leucrodiorite to a melanocratic diorite, and from a granite to a granodiorite.

The diorites are equigranular, finely crystalline, and vary from leucocratic to melanocratic in composition, and from a true diorite to a quartz rich diorite. In hand specimen the unit is greenish to greenish-brown in colour with fine or ragged needles of hornblende.

In float moderately to coarsely crystalline diorites, occurring as boulder sized erratics, were noted and mapped. Occasionally these are porphyritic with euhedral phenocrysts of plagioclase 2 cm in size.

The granitic rocks are moderately to coarsely crystalline units composed of subhedral to euhedral equigranular crystals. They vary from a true granite to a granodiorite in composition and are occasionally porphyritic. These units were infrequently observed and only as cobble to boulder sized erratics.

3.2.4 Tertiary Dykes

The Tertiary dykes observed and mapped within the grid area consist of lamprophyre, aplite, and feldspar porphyry. A finely crystalline diorite was also observed to subcrop in the western portion of the grid and a microdiorite dyke was intersected in diamond drill hole KT-89-1.

The lamprophyre dyke is dark-green to moderately brown in colour with black specks. It is finely crystalline, contains abundant biotite, and is weakly to moderately magnetic. Where altered it is strongly chloritized and biotized, and where strongly altered it crumbles at the touch.

The aplite dyke is greyish white in colour, finely crystalline, quartz and feldspar rich, and locally silicified.

The feldspar porphyry dyke is composed of euhedral laths of feldspar 1 to 3 mm in size within a very finely crystalline matrix. Locally the unit is weakly magnetic due to fine disseminations of magnetite, with moderate to intense goethitic alteration giving it a reddish-brown hue.

3.2.5 Breccias

Numerous cobble sized fragments of breccia float were encountered during mapping of the Katie property, however, an outcrop source of the float was not located. The breccias fall into two basic categories which consist of an aplite breccia and a siliceous breccia.

The aplite breccia is composed of angular to subangular fragments of finely crystalline aplite averaging 5 to 7 cm in size in a fine to medium grained matrix composed of dacitic to basaltic tuff.

The siliceous breccia contains subangular to rounded fragments composed of silicified aplite, and/or of silica set in a matrix of, in order of abundance, goethite, jarosite, and minor hematite.

3.3 Structure

Structural features on the property were infrequently observed due to a paucity of outcrop. However, foliation and/or shearing was observed along the ridge tops in three areas on the grid.

First, in the southwest portion of the grid, foliation and weak to moderate shearing was noted, within the andesite tuff, trending north-south and dipping moderately to steeply, to the west (Figure 5).

Second, in the northwest corner of the grid two foliation trends were observed, one striking north-south and dipping steeply to the east. The other striking east-west and dipping moderately to the south.

A contact was observed in the extreme northwest corner of the grid, occurring between melanocratic diorite and andesite ash tuff, striking north-south with a shallow dip to the east.

Lastly, in the southeastern portion of the grid there is a pronounced shear zone varying in intensity from moderate to strongly sheared, striking approximately north-south and dipping moderately to steeply to the east.

Moving toward the centre of the grid the shear changes in intensity and it's orientation. Outside the central zone it is weakly sheared, trends east-west and dips moderately to the north.

Within the central zone, where Baloil conducted a drilling and trenching programme and identified two shear zones, the shear zones both strike northwest-southeast and dip moderately to strongly to the northeast. The most northerly shear zone is reported to vary in width from 10 metres to 20 metres (Skupinski, 1989).

Lamprophyre and feldspar porphyry dykes, observed during Baloil's exploration programme in the vicinity of the shear zones, appear from A. Skupinski's mapping to have a strike subparallel to the shears and a moderate to steep northeast dip.

Both the most northerly shear zone and the lamprophyre dykes can be seen in the walls of Trench 105+00N, 92+50E (Figure 5).

3.4 Alteration and Mineralization

3.4.1 Alteration

From outcrop and float mapping the Katie claims are underlain by intermixed mafic to intermediate pyroclastics intruded by hypabyssal diorites. The pyroclastic deposits in turn are cut by lamprophyre, aplite, and feldspar porphyry dykes.

A melanocratic diorite stock in the centre portion of the grid has extensively altered the overlying volcanic unit. A strongly silicified, and strongly goethitic tuff consisting of 2 to 3% pyrite, a trace of chalcopyrite, and a trace of malachite dominates the central portion of this zone. Peripherally to this the volcanic unit has been weakly to moderately silicified, weakly pyritized and exhibits goethitic and hematitic alteration.

Alteration assemblages within the central zone are clearly porphyry Cu in style and comprise two basic types, these being potassic and propylitic alteration.

Potassic alteration occurring near the northern extent of the zone was observed near the bottom of DDH-KT-89-1. It occurs at, and on either side of, the melanocratic diorite-microdiorite contact. K-spar, confirmed by K-feldspar staining,consists of secondary pink wisps of K-spar occurring within quartz veinlets and along fractures and is accompanied by clots of albite. Primary K-spar, more ubiquitous than is evident in hand specimen, is also pervasive in melanocratic diorite and microdiorite samples obtained near the bottom of the hole.

Overlying the potassic alteration encountered in DDH-KT-89-1 is an envelope of propylitic alteration composed of strong silicification, moderate epidotization and generally weak goethitic, sericitic, chloritic, and carbonate alteration. Propylitic alteration, noted elsewhere within the central zone, consist of moderate silicification, weak sericitization, chloritization, carbonatization and hematitization, and weak to strong goethitic alteration.

By far the most pervasive alteration product noted on the property is propylitic alteration. It is generally confined to two areas, the first mentioned above is the central zone and the second occurs within a zone in the southwest corner of the grid. Prevalent from surface mapping within these two zones the melanocratic diorite is locally epidotized and weakly to moderately magnetic. The tuff unit on the other hand is weakly to moderately silicified and pyritized.

3.4.2 Mineralization

Mineralization noted on the property comprises varying amounts of pyrite - the most abundant sulphide - and minor amounts of chalcopyrite and magnetite, and trace amounts of malachite and bornite.

Pyrite mineralization occurs predominantly as fine disseminations throughout the rock but also occurs as fracture filling forming narrow veinlets and discrete 1 mm size lenses within quartz veins.

Chalcopyrite also occurs as disseminated grains within the rock but more often than not is intimately associated with quartz stringers as evidenced in the core.

Malachite occurs as a coating along fracture planes, and both bornite and magnetite occur as disseminated grains within the rock.

3.5 Diamond Drilling

As mentioned previously in Section 1.4 a diamond drill programme conducted by Baloil in 1989 was carried out consisting of four "NQ" size holes and totalling 305 metres in length. Time was taken by Noranda personnel to re-log and re-sample portions of the three diamond drill holes that penetrated bedrock. The diamond drill hole logs and geochemical results appear in Appendix III.

Hole number KT-89-1 intersected bedrock at 46.17 m and from this point to 79.30 metres the hole consisted of a finely to moderately crystalline and strongly epidotized melanocratic diorite.

A fault zone was intersected between 52.94 and 56.80 metres and a microdiorite dyke was encountered between 68.80 m and 70.30 metres.

The bottom of the hole intersected a microdiorite from 79.30 m to 82.35 m (E.O.H.) and K-feldspar alteration was noted between the interval 74.80 m and 80.80 metres.

The best intersection from this hole from geochemical analysis is summarized as follows:

TABLE 1 **DDH-KT-89-1**

From (m)	To (m)	Length (m)	Cu %	Au g/T	Ag g/T
50.80	52.30	1.5	0.13	0.03	0.5
52.30	53.80	1.5	0.05	0.001	0.2
53.55	55.30	1.5	0.09	0.153	0.5
55.80	56.80	1.5	0.15	0.056	0.8
56.80	58.30	1.5	0.13	0.037	0.5
58.30	59.80	1.5	0.27	0.144	0.5

Hole number KT-89-3 intersected bedrock at 9.15 metres and from this point to the bottom of the hole at 45.75 metres the hole consisted of a leucoandesitic to andesitic ash tuff. The upper portion of the hole is strongly goethitic and the entire length of the hole is strongly silicified.

A shear zone was intersected between 9.15 m and 25.50 metres and a highly altered lamprophyre dyke was encountered between 21.96 m and 23.50 metres.

The best intersection from this hole analyzed through geochemical determination is summarized as follows:

TABLE 2 **DDH-KT-89-3**

From (m)	To (m)	Length (m)	Cu %	Au g/T	Ag g/T
26.00	27.50	1.5	0.24	0.05	0.3
27.50	29.00	1.5	0.13	0.05	0.1
29.00	30.50	1.5	0.08	0.04	0.2
30.50	32.00	1.5	0.22	0.23	4.8
32.00	33.50	1.5	0.21	0.07	4.7
33.50	35.00	1.5	0.12	0.04	0.2

Hole number KT-89-4 intersected bedrock at 6.09 metres and cut through a tuff unit, varying in composition from leucoandesite to basalt, until it reached a depth of 121.00 metres. The unit is moderately to strongly goethitic diminishing in alteration intensity with depth and strongly silicified down the length of the hole.

A shear zone was intersected from 29.00 m to 45.41 metres, and lamprophyre dykes were encountered between 15.34 m and 25.27 m, and between 49.98 m and 50.23 metres.

The best intersection is summarized as follows:

TABLE 3 **DDH-KT-89-4**

From (m)	To (m)	Length (m)	Cu %	Au g/T	Ag g/T
30.24 *	31.74	1.5	0.32	0.13	0.6
31.74	33.24	1.5	0.20	0.13	1.1
33.24	34.74	1.5	0.23	0.38	3.1
34.74	36.24 *	1.5	0.21	0.14	1.9
36.24	37.74	1.5	0.06	0.001	0.1
37.74	39.24	1.5	0.15	0.12	0.1
* Average Grade					
30.24	36.24	6.0	0.24	0.20	1.7

4.0 GEOCHEMICAL RESULTS

The results of extending the grid to the west revealed a small roughly oval shaped Cu anomaly with values greater than or equal to 100 ppm, located in the southwest corner of the grid (Figure 7). It trends north-south lying between Lines 103+00N and 97+00N and between Stations 81+00E and 87+00E. This anomaly is 200-250 metres in width and 600-700 metres in length. Values within this anomaly range from 100 ppm to a high of 2098 ppm Cu. There are no coincident Au soil values proximate to this Cu anomaly (Figure 8).

To the south the baseline was extended and crosslines added, to intersect the projected strike of the west arm of an auriferous shear zone hypothesized to strike onto the property, the results of which revealed anomalous Cu and Au values in the soil. Linear Cu soil anomalies occur between Stations 94+00E and 98+00E and between Lines 93+00N and 98+00N (Figure 7). These anomalies, with values greater than or equal to 100 ppm Cu, trend northeast-southwest and average 100 metres in width and 400-450 metres in length. Values within these anomalies range from 100 ppm to over 400 ppm Cu.

The Au values are spotty but trend roughly north-south in linearly shaped anomalies consisting of values ranging from 20 ppb to 90 ppb Au. The dimensions of the anomalies are roughly 25-75 metres in width by 200-300 metres in length (Figure 8).

In the southeast corner of the grid, in the vicinity of the projected strike of the east arm of an auriferous shear zone, occur two Cu soil anomalies.

The first occurs between Stations 101+00E and 105+00E and between Lines 101+00N and 104+00N. The Cu anomaly is roughly oval in shape and is 200 metres by 350 metres in dimension. The Cu-in-soil values range from 100 ppm to 175 ppm but lack an accompanying Au anomaly.

The second lies between Stations 101+50E and 105+00E and between Lines 97+00N and 99+00N. It is somewhat elliptical in shape - open ended to the southwest - within which Cu values range from 100 ppm to 240 ppm. This anomaly has an accompanying north-south trending Au anomaly, 100 metres in length by 25 metres in width, within which values range from 20 ppb to 62 ppb Au.

Other geochemical anomalies occurring elsewhere on the grid are spotty and small in scale.

5.0 GEOPHYSICAL RESULTS

The magnetometer survey has mapped a number of "anomalies" that require explanation (Figure 19). There are two major magnetic domains reflecting the gross underlying geology. Specifically in the (true) south half of the grid the magnetic background is elevated and has a somewhat noisy signature typical of an intrusive (dioritic) source. Exterior to this in the (true) north half of the grid the magnetics generally have a smooth, low amplitude response indicating a uniform magnetic susceptibility, which in this case is the signature of the underlying andesites. Elsewhere there are small zones of increased magnetic susceptibility in or around L.107+00N/95+00E, L.99+00N/89+00E and L.99+00N/85+00E. These zones of localized magnetic activity appear to be sourced by small zones of intrusive that carry a greater proportion of magnetic mineralization.

A feature that is evident in the magnetic data is the circular magnetic ring/high centred at 103+50N/87+00E with a diameter of approximately 700-800 metres. This type of signature is typically reserved for an intrusive, however, it may also be due to an arcuate magnetic dyke.

The Induced Polarization survey has identified a large number of targets of which many warrant investigation (Figures 9 to 18). The primary response targeted for drill recommendations have been large Chargeability (I.P.) anomalies that are coincident or near coincident with anomalous geochemical responses. Magnetics and resistivity play a secondary role in the targeting process. Three principal I.P. anomalies or signatures are identified on the Katie grid, specifically a large, discontinuous zone that flanks the main interpreted intrusive signature over the south half of the grid, extending in an arcuate manner along the approximate points L.109+00N/99+00E - L.104+00N/91+00E - L.97+00N/88+00E. The second geophysical signature is the large pervasive chargeability anomaly that occurs over an extensive section of the northwest quarter of the grid. Sections of this anomaly type lie on the flanks of small magnetic intrusive/stock signatures in the west (true) corner of the grid - Lines 97+00N to 104+00N at about Station 85+00E. The third zone is a narrow source located at L.98+00N/102+50E, L.100+00N/103+75E, L.102+00N/103+75E and a possible offshoot at L.102+00N/102+50E, which is mapped as a (mineralized) shear zone.

6.0 RESULTS AND RECOMMENDATIONS

A number of targets arising from a compilation of geological, geochemical and geophysical surveys have been identified. Many of these targets exhibit high chargeability (I.P.) and a coincident geochemical anomaly and warrant investigation. A strong I.P. anomaly forms the basis in the targeting process, and a number of interesting zones have been identified as a result.

An arcuate strong I.P. anomaly located in the centre of the grid occurs along the approximate points L.98+00N/87+50E, L.104+00N/87+50E, L.104+00N/90+75E, L.106+00N/92+00E, L.106+00N/94+00E, and L.108+00N/96+00E. A coincident Cu soil anomaly occurs along most of it's length and flanking this I.P. anomaly is a one kilometre long zone of high magnetic susceptibility. The strong I.P. anomaly is encompassed with a much larger I.P. anomaly of moderate intensity within which spotty Cu soil anomalies, 100 to 300 metres in size, flank the main Cu geochem anomaly.

These Cu geochemical anomalies are greater than or equal to 100 ppm Cu and only the main Cu geochemical anomaly, which is 400-650 metres in width by 1000 metres in length, has an associated Au-in-soil anomaly. The Au anomaly is linear occurring obliquely to Lines 106+00N and 107+00N from 92+00E to 98+00E and comprises values ranging from 20 ppb to 68 ppb Au.

In the southwest corner of the grid occurs a strong I.P. anomaly flanked by zones of high magnetic susceptibility and a coincident down slope Cu-in-soil anomaly 600-700 metres in length and 200-250 metres in width.

The northwest quarter of the grid is dominated by a broad pervasive moderate to strong I.P. anomaly but is lacking an accompanying geochemical anomaly.

A zone in the southeast corner of the grid has coincident spotty Cu soil anomalies approximately 200-350 metres in size associated with a narrow moderate to strong I.P. anomaly.

The Cu soil anomaly also has an accompanying Au-in-soil anomaly 100 metres in length and 25 metres in width within which values range from 20 ppb to 64 ppb.

Those high chargeability (I.P.) zones mentioned above with coincident or near coincident geochemical anomalies are the primary targets for drill recommendations.

These zones are illustrated on the plan Magnetometer and compilation map (Figure 9), along with all other secondary responses of interest. Anomalies of specific interest have been selected (in discussion with G. Gill, Project Geologist and L. Bradish, Geophysicist), as drill targets on the basis of geophysics, geology, and geochemistry. Specifically the I.P. targets of <u>immediate interest</u> (depths are minimum depth to target) and listed sequentially from north to south are:

L.108+00N/97+00E & 95+50E/d = 75 m	Possibly one or two zones
L.106+00N/94+00E - 94+75E/d = 50-75 m	
L.104+00N/87+00E - 88+25E/d = 65 m	{ Two associated
L.104+00N/88+00E - 89+50E/d = 75 m	{ targets
L.104+00N/90+75E - 91+50E/d = 25 m	
L.100+00N/82+25E - 84+00E/d = 25 m	broad, high amplitude I.P.

<u>Second priority targets</u> are located at:

L.108+00N/ 82+00E - 84+00E/d = 25 m
L.104+00N/ 94+00E - 94+75E/d = 120 m
L.102+00N/ 87+75E - 88+50E/d = 50 m
L.102+00E/ 82+00E - 82+75E/d = 25 m
L.100+00E/ 86+50E - 87+50E/d = 25 m
L. 98+00E/ 87+00E - 88+00E/d = 25 m
L. 98+00E/103+25E - 104+25E/d = 25 m

Note that these primary and secondary locations may be modified on the basis of geology, geochemistry and terrain.

The drill targets listed above as being I.P. targets of immediate interest all have coincident geochemical anomalies and merit testing. Therefore, in the author's estimation, these first six targets should be drill tested.

7.0 CONCLUSIONS

The regional geology of the Katie group consists of Lower Jurassic Rossland volcanics intruded by stocks and plugs of Lower Cretaceous Nelson granodiorite.

The Katie claims are underlain by intermixed mafic to intermediate pyroclastic deposits intruded by hypabyssal dioritic intrusives. The pyroclastics are, in turn, cut by lamprophyre and feldspar porphyry dykes.

In the centre of the grid a melanocratic diorite stock has extensively altered the overlying volcanic unit. Predominant in this central zone is a strongly silicified and strongly goethitic tuff consisting of 2 to 3% pyrite, a trace of chalcopyrite, and a trace of malachite.

The most pervasive alteration product noted on the property is propylitic alteration. The melanocratic diorite is locally strongly silicified, moderately epidotized, with weak goethitic, sericitic, carbonate, and albite alteration. The tuff unit, on the other hand, is locally silicified, with weak to strong goethitic and jarositic alteration, and minor carbonatization, chloritization, sericitization, and pyritization.

From re-sampling of Baloil's drill core the best intersection is in Hole KT-89-4 from 30.24 to 36.24 metres and comprises 6.0 metres of 0.24% Cu, 0.20 grams/tonne Au, and 1.7 grams/tonne Ag.

Geochemical results revealed a Cu-in-soil anomaly trending north-south and in dimensions is 600-700 metres in length by 200-250 metres in width. The anomaly located in the southwest corner of the grid contains values ranging from 100 ppm to 2098 ppm Cu but no associated Au values.

The geophysical results revealed numerous high chargeability (I.P.) anomalies many with proximal geochemical anomalies thus meriting investigation.

Zones composed of high chargeability (I.P.) anomalies with coincident or near coincident geochemical anomalies are located in three principal areas. The first is over the centre portion of the grid, the second over the southwest corner of the grid and the third lies in the southeast corner of the grid.

These high chargeability (I.P.) anomalies with proximal geochemical anomalies are the primary targets of interest and warrant testing.

8.0 REFERENCES

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APPENDIX I

ANALYTICAL METHOD DESCRIPTIONS FOR GEOCHEMICAL ASSESSMENT REPORTS

ANALYTICAL METHOD DESCRIPTIONS FOR GEOCHEMICAL ASSESSMENT REPORTS

The methods listed are presently applied to analyses geological materials by the Noranda Geochemical Laboratory at Vancouver.

Preparation of Samples:

Sediments and soils are dried at approximately 80°C and sieved with a 80 mesh nylon screen. The -80 mesh (0.18 mm) fraction is used for geochemical analysis.

Rock specimens are pulverized to -120 mesh (0.13 mm). Heavy mineral fractions are analyzed in its entirety, when it is to be determined for gold without further sample preparation.

Analysis of Samples:

ICP analyses for 28 elements is determined using a Leeman PS3000. For silts and soils a 0.2 g sample is digested with 3 ml of $HClO_4/HNO_3$ at a ratio of 4:1. This digestion occurs for 4 hours at a temperature of 203°C. The resulting liquid is diluted to 11 ml with water. Pulps of rock or core are weighed out at 0.4 g, and chemical quantities are doubled relative to the above noted method for digestion. Otherwise the procedure remains the same.

Gold (Au) content is determined by atomic absorption (AA), not ICP. A 10 g sample is weighed and ashed at 590°C for 3 to 5 hours. After cooling, 35 mls of aqua regia ($1HNO_3$:3HCl) is added and the samples are digested on a hot plate for 2 hours, or until 15 mls of aqueous solution is left. Dilute with water to 100 mls and add 5 mls MIBK. Addition of MIBK extracts and pre-concentrates the gold from the aqueous solution. Following this step the MIBK solution is analyzed on the AA.

Detection limits (D.L.) and low range sensitivities (L.R.S.) for ICP and AA (Au only) analyses (Noranda Vancouver Laboratory).

Element	D.L.	L.R.S.	Element	D.L.	L.R.S.
Au (ppb)	5		K (%)	0.01	
Ag (ppm)	0.2		La (ppm)	1	
Al (%)	0.02		Li (ppm)	1	
As (ppm)	2	5	Mg (%)	0.01	
Ba (ppm)	1		Mn (ppm)	1	
Be (ppm)	0.1		Mo (ppm)	1	3
Bi (ppm)	2	5	Na (%)	0.01	
Ca (%)	0.1		Ni (ppm)	1	
Cd (ppm)	0.2	0.5	P (%)	0.01	
Ce (ppm)	5		Pb (ppm)	2	5
Co (ppm)	1		Sr (ppm)	1	
Cr (ppm)	1		Ti (%)	0.01	
Cu (ppm)	1		V (ppm)	2	
Fe (%)	0.1		Zn (ppm)	1	

ACME ANALYTICAL LABORATORIES LTD.
Assaying & Trace Analysis
852 E. Hastings St., Vancouver, B.C. V6A 1R6
Telephone: 253-3158

GEOCHEMICAL LABORATORY METHODOLOGY & PRICES - 1989

Sample Preparation

S80	Soils or silts up to 2 lbs drying at 60 deg.C and sieving 30 gms -80 mesh (other size on request)	$ .85
SJ	Saving part or all reject	.45
S20R	Soils or silts - drying at 60 deg.C and sieving -20 mesh & pulverizing (other mesh size on request.)	2.00
SP	Soils or silts - drying at 60 deg.C pulverizing (approx . 100 gms)	1.50
RP100	Rocks or cores - crushing to -3/16" up to 10 lbs, then pulverizing 1/2 lb to -100 mesh (98%)	3.00
Cr	Surcharge crushing over 10 lbs	.25/lb
2PX	Surcharge for pulverizing over 1/2 lb	1.00/lb
RPS100	Same as RP100 except sieving to -100 mesh and saving +100 mesh (200gms)	3.75
RPS100 1/2	Same as above except pulverizing 1/2 the reject - additional	1.00/lb
RPS100 A	Same as above except pulverizing all the reject - additional	1.00/lb
OP	Compositing pulps - each pulp Mixing & pulverizing composite.	.50 1.50
HM	Heavy mineral separation - S.G.2.96 + wash -20 mesh	12.00
V1	Drying vegetation and pulverizing 50 gms to -80 mesh	3.00
V2	Ashing up to 1 lb wet vegetation at 475 deg.C	2.00
HI	Special Handling	17.00/hr

Sample Storage

Rejects - Approx. 2 lbs of rock or total core are stored for three months and discarded unless claimed.

Pulps are retained for one year and discarded unless claimed.

Additional storage - for 3 years $10.00/1.2 cu.ft. box
or 15 cents/sample pulp
or 5 cents/sample soil

Supplies

Soil Envelopes	4" x 6"	$125.00/thousand
Soil Envelopes	4" x 6" with gusset	$140.00/thousand Plastic
Bags	7" x 13" 4 ml	$10.00/hundred
Plastic Bags	12" x 20" 6 ml	$ 20.00/hundred
Ties		$ 2.00/hundred
Assay Tags		N/C
10% HCl		$ 5.00/liter
Dropping bottles		$ 1.00/each
Zn Test	A & B	$ 12.00/each liter

Conversion Factors

1 Troy oz = 31.10 g
1 oz/ton = 34.3 ppm = 34.3 g/tonne = 34,300 ppb
1 % = 10,000 ppm

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GEOCHEMICAL ANALYSES - Rocks and Soils

Group 1 Digestion

.50 gram sample is digested with 3 mls 3-1-2 HCl-HNO3-H2O at 95 deg.C for one hour and is diluted to 10 ml with water. This leach is near total for base metals, partial for rock forming elements and very slight for refractory elements. Solubility limits Ag, Pb, Sb, Bi, W for high grade samples.

Group 1A - Analysis by Atomic Absorption.

Element	Detection	Element	Detection	Element	Detection
Antimony*	2 ppm	Copper	1 ppm	Molybdenum	1 ppm
Bismuth*	2 ppm	Iron	0.01 %	Nickel	1 ppm
Cadmium*	0.1 ppm	Lead	2 ppm	Silver	0.1 ppm
Chromium	1 ppm	Lithium	2 ppm	Vanadium	2 ppm
Cobalt	1 ppm	Manganese	5 ppm	Zinc	2 ppm

First Element $2.25 Subsequent Element $1.00

Group 1B - Hydride generation of volatile elements and analysis by ICP.
This technique is unsuitable for sample grading over .5% Ni or Cu. Cu Massive Sulphide.

Element	Detection
Arsenic	0.1 ppm
Antimony	0.1 ppm
Bismuth	0.1 ppm
Germanium	0.1 ppm
Selenium	0.1 ppm
Tellurium	0.1 ppm

First Element $4.75 All Elements $5.50

Group 1C - Hg   Detection limit - 5 ppb   Price $2.50

Hg in the solutions are determined by cold vapour AA using a F & J scientific Hg assembly. The aliquots of the extract are added to a stannous chloride/hydrochloric acid solution. The reduced Hg is swept out of the solution and passed into the Hg cell where it is measured by AA.

Group 1D - ICP Analysis

Element	Detection
Ag	0.1 ppm
Cd,Co,Cr,Cu,Mn,Mo,Ni,Sr,Zn	1 ppm
As,Au,B,Ba,Bi,La,Pb,Sb,Th,V,W	2 ppm
U	5 ppm
Al,Ca,Fe,K,Mg,Na,P,Ti	0.01 %

Any 2 elements	$3.25
5 elements	4.50
10 elements	5.50
All 30 elements	6.25

Group 1E - Analysis by ICP/MS

Element	Detection
Ga,Ge	1 ppm
Au,Bi,Cd,Hg,In,Ir,Os,Re,Rh,Sb,Te,Th,Tl,U	0.1 ppm

All Elements 15.00 (minimum 20 samples per batch or $15.00 surcharge)

Hydro Geochemical Analysis

Natural water for mineral exploration

26 element ICP - Mo,Cu,Pb,Zn,Ag,Co,Ni,Mn,Fe,As,Sr,Cd,V,Ca,P, Li,Cr,Mg,Ti,B,Al,Na,K,Ce,Be,Si $8.00

F by Specific Ion Electrode	- detection	20 ppb	$3.75
U by UA3	- detection	.01 ppb	5.00
pH		.1 pH	1.50
Au	- detection	.001 ppb	4.00

- Minimum 20 samples or $5.00 surcharge for ICP or AA and $15.00 surcharge for ICP/MS. All prices are in Canadian Dollars

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Group 2 - Geochemical Analysis by Specific Extraction and Instrumental Techniques

Element	Method	Detection	Price
Barium	0.100 gram samples are fused with .6 gm LiB02 dissolved in 50 mls 5% HNO3 and analysed by ICP. (other whole rock elements are also determined)	10 ppm	$4.00
Boron	.5 g/Na2O2 fustion - 50ml in 20% HCl	2 ppm	4.00
Carbon	LECO (total as C or CO2)	.01 %	5.75
Carbon+Sulfur	Both by LECO	.01 %	6.50
Carbon (Graphite)	HCl leach before LECO	.01 %	8.00
Chromium	0.50 gram samples are fused with 1 gm Na2O2 dissolved in 50 ml 20% HCl, analysed ICP.	5 ppm	4.00
Fluorine	0.25 gram samples are fused with NaOH; leached solution is adjusted for pH and analysed by specific ion electrode.	10 ppm	4.50
Sulphur	LECO (Total as S)	.01 %	5.50
Sulphur insoluble	LECO (After 5% HCl leach)	.01 %	8.00
Tin	1.00 gram samples are fused with NH4I. The sublimed Iodine is leached with 5 ml 10% HCl, and analysed by Atomic Absorption.	1 ppm	4.00
Tl	.50 gram digested with 50% HNO3 - Dilute to 10 ml - graphite AA	.1 ppm	4.00
Tungsten	.50 gram samples are fused with Na2O2 dissolved in 20 ml H2O, analysed by ICP.	1 ppm	4.00

Group 3 - Geochemical Noble Metals

Element	Method	Detection	Price
Au*	10.0 gram samples are ignited at 600 deg.C, digested with hot aqua regia, extracted by MIBK, analysed by graphite furnace AA.	1 ppb	$ 4.50
Au** Pd,Pt,Rh	10.0 gram samples are fused with a Ag inquart with fire assay fluxes. After cupulation, the dore bead is dissolved and analysed by AA or ICP/MS.	1 ppb 2 ppb	6.00 - first element 2.50 - per additional 10.00 - for All 4

Larger samples - 20 gms add $1.50
30 gms add $2.50

Group 4A - Geochemical Whole Rock Assay

0.200 gram samples are fused with LiBO2 and are dissolved in 100 mls 5% HNO3.

SiO2, Al2O3, Fe2O3, CaO, MgO, Na2O, K2O, MnO, TiO2, P2O5, Cr2O5, LOI + Ba by ICP.

Price: $3.75 first metal $1.00 each additional $9.00 for All.

Group 4B - Trace elements

Element	Detection	Analysis	Price
Co,Cu,Ni,Zn,Sr	10 ppm	ICP	$3.75 first element or
Ce,Nb,Ta,Y,Zr	20 ppm	ICP	$1.00 additional to 4A
			$6.00 for All.

Group 4C - analysis by ICP/MS.

Be, Rb, Y, Zr, Nb, Sn, Cs, La, Ce, Pr, Nd, Sm, Eu, Gd, Tb, Dy, Ho, Er, Tm, Yb, Lu, Hf, Ta, W, Th, U

Detection: 1 to 5 ppm Price : $20.00 for All.

* Minimum 20 samples or $5.00 surcharge for ICP or AA and $15.00 surcharge for ICP/MS. All prices are in Canadian Dollars

APPENDIX II

ROCK SAMPLE DESCRIPTIONS

NORANDA EXPLORATION COMPANY, LIMITED

PROJECT # 124

N.T.S. 82F/3

LAB REPORT # ____________

DATE June 5/90

PROJECT KATIE

ROCK SAMPLE REPORT

SAMPLE NO.	LOCATION & DESCRIPTION	% Sulph.	TYPE	WIDTH (m)	Cu ppm	Au ppb	Ag ppm					SAMPLED BY
R102726	L112+00N 85+14E BRG 354° Dist 25 m. Outcrop chloritized -slightly pyritized andesite tuff. Propylitic alteration including epidote <1% pyrite. Trace malachite.		Chip	2.0	31	2	0.2					Weltens
R120727	L112+00N 84+61E Andesite tuff slightly chloritized lapilli tuff size fragments slight amount epidote calco bleb up to 3 mm disseminated pyrite & calco. <1% calco, trace pyrite.		Chip 1/2x 1/2 m		216	1	0.3					Weltens
R120728	L111+00N 92+35E 5m Brg 23° outcrop. Ash tuff felsic in composition, slightly chloritized. Trace disseminated pyrite, a quartz carbonate vein, vein of chlorite 4 mm wide.		Chip	2.0	18	4	0.1					Weltens

NORANDA EXPLORATION COMPANY, LIMITED

PROJECT # 124

N.T.S. 82F/3

LAB REPORT # ____________

DATE June 5&6/90

PROJECT KATIE

ROCK SAMPLE REPORT

SAMPLE NO.	LOCATION & DESCRIPTION	% Sulph.	TYPE	WIDTH (m)	Cu ppm	Au ppb	Ag ppm					SAMPLED BY
R79839	113+02N 87+45E Andesite tuff. Propyliticized - slightly chloritic, minor carbonate. ≤1% Py, trace Cpy. Sulfides occurs as disseminations & minor fracture filling.	1%	Chip	1/2	35	12	0.2					McIntyre
R120776	114+00N 86+50E. Andesite tuff. Slightly chloritic, carbonate occurs as fracture filling. Trace of pyrite.	Tr	Panel	0.50	223	7	0.3					Louden
R120777	114+00N 83+95 Andesite Tuff, slightly chloritic, epidote & pyrite occur as fracture filling. <1% Py.	4%	Chip	1.0	189	6	0.1					Louden
R120778	114+00N 79+05E Andesite Tuff slightly chloritic, Tr Py, Tr Cpy.	Tr	Chip	1.25	31	1	0.1					Louden
R79840	110+00N 85+68E Brg 020° dist 89 m. Andesite Tuff to augite porphyry. Trace pyrite as disseminations; Forest covered	Tr	Chip	0.30	96	8	0.1					McIntyre

NORANDA EXPLORATION COMPANY, LIMITED

PROJECT # 124

N.T.S. 82F/3

LAB REPORT # ____________

DATE June 6&8/90

PROJECT KATIE

ROCK SAMPLE REPORT

SAMPLE NO.	LOCATION & DESCRIPTION	% Sulph.	TYPE	WIDTH (m)	Cu ppm	Au ppb	Ag ppm					SAMPLED BY
R79840(con't)	talus slope.											
R79841	110+00N 89+71E Andesite Ash to Lapilli Tuff, exhibits hematitization, 1-2% Py, Tr Cpy, subcrop sample. Sulphides occur as disseminations within the Tuff.	2%	Chip	0.50	81	2	0.2					McIntyre
R79842	L114+00N 96+45E Brg 096 19 m Andesite Lapilli Tuff, silicified and carbonatized with <1% pyrite.	<1%	Chip	0.40	56	1	0.1					McIntyre
R120779	L98+00N 103+42E Andesite Lapilli Tuff, moderately chloritic, weakly to moderately sheared, some hematite. ≤1% Py.	≤1%	Panel	0.30	8	9	0.1					Louden
R120780	L99+00N 104+52E. Andesite Tuff moderately sheared, chloritic, hematitized and carbonatized. <1% Py.	<1%	Chip	1.0	121	11	0.4					Louden

NORANDA EXPLORATION COMPANY, LIMITED

PROJECT # 124

N.T.S. 82F/3

LAB REPORT #

DATE June 8&12/90

PROJECT KATIE

ROCK SAMPLE REPORT

SAMPLE NO.	LOCATION & DESCRIPTION	% Sulph.	TYPE	WIDTH (m)	Cu ppm	Au ppb	Ag ppm					SAMPLED BY
R120781	L99+00N 103+90E. Andesite Tuff Intensely sheared, sericitized & hematized with <1% pyrite.	<1%	Chip	1.0	89	10	0.1					Louden
R120729	L101+00N 104+85E. Andesite Tuff/Augite Porphyry. Weakly chloritic, epidotized along fracture <1% Py.	<1%	Chip	1.5	75	1	0.2					Weltens
R120730	L100+00N 81+82E fine grained diorite hematized along fractures. 1% calco.	10%	Float		53	8	0.1					Weltens
R79843	L97+00N 103+69E; Moderately sheared Andesite Tuff, moderately chloritic & hematitic with some quartz-carbonate infilling 1-2% Py.	1-2%	Chip	0.50	193	16	0.1					McIntyre
R79844	L97+00N 103+63E; Moderately to strongly sheared Andesite Tuff, moderately chloritic with quartz-carbonate occurring as disseminations, fracture fill-	>2%	Chip	0.50	45	11	0.1					McIntyre

NORANDA EXPLORATION COMPANY, LIMITED

PROJECT # 124 N.T.S. 82F/3

LAB REPORT # ____________ DATE June 12/90

PROJECT KATIE

ROCK SAMPLE REPORT

SAMPLE NO.	LOCATION & DESCRIPTION	% Sulph.	TYPE	WIDTH (m)	Cu ppm	Au ppb	Ag ppm					SAMPLED BY
R79844(con't)	ing and as discrete lenses ≤1 mm in length. 1-2% Py & <1% (Galena)?											
R120731	L96+00N 94+63E; Moderately chloritic Andesite Tuff with 2% Py, Tr Cpy, & trace galena?	>2%	Chip	1.0	132	5	0.1					Weltens
R79845	Trench 105+00N 92+50E - 0+57 m -Sericitic Zone. Andesite Tuff shear, sericiticized and partly silicified. Strong Goethic alteration, and moderate to strong sericitic alteration. No apparent sulphides.	-	Chip	1.5	209	460	19.2					McIntyre
R79846	105+00N 89+37E Andesite Tuff. Sample of subcrop 1.0 m in length, contains hematite, goethic & magnesite. 1% Py, Tr Cpy, <1% malachite.	2%	Grab	1.0	1949	93	1.8					McIntyre

NORANDA EXPLORATION COMPANY, LIMITED

PROJECT # 124

N.T.S. 82F/3

LAB REPORT # ____________

DATE June 25&26/90

PROJECT KATIE

ROCK SAMPLE REPORT

SAMPLE NO.	LOCATION & DESCRIPTION	% Sulph.	TYPE	WIDTH (m)	Cu ppm	Au ppb	Ag ppm					SAMPLED BY
R79847	L102+00N 98+85E. Pyritized Andesite Tuff moderately goethitic, weakly sheared. Py occurs as disseminations.	1-2%	Chip	1.0	216	630	1.0					McIntyre
R79848	105+05N 96+83E. Silicified Andesite Tuff, weakly fractured quartz flooded, quartz stringers, strong jarosite alteration, weakly hematitic, with <1% Mag, <1% Py, Tr Cpy.	2%	Chip	1.0	586	10	0.4					McIntyre
R79849	100+00N 84+40E. Andesite Tuff. Weakly sheared with 1% magnetite along fractures.	1%	Chip	0.50	634	23	0.3					McIntyre
R79850	99+90N 83+75E. Epidotized Melanocratic Diorite with massive magnetite occurring as fracture filling - Magnetite Crackle Breccia - intensely magnetic 10-15% magnetite & a trace of malachite.	>10%	Grab	Float	1402	15	0.8					McIntyre

NORANDA EXPLORATION COMPANY, LIMITED

PROJECT # 124

N.T.S. 82F/3

LAB REPORT #

DATE June 26/90

PROJECT KATIE

ROCK SAMPLE REPORT

SAMPLE NO.	LOCATION & DESCRIPTION	% Sulph.	TYPE	WIDTH (m)	Cu ppm	Au ppb	Ag ppm					SAMPLED BY
R121226	98+78E 85+00E. Epidotized Melanocratic Diorite, moderately magnetic.	-	Chip	1.0	269	92	0.1					McIntyre
R121227	98+90N 87+28E. Moderately to strongly epidotized Diorite - finely crystalline with <1% Py, Tr Cpy, Tr malachite.	1%	(Grab along sub-crop)	2.0	518	32	0.1					McIntyre
R121228	107+22N 82+80E. Strongly Hematitic and Goethitic, & Pyritized Aplite (silicified & bleached) 5% Py occurring as disseminations. Sample of float - buried overgrown talus?? slope.	5%	Grab	Float	18	9	0.1					McIntyre

NORANDA EXPLORATION COMPANY, LIMITED

PROJECT # 124

N.T.S. 82F/3

LAB REPORT #

DATE July 3/90

PROJECT KATIE

ROCK SAMPLE REPORT

SAMPLE NO.	LOCATION & DESCRIPTION	% Sulph.	TYPE	WIDTH (m)	Cu ppm	Au ppb	Ag ppm					SAMPLED BY
R121229	103+95N 84+87E. Aplite composed anhedral 2-3 mm quartz crystals and subhedral laths of feldspars. Pyrite occurs as disseminations in cubes 1/2 mm to 1 mm in size and amounts to 2-3%.	3%	Float angular cobbles	1/4	145	2	0.6					McIntyre
R121230	103+05N 82+85E. Siliceous Breccia. Fragments of subangular to angular aplite and/or silica set in a matrix of, in order of abundance, goethite, jarosite, and minor hematite. the quartz & feldspar crystals are poorly developed finely to moderately crystalline, anhedral crystals.	-	Float	1/4	34	5	0.1					McIntyre

APPENDIX III

DRILL LOGS

NORANDA EXPLORATION CO. LTD.

DIAMOND DRILL LOG

PROPERTY :
HOLE No. : KT-89-1
Grid System :
Collar Eastings : 9295.000
Collar Northings : 10826.000
Collar Elevations : 1428.200
Collar Bearing : 130.00
Grid Baseline : 0.00

Collar Inclination : -45.00
Grid Bearing : 0.00
Final Depth : 82.35
Claim No. :

Logged by :
Date : -
Downhole Survey :
Drilled By :
Core Size :

INTERVAL(m) FROM	TO	MAJOR/MINOR UNITS	DESCRIPTION	SAMPLE NUMBER	INTERVAL(m) FROM	TO	SAMPLE WIDTH	Cu %	Au g/tonne	Ag g/tonne
0.00	82.35	M.Dior								
0.00	46.17	C/I	Casing Interval.							
46.17	68.80	M.Dior	Melanocratic Diorite.	18501	46.17	47.80	1.63	0.07	0.062	0.4
			Finely to moderately crystaline hornblende	18502	47.80	49.30	1.50	0.04	0.012	0.3
			rich and moderately to strongly epidotized	18503	49.30	50.80	1.50	0.04	0.001	0.2
			melanocratic diorite. Unit consists of 40%	18504	50.80	52.30	1.50	0.13	0.025	0.5
			mafics and 60% feldspars. In color this	18505	52.30	53.80	1.50	0.05	0.001	0.2
			unit is speckled black and green.	18506	53.80	55.30	1.50	0.09	0.153	0.5
			52.94-56.80m Fault rubble - pea sized	18507	55.30	56.80	1.50	0.15	0.056	0.8
			frags of core interspaced	18508	56.80	58.30	1.50	0.13	0.037	0.5
			between pieces of core avg	18509	58.30	59.80	1.50	0.27	0.144	0.5
			3cm to 5cm. Orientation is	18510	59.80	61.30	1.50	0.05	0.020	0.3
			40 to 70 degrees averaging	18511	61.30	62.80	1.50	0.06	0.001	0.2
			60 degrees.	18512	62.80	64.30	1.50	0.09	0.098	0.4
			Mineralization consists of pyrite which	18513	64.30	65.80	1.50	0.06	0.002	0.3
			occurs as fracture filling within 1mm to	18514	65.80	67.30	1.50	0.08	0.032	0.2
			1.5cm veins and as disseminated grains.	18515	67.30	68.80	1.50	0.07	0.052	0.3
			Chalcopyrite occurs as fine disseminations							
			within the rock. K-feldspar alteration							
			occurs as wispy pink traces within qtz							
			veins. Orientation 60 and 65 degrees aca.							
			This unit is weakly to moderately							
			magnetic.							
			74.30 to 76.00m Fault with slickensides							
			oriented at 35, 30, 40							
			and 45 degrees aca.							
68.80	70.30	Mcdior	Microdiorite Dyke (Albitized Diabase?).	18516	68.80	70.30	1.50	0.07	0.092	0.3
			Finely crystaline. See 79.30 to 82.35m.							
70.30	79.30	M.Dior	Melanocratic Diorite.	18517	70.30	71.80	1.50	0.05	0.027	0.2
			See 46.17 to 68.80 meters.	18518	71.80	73.30	1.50	0.06	0.001	0.2
				18519	73.30	74.80	1.50	0.04	0.016	0.1
				18520	74.80	76.30	1.50	0.06	0.022	0.1
				18521	76.30	77.80	1.50	0.02	0.018	0.1
				18522	77.80	79.30	1.50	0.04	0.032	0.1
79.30	82.35	McDior	Microdiorite.	18523	79.30	80.80	1.50	0.06	0.230	0.2

NORANDA EXPLORATION CO. LTD.
DIAMOND DRILL LOG

PROPERTY :

HOLE No. : KT-89-1

INTERVAL(m) FROM	INTERVAL(m) TO	MAJOR/MINOR UNITS	DESCRIPTION	SAMPLE NUMBER	INTERVAL(m) FROM	INTERVAL(m) TO	SAMPLE WIDTH	ASSAYS Cu %	ASSAYS Au g/tonne	ASSAYS Ag g/tonne
			Finely crystalline equigranular, feldspars are anhedral, hornblende crystals are subhedral to euhedral. Upper contact may be approx 65 degrees. Orientations are very difficult to obtain as the core has been split once already.))) 82.35m E.O.H.(((	18524	80.80	82.35	1.55	0.11	0.119	0.2

NORANDA EXPLORATION CO. LTD.

DIAMOND DRILL LOG

PROPERTY :
HOLE No. : KT-89-1
Grid System :
Collar Eastings : 9295.000
Collar Northings : 10826.000
Collar Elevations : 1428.200
Collar Bearing : 130.00
Grid Baseline : 0.00

Collar Inclination : -45.00
Grid Bearing : 0.00
Final Depth : 82.35
Claim No. :

Logged by :
Date : -
Downhole Survey :
Drilled By :
Core Size :

GEOTECHNICAL SAMPLES

FROM	TO	Pyrite %	Chalco %	Malachi %	Bornite %	Magneti %	Mangane %	Maripos %
46.17	47.80	<1	Tr					1
47.80	49.30	Tr			Tr			
49.30	50.80	Tr						
50.80	52.30					<1	2	
52.30	53.80	Tr				1	2	
53.80	55.30	<1				1		
55.30	56.80	<1					2	
56.80	58.30	1-2	Tr				1	
58.30	59.80	1-2	<1					
59.80	61.30	2-4				1		
61.30	62.80	1-2	Tr			<1		
62.80	64.30	1-2	Tr					
64.30	65.80	1-2				Tr		
65.80	67.30	1-2						
67.30	68.80	4						
68.80	70.30	4-5						
70.30	71.80	1						Tr
71.80	73.30	<1	Tr					
73.30	74.80	1						
74.80	76.30	1	Tr					
76.30	77.80	1	Tr					
77.80	79.30	1	Tr					
79.30	80.80	1	1			1		
80.80	82.35	3	<1					

GEOCHEMICAL SAMPLES

FROM	TO	Silfcn 1 to 5	Quartz 1 to 5	Epidote 1 to 5	Sericit 1 to 5	Chlorit 1 to 5	Carb 1 to 5	Jarosit 1 to 5	Goethit 1 to 5	Hematit 1 to 5	K-spar 1 to 5	Clay 1 to 5	Fra Veini
46.17	47.80	4		2	1				1				
47.80	49.30	4		2					2				
49.30	50.80	4		3					2				
50.80	52.30	3	1	2					3				
52.30	53.80	3	1	2					2				
53.80	55.30	3	1	2					2				
55.30	56.80	3	1	2					4				
56.80	58.30	4	2	2	2				1				
58.30	59.80	4	1	3			2		1				
59.80	61.30	4	1	3					1				
61.30	62.80	4	2	3	2		1		2				
62.80	64.30	4	1	2			1		1				
64.30	65.80	4	1	3	1		1		1				
65.80	67.30	4	1	3			1		1				
67.30	68.80	4	1	3	1		1		1	1			
68.80	70.30	4	1	2		2	2		1				
70.30	71.80	4	2	3									
71.80	73.30	4	1	3			1		1				
73.30	74.80	4	1	3									
74.80	76.30	4	1	3	1		2				1		
76.30	77.80	4	1	3	1						1		
77.80	79.30	4	1	3						1			
79.30	80.80	4	1		1		2			1	1		
80.80	82.35	4					1						

NORANDA EXPLORATION CO. LTD.
DIAMOND DRILL LOG

PROPERTY :
HOLE No. : KT-89-3
Grid System :
Collar Eastings : 9168.000
Collar Northings : 10533.000
Collar Elevations : 1523.900
Collar Bearing : 180.00
Grid Baseline : 0.00

Collar Inclination : -65.00
Grid Bearing : 0.00
Final Depth : 45.75
Claim No. :

Logged by :
Date : -
Downhole Survey :
Drilled By :
Core Size :

INTERVAL(m) FROM	TO	MAJOR/MINOR UNITS	DESCRIPTION	SAMPLE NUMBER	INTERVAL(m) FROM	TO	SAMPLE WIDTH	Cu %	Au g/tonne	Ag g/tonne
0.00	45.75	AndTuf								
0.00	9.15	C/I	Casing Interval.							
9.15	21.96	AndTuf	Leucoandesite Ash Tuff. Finely crystaline, equigranular with localized moderate to strong goethitic alteration. In color this unit varies from a light green color with a slight brown-gold hue to a very strong brown-gold color with bleached-bone white-laminations. 9.15 to 16.76m Zone of strong shearing 50 to 55 degrees aca. 18.10 to 25.50m Zone of strong shearing 55, 60, and 70 degrees aca.							
21.96	23.50	LampDk	Lamprophyre Dyke. Highly altered and weakly magnetic this unit crumbles at a touch. In color this unit is a moderate brown with black specks. Upper contact indistinguishable, and lower con is imprecise however, may parallel shearing in lamprophyre at 60 degrees or foliation in the unit @ 70 deg.							
23.50	45.72	AndTuf	Andesitic Ash Tuff.	18526	24.50	26.00	1.50	0.09	0.030	0.1
			Finely crystalline and equigranular this	18527	26.00	27.50	1.50	0.24	0.052	0.3
			unit is a moderate green in color.	18528	27.50	29.00	1.50	0.13	0.045	0.1
			29.00 to 33.50m Zone of moderate	18529	29.00	30.50	1.50	0.08	0.037	0.2
			shearing with orien-	18530	30.50	32.00	1.50	0.22	0.230	4.8
			tation of 60, 80, and	18531	32.00	33.50	1.50	0.21	0.066	4.7
			85 degrees aca.	18532	33.50	35.00	1.50	0.12	0.038	0.2
			Mineralization: Py, Cpy, and Malachite.	18533	35.00	36.50	1.50	0.04	0.022	0.1
			Chalcopyrite is intimately associated with	18534	36.50	38.00	1.50	0.11	0.035	0.1
			with qtz stringers. Py is finely	18535	38.00	39.50	1.50	0.08	0.060	0.1
			disseminated throughout.	18536	39.50	41.00	1.50	0.07	0.130	0.1
			)))45.72m E.O.H.(((	18537	41.00	42.50	1.50	0.07	0.069	0.1
				18538	42.50	44.00	1.50	0.04	0.023	0.1
				18539	44.00	45.72	1.72	0.05	0.021	0.1

N O R A N D A E X P L O R A T I O N C O. L T D.

DIAMOND DRILL LOG

PROPERTY :
HOLE No. : KT-89-3
Grid System :
Collar Eastings : 9168.000
Collar Northings : 10533.000
Collar Elevations : 1523.900
Collar Bearing : 180.00
Grid Baseline : 0.00

Collar Inclination : -65.00
Grid Bearing : 0.00
Final Depth : 45.75
Claim No. :

Logged by :
Date : -
Downhole Survey :
Drilled By :
Core Size :

GEOTECHNICAL SAMPLES

FROM	TO	Pyrite %	Chalco %	Malachi %	Bornite %	Magneti %	Mangane %	Maripos %
9.15	16.76						1	
16.76	21.96	1					1	
21.96	23.50							
23.50	26.00	1-2	Tr					
26.00	27.50	4	<1					
27.50	29.00	2	Tr			Tr		
29.00	30.50	2-3					Tr	
30.50	32.00	4	Tr				Tr	
32.00	33.50	4	Tr					
33.50	35.00	4						
35.00	36.50	2	Tr					Tr
36.50	38.00	2	<1					
38.00	39.50	2	<1					
39.50	41.00	3	Tr					
41.00	42.50	4	<1					
42.50	44.00	3	1					
44.00	45.72	2	1					

GEOCHEMICAL SAMPLES

FROM	TO	Silfcn 1 to 5	Quartz 1 to 5	Epidote 1 to 5	Sericit 1 to 5	Chlorit 1 to 5	Carb 1 to 5	Jarosit 1 to 5	Goethit 1 to 5	Hematit 1 to 5	K-spar 1 to 5	Clay 1 to 5	Frac Veinin
9.15	16.76	3							3				
16.76	21.96	3							4				
21.96	23.50	1							1				
23.50	26.00	4	2						1				
26.00	27.50	4	2				1		1				
27.50	29.00	4	1						1				
29.00	30.50	4	2						2				
30.50	32.00	4	2						1				
32.00	33.50	4	2										
33.50	35.00	4	2										
35.00	36.50	4	2										
36.50	38.00	4	2				2						
38.00	39.50	4	2				2						
39.50	41.00	4	2				2						
41.00	42.50	4	2	1									
42.50	44.00	4	2		2								
44.00	45.72	4			2		1						

NORANDA EXPLORATION CO. LTD.
DIAMOND DRILL LOG

PROPERTY :
HOLE No. : KT-89-4
Grid System :
Collar Eastings : 8911.000
Collar Northings : 10505.000
Collar Elevations : 157105.000
Collar Bearing : 245.00
Grid Baseline : 0.00

Collar Inclination : -45.00
Grid Bearing : 0.00
Final Depth : 121.00
Claim No. :

Logged by :
Date : -
Downhole Survey :
Drilled By :
Core Size :

INTERVAL(m) FROM	INTERVAL(m) TO	MAJOR/MINOR UNITS	DESCRIPTION	SAMPLE NUMBER	INTERVAL(m) FROM	INTERVAL(m) TO	SAMPLE WIDTH	Cu %	Au g/tonne	Ag g/tonne
0.00	121.00	AndTuf								
0.00	6.09	C/I	Casing Interval.							
6.09	11.81	LAndTf	Leucoandesitic Ash Tuff.	18476	6.09	7.59	1.50	0.01	0.007	0.1
			Finely crystaline and porphyritic with 2mm	18477	7.59	9.09	1.50	0.00	0.008	0.1
			sized phenocrysts of feldspar.This unit is	18478	9.09	10.59	1.50	0.00	0.005	0.1
			bleached, moderately silicified, and has moderate to intense goethitic alteration giving this unit its' characteristic reddish hue. In color this unit ranges from a green-grey to a pink-red with white to light green feldspar phenocrysts. Mineralization: <1% Chalcopyrite.							
11.81	15.34	BasATf	Basaltic Ash Tuff. This unit is grey black to black in color, and aphanitic with gun steel blue colored maganese staining and pyrite mineralization occurring as fracture filling and as disseminations. 10.40 to 15.34m Unit is sheared exhibiting slicks along fracture planes Orientation 60, 60,and 70 degrees aca. Also 30, 45, 60,and 70 deg. Pyrite occurs as disssseminated grains thru out with mod goethitic & jarositic altn.							
15.34	25.27	LampDk	Lamprophyre Dyke. This unit consists of 70% mafics, predominately biotite and chlorite, and and 30% feldspars. Unit is moderately to intensely altered. Upper contact indis-tinct but approx 30 to 50 degrees aca. Qtz veinlets oriented at 55 degrees aca. Lamph rophyre dyke is weakly to moderately mag-netic. This unit is not competant, parts							

N O R A N D A E X P L O R A T I O N C O. L T D.
DIAMOND DRILL LOG

PROPERTY :
HOLE No. : KT-89-4

INTERVAL(m) FROM	INTERVAL(m) TO	MAJOR/MINOR UNITS	DESCRIPTION	SAMPLE NUMBER	INTERVAL(m) FROM	INTERVAL(m) TO	SAMPLE WIDTH	ASSAYS Cu %	Au g/tonne	Ag g/tonne
			of which are so altered it crumbles at the							
			touch. Lower contact 45 degrees aca.							
25.27	49.98	LAndTf	Leucoandesitic Ash Tuff.	18479	30.24	31.74	1.50	0.32	0.125	0.6
			Porphyritic wrt feldspars with the feld-	18480	31.74	33.24	1.50	0.20	0.133	1.1
			spar phenocrysts being 1-2mm in size. A	18481	33.24	34.74	1.50	0.23	0.380	3.1
			trace of py occurs as disseminations. Unit	18482	34.74	36.24	1.50	0.21	0.144	1.9
			is bleached and silicified, with moderate	18483	36.24	37.74	1.50	0.06	0.001	0.1
			to intense goethitic alteration throughout	18484	37.74	39.24	1.50	0.15	0.121	0.1
			29.00 to 34.74m Shear zone with slicks oriented @ 30, 45, and 50 deg aca. Also 70, & 50 deg aca.							
			A trace of chalcopyrite occurs as discrete 1/4 to 1/2mm lenses within fractures.							
			40.84 to 45.41m Shear zone consisting of slicks & badly broken core oriented @ 45, 60, 70, and 35 degrees aca.							
49.98	50.23	LampDk	Lamprophryr Dyke. Same as 15.34 to 25.27m. Upper contact indistinct, lower contact 35 degrees? aca. Unit is cut by qtz veinlets 3cm in width at 70 degrees aca.							
50.23	121.00	AndATf	Andesite Ash Tuff.	18485	81.14	82.64	1.50	0.04	0.001	0.1
			Intermediate in composition and finely	18486	82.64	84.14	1.50	0.03	0.002	0.1
			crystaline this unit is grey in color. A	18487	84.14	85.64	1.50	0.02	0.001	0.1
			quartz-pyrite veinlet 1cm in width cuts	18488	85.64	87.14	1.50	0.03	0.009	0.1
			this unit at 45 degrees aca. This andesite	18489	95.14	96.64	1.50	0.02	0.001	0.1
			tuff unit grades into a moderate green	18490	96.64	98.14	1.50	0.07	0.001	0.1
			color and finally into a grey-green color.	18491	98.14	99.66	1.52	0.06	0.004	0.1
			>>>121.00m E.O.H.<<<	18492	102.13	103.63	1.50	0.04	0.001	0.1
				18493	103.63	105.13	1.50	0.06	0.001	0.1

PROPERTY :
HOLE No. : KT-89-4

GEOTECHNICAL SAMPLES

FROM	TO	Pyrite %	Chalco %	Malachi %	Bornite %	Magneti %	Mangane %	Maripos %
25.27	29.00	<1					2	
29.00	34.74	1	<1	<1			2	
34.74	37.04	>1	<1			<1		
37.04	40.84	2-3	<1					
40.84	45.41	1-2					1	
45.41	49.98	1						
49.98	50.23	<1						
50.23	52.89	1						
52.89	58.00	1-2						
58.00	63.70	2-3						
63.70	69.43	1						
69.43	75.22	3-4						
75.22	80.60	3-4						
80.60	86.22	3						
86.22	92.01	2-3						
92.01	97.94	2-3	Tr					
97.94	103.30	3						
103.30	108.77	2-3						
108.77	114.00	3						
114.00	120.16	2						
120.16	121.00	2						

GEOCHEMICAL SAMPLES

FROM	TO	Silfcn 1 to 5	Quartz 1 to 5	Epidote 1 to 5	Sericit 1 to 5	Chlorit 1 to 5	Carb 1 to 5	Jarosit 1 to 5	Goethit 1 to 5	Hematit 1 to 5	K-spar 1 to 5	Clay 1 to 5	Frac Veinin
25.27	29.00	4							4				
29.00	34.74	3	2			2		2	5				
34.74	37.04	4							2				
37.04	40.84	4	2				2	1	2				
40.84	45.41	4			1		2	1	4				
45.41	49.98	4	2				2		2				
49.98	50.23	3	2										
50.23	52.89	4	2				2		2				
52.89	58.00	4	2				2						
58.00	63.70	4	2			2	2						
63.70	69.43	4	2			2	2						
69.43	75.22	4	2			1	1						
75.22	80.60	4	2										
80.60	86.22	4	2										
86.22	92.01	4	2		1	2	2						
92.01	97.94	4	2			1	2						
97.94	103.30	4	2-3			1	2			1		2	
103.30	108.77	4	2			1	1						
108.77	114.00	4	2			1	1			1			
114.00	120.16	4	2			1	1						
120.16	121.00	4	2			1	1						

APPENDIX IV

ANALYSIS CERTIFICATES

NORANDA VANCOUVER LABORATORY

PROPERTY/LOCATION:KATIE | CODE : 9006-027

Project No. :124 | Sheet:1 of 2 | Date rec'd:JUN 12
Material :98 SOILS | Geol.:T.Mc. | Date compl:JUN 21

Values in PPM, except where noted.

T.T. No.	SAMPLE No.	PPB Au
12C	9800N -9100E	5
13	9125	5
14	9150	5
15	9175	5
16	9200	5
17	9225	5
18	9250	5
19	9275	5
20	9300	5
21	9325	5
22	9350	5
23	9375	20
24	9400	5
25	9425	5
26	9450	5
27	9475	5
28	9500	5
29	9525	5
30	9550	5
31	9575	5
32	9600	5
33	9625	5
34	9650	5
35	9675	5
36	9800N-9700E	60
37	11200N-7700E	5
38	7800	5
39	7900	5
40	8000	5
41	8100	5
42	8200	5
43	8300	5
44	8400	5
45	11200N-8500E	5
46	11300N-7700E	5
47	7800	5
48	7900	5
49	8000	5
50	8100	5
52F	11300N-8200E	5
53	8300	5
54	8400	5
55	8500	5
56	8600	5
57	8700	5
58	8800	5
59	8900	5
60	11300N-9000E	5

T.T. No.	SAMPLE No.	PPB Au
61	11300N-9100E	5
62	9200	5
63	9300	20
64	9400	5
65	9500	5
66	9600	5
67	9700	5
68	9800	5
69	9900	5
70	10000	5
71	10100	5
72	10200	5
73	10300	5
74	10400	5
75	10500	5
76	11300N-10600E	5
77	9900N-8050E	5
78	8150	5
79	8250	5
80	8350	5
81	9900N-8450E	5
82	10075N-8050E	5
83	8150	5
84	8250	5
85	8350	5
86	10075N-8450E	5
87	11000N-7800E	5
88	7900	5
89	8000	5
90	8100	5
91	8200	5
92	8300	5
93	8400	5
94	8500	5
95	11000N-8600E	5
96	11100N-7750E	5
97	7850	5
98	7950	5
99	8050	5
100	8150	5
52C	11100N-8250E	5
53	8350	5
54	11100N-8450E	5
55	11400N-1000E	5
56	10100	5
57	10200	5
58	10300	5
59	10400	5
60	10500	5
61	11400N-10600E	5

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716

GEOCHEMICAL ANALYSIS CERTIFICATE

Noranda Exploration Co. Ltd. PROJECT 9006-026 124 File # 90-1757

P.O. Box 2380, 1050 Davie St., Vancouver BC V6B 3T5

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au* ppb
R 79839	1	35	10	111	.2	78	20	1220	7.15	2	5	ND	1	153	.2	2	2	142	3.22	.107	6	171	3.89	38	.18	22	3.23	.03	.02	1	12
R 79840	1	96	2	51	.1	18	13	635	4.58	11	5	ND	1	27	.2	2	2	91	.52	.114	5	47	1.90	23	.14	17	2.03	.03	.05	1	8
R 79841	1	81	12	47	.2	14	18	770	5.94	8	5	ND	1	59	.2	2	2	88	1.52	.097	3	24	1.94	24	.21	25	2.56	.03	.05	1	2
R 79842	1	56	4	83	.1	14	14	825	5.52	11	5	ND	1	178	.2	2	2	41	2.47	.087	6	22	1.27	68	.01	6	1.79	.02	.15	1	1
R 120726	1	31	7	69	.2	7	12	755	5.85	3	5	ND	1	55	.2	3	2	69	.81	.167	12	11	1.87	31	.21	6	2.31	.03	.07	1	2
R 120727	1	216	7	69	.3	13	17	801	6.30	7	5	ND	1	41	.2	2	2	84	1.01	.085	3	21	1.75	14	.15	26	2.52	.03	.04	1	1
R 120728	1	18	11	58	.1	6	9	985	3.91	7	5	ND	1	145	.2	3	2	17	1.98	.062	4	8	1.11	70	.01	25	.98	.02	.13	1	4
R 120729	1	75	3	97	.2	12	20	761	5.92	4	5	ND	1	170	.2	4	2	100	.91	.102	7	44	2.15	48	.22	4	2.09	.02	.03	1	1
R 120730	1	53	2	1	.1	5	4	33	2.27	5	5	ND	2	39	.2	2	2	29	.21	.124	2	2	.36	35	.12	22	.55	.04	.10	1	8
R 120776	1	223	10	97	.3	13	23	1009	7.79	2	5	ND	1	196	.2	2	2	133	2.31	.121	6	21	2.58	101	.17	24	2.87	.02	.06	1	7
R 120777	1	189	11	86	.1	14	19	796	5.93	2	5	ND	1	98	.2	2	2	91	1.81	.137	7	31	2.04	37	.17	5	2.43	.02	.07	1	6
R 120778	1	31	8	64	.1	22	13	629	4.78	14	5	ND	2	83	.2	2	2	66	1.35	.179	13	46	1.55	45	.23	2	2.10	.10	.08	1	1
R 120779	1	8	6	57	.1	36	11	906	5.08	2	5	ND	1	179	.2	2	2	44	2.84	.128	5	58	2.65	42	.01	24	1.73	.03	.18	1	9
R 120780	1	121	18	113	.4	13	21	1455	7.32	22	5	ND	1	133	.2	2	2	80	3.56	.139	3	29	3.02	154	.01	21	2.42	.02	.15	1	11
R 120781	1	89	13	43	.1	25	28	867	7.35	5	5	ND	1	205	.2	4	2	16	2.64	.135	3	14	1.47	75	.01	31	.50	.02	.16	1	10
STANDARD C/AU-R	18	58	42	136	7.2	68	31	1053	3.75	37	17	6	36	47	18.2	15	21	58	.48	.099	37	55	.87	173	.09	33	1.80	.06	.13	12	500

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.
THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.
- SAMPLE TYPE: Rock AU* ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPLE.

DATE RECEIVED: JUN 14 1990 **DATE REPORT MAILED:** June 19/90 **SIGNED BY**.....C. Leong..... D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716

GEOCHEMICAL ANALYSIS CERTIFICATE

Noranda Exploration Co. Ltd. PROJECT 9006-027 124 File # 90-1816 Page 1

P.O. Box 2380, 1050 Davie St., Vancouver BC V6B 3T5

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm
9800N 9100E	1	47	31	106	.7	10	14	935	3.21	15	5	ND	4	9	.4	2	2	46	.08	.150	7	16	.39	100	.16	8	3.82	.01	.05	2
9800N 9125E	2	46	26	76	.3	13	20	1199	3.76	16	5	ND	3	11	.3	2	2	55	.09	.121	7	17	.47	118	.14	10	3.18	.01	.06	1
9800N 9150E	2	59	18	89	.4	18	28	1206	3.98	19	5	ND	4	11	.5	2	2	55	.08	.124	8	19	.54	130	.14	10	3.50	.01	.06	1
9800N 9175E	2	66	32	92	.2	18	17	954	4.36	20	5	ND	5	14	.5	2	2	61	.09	.116	9	20	.59	131	.15	12	3.34	.01	.08	2
9800N 9200E	2	63	24	87	.2	17	25	707	4.58	19	5	ND	4	20	.6	2	2	56	.12	.104	11	24	.70	180	.11	11	3.19	.01	.07	1
9800N 9225E	1	33	28	79	.1	11	14	1202	3.77	12	5	ND	3	13	.6	2	2	57	.12	.107	8	18	.42	132	.12	5	2.44	.01	.06	1
9800N 9250E	2	64	15	92	.1	16	18	843	4.23	17	5	ND	3	18	.2	2	2	55	.12	.138	9	21	.67	144	.12	7	2.84	.01	.07	2
9800N 9275E	2	46	24	88	.2	14	15	1344	4.31	11	5	ND	1	16	.3	2	2	61	.12	.127	8	20	.55	152	.10	3	2.23	.01	.07	1
9800N 9300E	2	72	30	87	.5	21	20	829	4.79	19	5	ND	5	14	.3	2	3	63	.10	.171	9	26	.78	129	.10	11	3.20	.01	.07	2
9800N 9325E	2	80	23	82	.3	18	18	708	4.83	17	5	ND	3	15	.5	2	2	68	.09	.111	10	26	.80	136	.11	8	2.79	.01	.07	1
9800N 9350E	2	49	18	95	.4	13	17	821	3.98	16	5	ND	3	15	.2	2	3	55	.11	.202	7	17	.49	146	.14	6	2.91	.01	.06	1
9800N 9375E	2	78	24	118	.6	15	26	1099	4.79	11	5	ND	2	14	.5	2	2	66	.11	.140	11	25	.73	237	.08	9	2.57	.01	.07	2
9800N 9400E	2	52	26	119	1.0	12	13	1698	4.28	13	5	ND	2	12	.2	2	2	55	.10	.261	9	27	.54	127	.12	3	2.67	.01	.07	2
9800N 9425E	2	81	28	110	.2	22	17	721	4.67	13	5	ND	2	17	.2	3	2	63	.15	.093	9	29	.78	157	.11	8	2.76	.01	.06	1
9800N 9450E	2	53	34	138	.7	16	15	760	4.33	13	5	ND	3	15	.4	2	9	57	.11	.140	9	26	.64	167	.13	11	2.80	.01	.06	1
9800N 9475E	1	44	32	211	.7	23	15	1425	3.62	9	7	ND	3	11	.4	2	2	46	.11	.237	7	29	.53	148	.19	6	3.26	.01	.09	1
9800N 9500E	1	36	33	160	.4	16	18	1667	3.56	5	5	ND	2	17	.5	2	2	50	.18	.100	9	25	.49	292	.17	9	2.14	.01	.08	1
9800N 9525E	2	93	33	149	.5	19	19	1661	4.65	16	5	ND	4	18	.4	2	11	61	.17	.201	10	28	.67	314	.11	10	2.62	.01	.07	2
9800N 9550E	2	68	32	144	.9	20	18	1494	4.63	21	6	ND	2	16	.8	3	2	60	.13	.187	9	30	.72	202	.11	7	2.64	.01	.06	1
9800N 9575E	1	42	20	127	.8	12	15	1472	3.96	12	5	ND	2	20	.4	2	2	53	.20	.167	8	22	.56	257	.13	7	2.24	.01	.07	1
9800N 9600E	1	41	26	150	.7	15	14	2321	3.36	8	5	ND	2	19	.2	2	2	49	.20	.215	8	22	.50	274	.12	9	2.39	.01	.07	1
9800N 9625E	1	78	25	124	.4	20	17	1879	3.89	14	5	ND	2	24	.2	2	7	53	.23	.179	9	28	.78	311	.11	10	2.39	.01	.07	1
9800N 9650E	2	81	20	155	.5	24	18	1255	4.46	14	5	ND	3	19	.8	2	2	59	.14	.159	9	36	.93	289	.12	5	2.20	.01	.08	1
9800N 9675E	2	75	25	124	.2	21	21	1505	4.65	17	5	ND	3	22	.3	3	3	57	.18	.376	9	30	.80	277	.12	7	2.52	.01	.08	1
9800N 9700E	2	104	26	130	.4	22	23	914	5.14	15	6	ND	1	29	.2	2	2	62	.30	.300	9	36	.99	279	.09	4	2.66	.01	.09	1
11200N 7700E	1	24	18	158	.5	10	11	1044	2.87	11	8	ND	1	55	.8	3	2	34	.84	.154	13	20	.44	98	.12	8	3.40	.02	.05	1
11200N 7800E	1	18	28	148	.2	10	14	1159	3.29	10	5	ND	1	29	.5	3	7	42	.36	.234	7	17	.42	139	.13	9	2.99	.01	.05	1
11200N 7900E	1	25	31	140	.6	17	14	683	4.27	30	5	ND	2	58	.5	3	2	50	.78	.082	15	46	.75	124	.09	7	2.97	.01	.05	1
11200N 8000E	1	48	33	211	.1	29	21	1314	4.63	63	5	ND	2	29	1.2	3	2	52	.43	.164	13	41	.96	109	.15	11	3.46	.01	.08	1
11200N 8100E	1	43	16	118	.1	139	27	638	4.91	18	5	ND	6	42	.8	2	2	76	.67	.060	23	155	2.66	115	.39	13	3.16	.01	.22	1
11200N 8200E	1	31	36	143	.4	28	15	1284	3.36	11	7	ND	3	11	.8	4	2	48	.10	.125	7	36	.73	115	.20	5	3.88	.01	.06	2
11200N 8300E	1	44	31	123	.2	25	18	1035	3.63	9	5	ND	4	10	.4	3	2	49	.09	.138	8	38	.68	99	.18	10	4.31	.01	.07	1
11200N 8400E	2	56	37	139	.1	23	19	2136	3.90	14	5	ND	4	14	.5	4	2	51	.14	.155	12	26	.80	164	.17	3	3.78	.01	.08	1
11200N 8500E	1	63	27	127	.1	24	19	1579	4.17	21	5	ND	5	20	.5	4	2	52	.19	.112	12	25	.90	169	.17	6	3.94	.01	.08	1
11300N 7700E	1	32	24	134	.4	14	15	989	3.47	5	6	ND	1	14	.6	3	2	45	.18	.107	12	20	.58	67	.13	7	3.00	.01	.05	1
11300N 7800E	1	60	24	120	1.1	15	13	768	3.10	20	5	ND	1	39	.8	6	2	37	.48	.111	27	70	.47	92	.14	8	4.14	.02	.05	1
STANDARD C	18	58	42	132	7.1	68	31	1054	3.93	39	22	7	37	48	17.6	16	20	58	.51	.084	38	56	.93	175	.09	39	1.89	.06	.14	11

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.
THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.
- SAMPLE TYPE: Soil Pulp

DATE RECEIVED: JUN 18 1990 DATE REPORT MAILED: June 20/90 SIGNED BY. C.Leong .D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm
11300N 7900E	2	73	19	164	.5	29	22	1607	4.61	43	5	ND	1	37	1.4	2	3	50	.55	.181	19	49	.77	113	.08	5	2.53	.01	.08	1
11300N 8000E	2	72	14	159	1.0	33	25	1278	3.68	40	5	ND	3	30	1.6	7	2	47	.41	.080	13	60	.58	136	.17	7	4.81	.01	.06	1
11300N 8100E	1	42	42	415	.4	57	22	1876	4.54	23	5	ND	4	21	1.1	2	2	62	.25	.165	9	60	1.25	248	.27	5	3.29	.01	.11	1
11300N 8200E	2	53	7	160	.6	27	19	1953	3.75	22	5	ND	3	18	.7	4	3	51	.17	.206	10	33	.72	188	.16	8	3.68	.01	.07	1
11300N 8300E	2	54	12	132	.1	24	15	701	5.01	34	5	ND	4	14	1.1	2	2	64	.16	.112	9	29	.93	132	.15	3	3.41	.01	.08	1
11300N 8400E	2	62	6	115	.1	27	20	1835	4.42	18	5	ND	3	18	.2	4	2	58	.20	.121	11	31	1.03	145	.16	7	3.68	.01	.08	1
11300N 8500E	1	56	12	156	.1	34	22	1544	4.42	21	5	ND	4	22	.8	2	2	58	.24	.158	10	37	1.16	220	.18	8	3.50	.01	.10	1
11300N 8600E	1	51	9	142	.3	27	19	1183	4.33	19	5	ND	3	24	.2	3	2	58	.27	.193	8	39	1.14	231	.14	6	3.57	.01	.08	1
11300N 8700E	1	47	23	117	.3	16	13	1264	3.30	19	5	ND	4	13	.5	2	2	51	.11	.150	7	18	.43	138	.22	21	5.03	.02	.06	1
11300N 8800E	1	47	10	122	.4	21	14	1234	3.21	12	5	ND	4	12	.9	6	2	47	.11	.179	9	19	.53	130	.16	5	4.16	.01	.06	1
11300N 8900E	1	102	3	118	.4	26	18	731	4.44	24	5	ND	3	22	.8	3	2	66	.21	.159	8	30	1.31	176	.12	5	3.39	.01	.06	1
11300N 9000E	1	38	7	123	.4	20	14	1258	3.32	7	5	ND	3	17	.4	5	2	45	.16	.190	10	17	.64	209	.16	8	3.70	.01	.07	1
11300N 9100E	1	41	5	123	.2	22	14	1186	3.50	11	5	ND	3	22	.8	2	2	48	.22	.188	10	18	.76	263	.16	7	3.42	.01	.08	1
11300N 9200E	1	63	6	109	.1	24	15	553	4.23	13	5	ND	4	32	1.1	2	2	62	.27	.070	13	25	1.30	139	.16	2	2.51	.01	.10	2
11300N 9300E	1	59	14	124	.2	23	17	591	4.22	11	5	ND	4	27	.7	2	2	60	.23	.099	9	23	1.19	186	.17	3	3.05	.01	.08	1
11300N 9400E	1	52	10	120	.5	18	16	891	3.32	8	5	ND	5	22	1.5	2	2	45	.18	.204	13	17	.63	126	.18	7	4.11	.02	.07	1
11300N 9500E	1	98	3	89	.1	20	17	519	4.49	13	5	ND	4	25	.3	2	2	69	.19	.063	15	30	1.51	116	.10	4	3.07	.01	.07	1
11300N 9600E	1	82	6	107	.1	21	19	930	5.02	14	5	ND	2	50	.3	2	2	66	.48	.079	15	26	1.34	137	.11	3	3.28	.01	.08	1
11300N 9700E	1	128	22	152	.2	36	20	1028	5.37	13	6	ND	5	34	1.1	2	2	81	.24	.146	12	38	1.56	265	.18	9	5.55	.01	.18	1
11300N 9800E	1	53	11	92	.4	15	16	560	4.08	14	6	ND	4	30	1.0	2	2	62	.26	.082	9	21	1.22	128	.14	2	2.52	.01	.08	1
11300N 9900E	1	69	8	133	.2	19	17	845	4.07	9	5	ND	5	23	.2	2	2	64	.20	.164	12	25	1.00	137	.16	10	3.85	.01	.11	1
11300N 10000E	1	59	11	132	.1	19	17	1470	3.81	13	5	ND	4	29	.9	2	2	58	.26	.129	10	23	.90	198	.16	6	3.24	.01	.10	1
11300N 10100E	2	49	2	159	.2	20	18	845	3.78	9	5	ND	4	23	.6	2	2	49	.21	.280	8	19	.69	201	.15	6	4.38	.01	.08	1
11300N 10200E	1	76	7	160	.3	24	17	893	4.55	13	5	ND	3	33	.5	2	2	61	.31	.089	14	26	.96	188	.16	8	4.26	.01	.11	1
11300N 10300E	1	24	16	179	.3	14	15	1749	3.60	12	5	ND	3	28	.7	2	2	51	.28	.280	7	20	.62	244	.14	9	2.94	.01	.07	1
11300N 10400E	1	56	8	150	.2	21	16	653	4.11	11	6	ND	4	21	.8	4	2	64	.22	.134	9	28	1.07	178	.14	4	3.36	.01	.08	1
11300N 10500E	1	31	12	106	.4	15	13	827	3.33	8	5	ND	4	25	.5	2	2	53	.22	.117	10	20	.61	171	.16	7	3.13	.01	.07	1
11300N 10600E	2	42	3	122	.5	17	16	827	4.14	10	5	ND	4	31	.2	2	2	60	.36	.232	8	25	.76	122	.14	6	3.50	.01	.08	2
9900N 8050E	2	139	20	174	1.1	26	18	1474	4.60	20	5	ND	1	25	.6	2	2	52	.32	.094	25	25	.75	77	.11	5	3.35	.01	.07	2
9900N 8150E	3	82	19	126	1.0	22	16	1349	4.17	16	5	ND	1	65	1.5	2	2	49	.82	.114	17	25	.67	123	.07	5	2.95	.01	.07	1
9900N 8250E	2	35	21	151	.3	13	18	1205	4.52	16	5	ND	4	17	.7	2	2	57	.13	.316	8	22	.60	180	.11	4	2.72	.01	.06	1
9900N 8350E	1	49	15	108	.4	15	17	1988	4.25	17	5	ND	3	17	.3	2	2	58	.13	.099	8	20	.65	149	.10	3	2.43	.01	.06	1
9900N 8450E	2	1224	12	166	.7	16	12	285	3.93	79	5	ND	4	18	.3	4	2	59	.15	.106	9	20	.54	205	.19	6	3.95	.01	.05	1
10075N 8050E	2	56	16	157	.6	17	19	1272	4.26	18	9	ND	2	30	.5	2	2	49	.31	.183	13	21	.61	100	.11	5	2.93	.01	.08	1
10075N 8150E	3	163	15	98	.4	25	21	692	5.18	14	5	ND	5	18	.5	2	2	53	.12	.241	8	21	.77	168	.13	2	3.25	.01	.06	1
10075N 8250E	3	223	18	56	.6	14	13	272	3.21	4	5	ND	5	15	.5	3	2	50	.10	.116	10	17	.60	144	.17	8	3.61	.01	.04	1
STANDARD C	18	58	38	132	7.3	67	30	1048	3.93	38	20	7	37	47	18.0	15	19	57	.51	.087	38	56	.92	174	.09	36	1.95	.06	.13	13

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm
10075N 8350E	1	235	6	63	.1	20	15	452	3.25	7	5	ND	4	15	.3	2	2	47	.08	.073	6	18	.52	102	.16	5	4.38	.01	.03	1
10075N 8450E	1	160	9	103	.2	26	17	388	4.42	18	5	ND	5	15	.6	2	2	57	.09	.120	8	26	.82	108	.13	4	3.79	.01	.07	1
11000N 7800E	1	28	10	187	.6	20	14	1330	3.27	4	5	ND	3	11	.9	2	2	40	.10	.203	9	19	.48	129	.15	4	4.33	.01	.05	1
11000N 7900E	1	28	9	135	.4	20	14	1747	3.69	6	5	ND	1	12	.5	2	2	45	.10	.127	9	23	.71	152	.09	3	2.59	.01	.04	1
11000N 8000E	1	30	13	170	.5	17	13	1297	3.42	7	5	ND	2	13	.8	2	2	45	.13	.182	9	19	.50	155	.14	5	3.28	.01	.05	1
11000N 8100E	1	35	18	160	.8	19	16	1253	3.52	11	5	ND	3	14	.9	2	2	45	.15	.131	8	22	.55	111	.14	4	4.09	.01	.06	1
11000N 8200E	1	40	10	87	.6	15	11	599	2.88	7	5	ND	3	8	.5	2	2	39	.05	.129	9	18	.39	74	.18	4	4.63	.01	.04	1
11000N 8300E	1	29	10	109	.5	23	14	917	3.29	12	5	ND	3	12	.7	2	2	44	.09	.158	7	26	.53	98	.17	5	4.26	.01	.06	1
11000N 8400E	1	42	5	103	.4	35	18	960	3.85	19	5	ND	3	17	.8	3	2	55	.14	.114	10	49	.99	132	.17	3	3.03	.01	.09	1
11000N 8500E	1	43	16	95	.4	25	22	1262	3.93	17	5	ND	2	16	1.0	2	2	55	.10	.130	8	35	.71	121	.14	2	3.05	.01	.06	1
11000N 8600E	1	65	16	116	.3	36	22	1116	3.96	17	5	ND	3	28	.9	2	2	53	.21	.158	8	47	.83	181	.17	4	3.21	.01	.09	1
11100N 7750E	1	26	22	157	.1	16	15	1277	3.26	12	5	ND	1	25	1.1	2	2	41	.30	.196	8	22	.47	146	.14	4	2.93	.01	.06	1
11100N 7850E	1	35	18	185	.8	16	14	1270	3.32	7	5	ND	1	35	1.2	2	2	40	.36	.132	12	27	.41	130	.14	2	2.73	.01	.05	1
11100N 7950E	1	59	20	218	.7	27	20	2127	4.07	22	5	ND	1	47	3.4	3	2	50	.54	.081	15	43	.81	170	.08	2	2.53	.01	.06	1
11100N 8050E	1	36	16	199	.3	26	17	1429	4.16	19	5	ND	1	22	1.0	2	2	53	.28	.083	10	30	.72	181	.12	4	2.61	.01	.05	1
11100N 8150E	1	37	11	135	.1	69	22	991	4.64	17	5	ND	2	22	.8	2	2	70	.21	.110	7	84	1.50	223	.27	4	3.13	.01	.12	1
11100N 8250E	1	43	24	170	.1	39	18	2086	4.05	22	5	ND	3	14	.8	2	3	57	.12	.174	7	59	.97	142	.18	5	2.98	.01	.07	1
11100N 8350E	1	42	26	129	.2	35	17	1042	3.60	19	5	ND	3	21	.9	2	2	51	.15	.154	8	47	.87	128	.19	3	3.87	.01	.07	1
11100N 8450E	1	42	22	156	.4	28	18	1673	3.77	20	5	ND	3	16	1.1	2	2	51	.12	.217	9	38	.77	137	.17	5	4.12	.01	.07	1
11400N 10000E	1	28	11	113	.3	17	16	2235	3.18	8	5	ND	2	53	.8	2	2	49	.45	.145	7	20	.59	290	.14	6	2.59	.01	.07	1
11400N 10100E	1	29	9	172	.2	16	14	1219	3.21	16	5	ND	3	31	.6	2	2	44	.24	.280	8	19	.49	226	.17	5	3.61	.02	.07	1
11400N 10200E	1	120	21	130	.6	29	19	1095	4.68	13	5	ND	3	66	1.1	4	2	69	.49	.075	17	34	.85	245	.17	3	5.12	.02	.11	1
11400N 10300E	1	28	12	137	.1	17	13	1152	3.15	11	5	ND	2	18	.4	2	2	47	.13	.168	9	20	.48	197	.17	5	3.69	.02	.05	1
11400N 10400E	1	60	7	98	.1	23	18	794	3.97	14	5	ND	3	26	.7	2	2	63	.23	.077	8	29	.93	193	.16	4	3.84	.01	.07	1
11400N 10500E	1	42	7	107	.1	20	16	646	3.93	19	5	ND	3	22	.7	2	2	55	.20	.183	9	28	.89	132	.13	4	2.95	.01	.06	1
11400N 10600E	1	37	9	110	.1	21	16	586	3.81	10	5	ND	3	26	.8	2	2	54	.23	.140	10	26	.78	169	.15	4	3.36	.01	.08	1
STANDARD C	18	63	38	132	7.5	72	31	1029	3.90	40	21	7	38	53	18.6	16	22	57	.50	.087	38	59	.90	181	.09	35	1.88	.05	.14	11

NORANDA VANCOUVER LABORATORY

PROPERTY/LOCATION:KATIE   CODE : 9006-046

Project No.   :124   Sheet:1 of 6   Date rec'd:JUN.22
Material   :289 SOILS   Geol.:T.Mc.   Date compl:JUL.09
Remarks   :

Values in PPM, except where noted.

T.T. No.	SAMPLE No.	PPB Au
94F	9200N-9000E	5
95	9025	5
96	9050	5
97	9075	5
98	9100	5
99	9125	5
100	9150	5
2D	9175	5
3	9200	5
4	9225	5
5	9250	5
6	9275	5
7	9300	5
8	9325	5
9	9350	5
10	9375	5
11	9400	5
12	9425	5
13	9450	5
14	9475	5
15	9500	5
16	9525	5
17	9550	5
18	9575	5
19	9600	5
20	9625	5
21	9650	5
22	9675	5
23	9700	5
24	9725	5
25	9750	5
26	9775	140
27	9800	5
28	9825	5
29	9850	5
30	9875	5
31	9900	5
32	9925	5
33	9950	5
34	9975	5
35	9200N-10000E	5
36	9300N-9000E	5
37	9025	5
38	9050	5
39	9075	5
40	9100	5
41	9125	5
42	9300N-9150E	5

T.T. No.	SAMPLE No.	PPB Au
43	9300N-9175E	5
44	9200	5
45	9225	5
46	9250	5
47	9275	5
48	9300	5
49	9325	40
50	9350	5
2A	9375	5
3	9400	5
4	9425	5
5	9450	5
6	9475	5
7	9500	5
8	9525	5
9	9550	5
10	9575	5
11	9600	5
12	9625	5
13	9650	5
14	9675	5
15	9700	5
16	9725	5
17	9750	5
18	9775	5
19	9800	5
20	9825	5
21	9850	5
22	9875	5
23	9900	5
24	9925	5
25	9950	5
26	9975	5
27	9300N-10000E	5
28	9400N-9000E	5
29	9025	5
30	9050	5
31	9075	5
32	9100	5
33	9125	5
34	9150	5
35	9175	5
36	9200	5
37	9225	5
38	9250	5
39	9275	5
40	9300	5
41	9325	5
42	9350	5
43	9375	5
44	9400	5
45	9425	5
46	9450	5
47	9475	5
48	9500	5
49	9525	5
50	9400N-9550E	5

T.T. No.	SAMPLE No.	PPB Au
52C	9400N-9575E	20
53	9600	5
54	9625	5
55	9650	20
56	9675	30
57	9700	5
58	9725	5
59	9750	5
60	9775	5
61	9800	5
62	9825	5
63	9850	5
64	9875	5
65	9900	5
66	9925	5
67	9950	5
68	9975	5
69	9400N-10000E	5
70	9500N-9000E	5
71	9025	5
72	9050	5
73	9075	5
74	9100	5
75	9125	5
76	9150	5
77	9175	5
78	9200	5
79	9225	5
80	9250	5
81	9275	30
82	9300	5
83	9325	5
84	9350	5
85	9375	5
86	9400	40
87	9425	10
88	9450	5
89	9475	5
90	9500	5
91	9525	5
92	9550	5
93	9575	5
94	9600	5
95	9625	5
96	9650	5
97	9675	5
98	9700	5
99	9725	5
100	9750	5
2C	9775	5
3	9800	5
4	9825	5
5	9850	5
6	9875	5
7	9900	5
8	9925	5
9	9500N-9950E	5

T.T. No.	SAMPLE No.	PPB Au
10	9500N-9975E	5
11	9500N-10000E	5
12	9600N-9000E	5
13	9025	5
14	9050	5
15	9075	5
16	9100	5
17	9125	5
18	9150	5
19	9175	5
20	9200	5
21	9225	5
22	9250	90
23	9275	20
24	9300	5
25	9325	5
26	9350	5
27	9375	5
28	9400	5
29	9425	5
30	9450	5
31	9475	5
32	9500	5
33	9525	5
34	9550	5
[illegible]	9575	5
36	9600	5
37	9625	5
38	9650	5
39	9675	5
40	9700	5
41	9725	5
42	9750	5
43	9775	5
44	9800	5
45	9825	5
46	9850	5
47	9875	5
48	9900	5
49	9925	5
50	9950	5
52E	9975	5
53	9600N-10000E	5
54	9700N-8000E	5
55	8100	5
56	8200	5
57	8300	5
58	8400	5
59	8500	5
60	8600	5
[illegible]	9100	5
[illegible]	9125	5
63	9150	5
64	9175	5
65	9200	5
66	9225	5
67	9700N-9250E	5

T. T. No.	SAMPLE No.	PPB Au
68	9700N-9275E	5
69	9300	5
70	9325	5
71	9350	5
72	9375	5
73	9400	5
74	9425	5
75	9450	5
76	9475	5
77	9500	5
78	9525	5
79	9550	5
80	9575	5
81	9600	5
82	9625	5
83	9650	5
84	9675	5
85	9700N-9700E	5
86	9800N-8050E	5
87	8150	5
88	8250	5
89	8350	5
90	9800N-8450E	5
91	10000N-8000E	5
92	8100	5
93	8200	5
94	8300	5
95	8400	5
96	8500	5
97	8600	5
98	8700	5
99	8800	5
100	8900	5
2P	9000	5
3	10000N-9100E	5
4	10100N-8050E	5
5	8150	5
6	8250	5
7	8350	5
8	10100N-8450E	5
9	10200N-7950E	5
10	8050	5
11	8150	5
12	8250	5
13	8350	5
14	10200N-8450E	5
15	10600N-8250E	5
16	8350	5
17	10600N-8450E	5
18	10700N-7900E	5
19	8000	5
20	8100	5
21	8200	5
22	8300	5
23	8400	5
24	10700N-8500E	5
25	10800N-7950E	5

T. T. No.	SAMPLE No.	PPB Au
26	10800N-8050E	5
27	8150	5
28	8250	5
29	8350	5
30	10800N-8450E	5
31	10900N-7850E	5
32	7950	5
33	8050	5
34	8150	5
35	8250	5
36	8350	5
37	10900N-8450E	5
38P	11000N-7700E	5

GEOCHEMICAL ANALYSIS CERTIFICATE

Noranda Exploration Co. Ltd. PROJECT 9006-046-124 File # 90-1963

P.O. Box 2380, 1050 Davie St., Vancouver BC V6B 3T5

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au* ppb
R 120731	1	132	5	42	.1	8	13	1041	3.84	8	5	ND	1	102	.6	2	2	10	3.94	.091	2	6	1.33	91	.01	5	.48	.01	.19	1	5
R 79843	1	193	3	40	.1	73	39	1196	5.86	11	5	ND	2	105	.2	2	2	25	3.51	.120	2	48	2.00	22	.01	3	.91	.01	.12	1	16
R 79844	1	45	6	60	.1	80	23	1310	5.59	11	5	ND	2	148	1.3	4	2	54	4.84	.107	3	105	3.53	129	.01	4	2.04	.01	.09	1	11
R 79845	5	209	336	211	19.2	7	3	71	2.77	102	5	ND	2	15	1.1	1065	24	13	.05	.039	23	7	.10	42	.01	4	.43	.01	.13	1	460
R 79846	3	1949	29	138	1.8	13	8	172	3.12	28	5	ND	1	32	1.8	121	2	22	.73	.088	10	14	.51	294	.01	5	.84	.02	.15	1	93

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.
THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.
- SAMPLE TYPE: Rock AU* ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPLE.

DATE RECEIVED: JUN 22 1990 **DATE REPORT MAILED:** June 28/90 **SIGNED BY** C. Leong ....D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716

GEOCHEMICAL ANALYSIS CERTIFICATE

Noranda Exploration Co. Ltd. PROJECT 9006 046 124 File # 90-2142 Page 1

P.O. Box 2380, 1050 Davie St., Vancouver BC V6B 3T5

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm
9200N 9000E	1	72	17	126	.5	26	15	977	4.57	7	5	ND	3	33	.6	2	2	66	.34	.211	11	28	.75	223	.13	3	4.35	.02	.08	1
9200N 9025E	1	63	15	126	.4	22	15	1187	4.38	13	5	ND	3	31	.3	2	2	66	.28	.164	10	27	.82	201	.11	3	3.21	.01	.08	1
9200N 9050E	1	83	18	154	.6	39	15	1175	4.80	15	5	ND	4	39	.6	2	2	71	.42	.091	14	34	1.07	124	.11	5	3.43	.02	.09	1
9200N 9075E	1	63	18	150	.8	24	16	1233	4.47	6	6	ND	4	29	.5	2	2	65	.26	.207	11	27	.76	157	.12	4	3.92	.02	.08	1
9200N 9100E	1	47	20	143	.9	20	14	1227	4.06	14	5	ND	4	19	.4	2	2	57	.16	.432	8	23	.67	195	.12	7	4.30	.02	.07	1
9200N 9125E	1	56	15	234	.8	23	18	1466	4.61	11	5	ND	4	24	.8	2	2	66	.22	.271	9	27	.78	180	.11	5	3.48	.01	.09	1
9200N 9150E	1	94	15	401	.6	43	13	325	4.03	12	5	ND	3	39	.5	2	2	68	.38	.075	9	40	1.22	138	.11	8	3.39	.02	.08	1
9200N 9175E	1	87	19	276	1.1	25	18	1257	4.66	26	5	ND	3	37	1.0	2	3	65	.37	.210	12	29	.79	138	.11	3	3.74	.02	.08	2
9200N 9200E	1	61	16	374	.8	25	17	816	4.50	19	6	ND	3	31	1.2	3	2	64	.29	.183	9	28	.74	220	.10	3	3.29	.01	.08	1
9200N 9225E	1	65	17	157	.7	19	16	1571	4.23	14	5	ND	2	38	.5	2	2	62	.37	.137	19	26	.79	169	.10	2	2.82	.02	.07	1
9200N 9250E	1	98	21	148	.8	26	18	945	4.94	12	5	ND	3	24	.3	2	2	70	.20	.139	14	35	1.01	164	.11	4	3.54	.01	.09	1
9200N 9275E	1	83	12	146	.6	21	16	773	4.41	11	5	ND	4	21	.4	2	2	62	.18	.198	13	26	.78	197	.11	4	3.64	.02	.07	1
9200N 9300E	1	119	14	117	.5	24	17	823	4.92	19	5	ND	2	23	.5	2	2	67	.20	.175	14	32	.90	154	.11	9	3.76	.02	.09	1
9200N 9325E	1	74	14	114	.3	18	14	941	4.58	14	5	ND	2	33	.5	2	2	61	.25	.267	10	25	.68	237	.10	3	2.74	.01	.07	1
9200N 9350E	1	177	18	132	1.2	35	18	1052	5.53	11	5	ND	3	32	.5	2	2	78	.25	.118	21	49	1.21	262	.12	2	4.74	.02	.13	2
9200N 9375E	1	106	14	156	.6	25	18	985	4.91	12	5	ND	3	25	.5	2	2	69	.24	.208	11	33	.99	228	.10	2	3.56	.01	.09	1
9200N 9400E	1	133	17	141	1.0	28	19	995	4.83	12	5	ND	4	22	.2	2	2	69	.19	.149	13	34	.95	236	.12	6	4.25	.02	.09	1
9200N 9425E	1	106	14	161	1.0	23	16	949	4.34	8	6	ND	4	19	.5	2	2	60	.18	.218	15	29	.73	181	.12	3	3.91	.02	.08	1
9200N 9450E	1	131	12	110	.2	24	17	750	5.16	19	5	ND	2	31	.2	2	2	73	.31	.136	13	35	1.22	146	.09	6	2.94	.01	.07	1
9200N 9475E	1	108	17	171	.9	25	18	1522	4.98	14	5	ND	3	27	.5	2	2	68	.27	.170	16	35	.98	209	.09	2	3.60	.02	.09	1
9200N 9500E	1	88	18	161	.8	23	17	1198	4.69	12	5	ND	2	27	.6	2	2	65	.27	.193	12	32	.84	220	.09	3	3.69	.02	.08	1
9200N 9525E	1	98	18	159	1.0	25	17	1000	4.69	13	5	ND	3	23	.5	2	2	63	.24	.234	13	31	.89	170	.09	7	4.01	.02	.09	1
9200N 9550E	1	40	16	182	.8	17	15	1809	4.09	4	5	ND	3	15	.2	2	4	54	.15	.261	9	21	.53	255	.11	6	3.44	.02	.07	1
9200N 9575E	1	61	16	181	1.0	22	17	1295	4.32	7	5	ND	3	17	.5	2	2	62	.16	.260	10	27	.70	181	.11	6	3.59	.01	.07	1
9200N 9600E	1	70	15	138	.7	23	16	1039	4.48	9	5	ND	3	21	.3	2	2	64	.18	.186	10	29	.80	168	.10	6	3.61	.02	.07	1
9200N 9625E	1	49	15	146	.5	18	17	795	4.22	10	5	ND	3	14	.2	2	2	57	.13	.248	8	25	.54	145	.12	4	3.98	.02	.06	1
9200N 9650E	1	66	15	127	.7	21	17	1105	4.20	13	5	ND	3	17	.2	2	2	62	.15	.152	8	27	.71	145	.11	4	3.86	.02	.06	1
9200N 9675E	1	78	20	96	.5	18	12	741	5.28	14	5	ND	3	20	.2	2	2	82	.15	.180	9	31	.95	95	.10	4	2.83	.01	.08	1
9200N 9700E	1	45	16	102	.5	14	12	598	3.80	10	5	ND	3	11	.2	2	2	56	.09	.235	7	20	.43	96	.15	2	4.57	.02	.05	1
9200N 9725E	1	56	18	93	.4	16	9	391	4.43	6	5	ND	4	12	.2	2	2	64	.09	.205	8	28	.57	75	.12	9	4.52	.02	.06	1
9200N 9750E	1	48	15	95	.3	21	11	980	4.78	8	5	ND	2	17	.2	2	3	96	.13	.091	9	31	1.07	84	.16	5	2.46	.01	.06	1
9200N 9775E	1	64	18	101	.5	18	10	374	5.10	12	5	ND	4	15	.2	2	2	76	.10	.144	10	31	.72	102	.12	4	3.57	.01	.07	1
9200N 9800E	1	95	18	134	.7	22	16	1113	4.99	17	5	ND	3	19	.2	2	3	76	.14	.173	11	31	.81	159	.12	3	3.79	.01	.08	1
9200N 9825E	1	99	16	99	.4	19	12	502	5.12	12	5	ND	3	17	.2	2	3	76	.11	.135	11	31	.86	95	.10	5	3.32	.01	.07	1
9200N 9850E	1	82	19	133	.4	19	15	1357	5.33	18	5	ND	2	22	.2	2	4	82	.24	.179	10	31	.80	130	.09	2	2.90	.01	.09	1
9200N 9875E	1	126	20	155	.4	20	17	1408	5.77	13	5	ND	1	13	.2	2	3	72	.09	.168	10	27	.69	119	.07	6	3.66	.01	.06	1
STANDARD C	18	57	38	132	7.4	68	27	946	3.99	41	24	7	37	47	18.1	15	21	58	.51	.093	37	56	.92	173	.08	35	1.93	.06	.14	12

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.
THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.
- SAMPLE TYPE: Soil Pulp

DATE RECEIVED: JUN 29 1990 DATE REPORT MAILED: July 4/90. SIGNED BY.......... D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm
9200N 9900E	1	92	20	111	.4	21	13	723	5.26	14	5	ND	3	17	.2	3	2	78	.14	.170	11	29	.84	101	.10	5	3.31	.01	.07	1
9200N 9925E	1	55	36	128	.3	17	10	1624	4.84	11	5	ND	2	17	.3	4	2	84	.16	.119	9	25	.74	129	.11	4	2.59	.01	.07	1
9200N 9950E	1	84	23	119	.2	22	10	621	5.19	15	5	ND	3	16	.3	3	2	81	.11	.124	10	29	.93	86	.11	4	3.12	.01	.08	1
9200N 9975E	1	52	20	143	.7	19	13	1070	4.14	3	5	ND	4	11	.2	4	2	62	.09	.141	8	21	.52	125	.14	7	4.24	.02	.06	1
9200N 10000E	1	56	22	121	.3	18	13	917	3.96	10	5	ND	4	10	.2	2	2	57	.07	.193	9	21	.58	93	.14	5	4.86	.01	.05	1
9300N 9000E	1	106	20	197	1.1	33	18	1741	4.84	24	5	ND	3	47	.7	2	2	67	.53	.189	13	33	.81	191	.13	4	3.93	.02	.09	1
9300N 9025E	1	71	22	201	.8	28	16	1792	4.72	15	5	ND	3	36	.5	2	2	64	.40	.320	10	33	.77	212	.13	6	4.72	.02	.09	1
9300N 9050E	1	37	28	167	.6	17	14	2116	3.78	16	5	ND	3	23	.4	2	3	52	.18	.186	9	19	.58	219	.12	5	3.35	.02	.07	1
9300N 9075E	1	36	19	128	.5	18	15	2675	3.76	14	5	ND	3	23	.3	2	2	54	.21	.190	9	19	.54	214	.12	9	3.32	.02	.07	1
9300N 9100E	1	43	16	118	.4	18	16	1285	3.94	18	5	ND	3	24	.4	2	2	58	.26	.238	8	22	.57	221	.12	5	2.96	.02	.07	1
9300N 9125E	1	53	39	160	.6	31	17	1037	4.52	48	5	ND	3	39	.5	2	2	66	.31	.245	11	28	.73	133	.10	5	3.33	.02	.08	1
9300N 9150E	1	216	17	160	.4	62	17	562	4.54	36	5	ND	3	47	.4	2	2	67	.50	.067	18	43	.99	67	.11	4	3.18	.02	.07	1
9300N 9175E	1	42	18	160	.5	20	19	1305	4.51	20	5	ND	3	32	.3	3	2	67	.27	.302	10	26	.67	184	.11	4	3.14	.02	.08	1
9300N 9200E	1	55	21	143	.7	22	17	1072	4.47	20	5	ND	3	27	.2	2	2	69	.22	.221	10	28	.68	176	.11	5	3.39	.01	.06	1
9300N 9225E	1	80	17	97	.2	19	18	826	4.24	12	5	ND	4	32	.3	2	2	63	.22	.443	10	23	.67	236	.12	5	3.92	.02	.06	1
9300N 9250E	1	55	17	119	.2	19	16	1606	4.41	10	5	ND	3	30	.3	3	2	68	.25	.176	10	24	.67	232	.12	4	3.01	.01	.07	1
9300N 9275E	1	43	22	183	.7	21	17	2488	4.09	8	5	ND	2	27	.3	2	2	58	.25	.222	8	22	.59	279	.10	4	2.64	.01	.08	1
9300N 9300E	1	45	22	145	.4	19	17	1777	4.35	15	5	ND	2	25	.5	2	2	60	.25	.231	8	22	.60	215	.11	3	2.93	.01	.07	1
9300N 9325E	1	76	23	159	.5	19	20	2120	4.52	15	8	ND	3	31	.5	4	3	66	.33	.241	10	23	.62	292	.11	4	3.07	.01	.07	1
9300N 9350E	1	35	21	179	.6	15	15	2408	3.60	11	5	ND	2	24	.6	2	2	47	.26	.341	7	16	.41	277	.11	9	3.51	.02	.06	1
9300N 9375E	1	47	23	151	1.0	18	14	1152	4.51	13	5	ND	2	23	.3	2	2	62	.23	.225	9	24	.72	244	.09	5	2.49	.01	.07	1
9300N 9400E	1	51	22	128	.7	19	16	1140	4.55	20	5	ND	2	22	.4	2	2	60	.21	.111	9	24	.63	171	.11	4	2.87	.01	.07	1
9300N 9425E	1	51	18	131	.6	18	16	1194	3.99	10	5	ND	2	17	.2	2	2	54	.17	.262	7	22	.61	175	.10	5	4.05	.02	.07	2
9300N 9450E	1	48	18	156	.4	17	15	1031	4.02	14	5	ND	3	26	.3	2	2	57	.30	.344	8	22	.53	216	.12	3	3.36	.01	.06	1
9300N 9475E	1	49	19	163	.5	20	17	1704	4.43	10	5	ND	3	26	.4	2	2	66	.23	.214	9	25	.82	284	.11	4	3.02	.01	.09	1
9300N 9500E	1	55	20	145	1.2	15	11	1508	3.68	11	5	ND	2	15	.4	2	2	53	.14	.277	9	20	.50	191	.12	6	3.71	.02	.06	1
9300N 9525E	1	166	14	103	.3	34	17	418	5.21	15	5	ND	4	23	.2	2	2	71	.18	.150	13	42	1.13	142	.10	4	3.20	.01	.08	1
9300N 9550E	1	28	17	159	1.1	13	13	1806	3.50	10	5	ND	3	15	.3	2	2	49	.16	.259	7	15	.36	157	.14	8	3.69	.02	.06	1
9300N 9575E	1	35	15	116	1.0	14	10	1047	2.92	14	5	ND	3	13	.2	3	2	42	.14	.186	6	14	.32	110	.14	7	5.21	.02	.04	3
9300N 9600E	1	42	18	127	.5	17	13	922	3.90	7	5	ND	3	13	.2	2	2	54	.14	.198	7	20	.50	110	.12	5	4.05	.02	.06	1
9300N 9625E	2	234	17	90	.3	24	16	908	6.07	21	5	ND	3	21	.2	4	2	83	.11	.194	12	34	1.28	132	.08	5	3.54	.01	.09	1
9300N 9650E	1	45	15	96	.6	16	8	719	4.27	14	5	ND	2	14	.2	2	2	73	.12	.174	9	22	.67	142	.12	6	2.46	.01	.07	1
9300N 9675E	1	25	17	69	.5	9	6	1073	3.25	13	5	ND	3	10	.2	2	2	55	.09	.221	7	15	.29	78	.14	5	3.40	.02	.05	1
9300N 9700E	1	61	20	91	.6	17	8	431	5.76	16	5	ND	3	15	.2	2	2	85	.10	.175	9	27	.70	79	.18	7	2.69	.01	.08	1
9300N 9725E	1	58	13	105	.6	51	17	522	4.93	14	6	ND	6	37	.3	2	2	88	.25	.241	21	44	1.71	613	.30	4	3.81	.02	.20	1
9300N 9750E	1	39	13	92	.3	14	11	712	4.85	14	5	ND	3	14	.2	2	3	68	.12	.342	8	30	.55	96	.15	6	3.36	.01	.07	1
STANDARD C	17	57	39	132	7.6	67	28	1039	4.03	39	24	7	36	47	18.3	16	19	59	.51	.095	38	55	.93	179	.07	36	1.97	.06	.14	11

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm
9300N 9775E	1	100	15	83	.3	23	11	391	4.17	16	5	ND	4	21	.2	2	2	67	.17	.152	14	46	.88	86	.14	5	4.52	.01	.08	1
9300N 9800E	1	84	18	69	.3	13	27	1691	3.87	13	5	ND	1	14	.2	2	2	65	.11	.135	11	24	.55	83	.08	8	3.02	.01	.06	1
9300N 9825E	1	59	18	94	.5	21	11	642	5.00	24	5	ND	3	16	.2	2	2	79	.14	.118	11	31	.82	87	.15	4	2.97	.01	.07	1
9300N 9850E	1	51	19	140	.4	45	16	536	4.77	15	5	ND	4	13	.2	4	2	74	.17	.229	8	36	1.32	130	.23	7	4.53	.02	.07	2
9300N 9875E	1	29	20	93	.2	11	7	1072	3.80	10	5	ND	3	11	.2	2	2	65	.09	.158	8	21	.35	123	.16	4	2.22	.01	.06	1
9300N 9900E	1	34	21	129	.9	11	9	2030	4.35	3	5	ND	3	14	.2	2	2	59	.16	.223	8	20	.37	185	.16	5	3.00	.02	.08	1
9300N 9925E	1	58	18	144	.8	18	12	1665	4.85	8	5	ND	2	19	.2	2	2	66	.19	.248	10	26	.74	194	.09	5	2.44	.01	.08	1
9300N 9950E	1	92	16	135	.4	69	17	1068	5.22	16	5	ND	2	19	.2	3	2	78	.19	.216	14	71	1.52	166	.10	9	3.45	.01	.08	1
9300N 9975E	1	87	22	138	.4	36	17	1452	5.99	15	5	ND	3	15	.2	3	2	86	.13	.228	11	46	1.01	137	.11	5	3.67	.01	.09	1
9300N 10000E	1	51	17	116	.3	27	13	1967	4.25	9	5	ND	2	21	.2	2	2	72	.18	.148	11	31	.79	187	.14	9	2.70	.01	.07	1
9400N 9000E	1	121	18	167	.6	23	14	1059	5.10	23	5	ND	1	19	.6	2	2	67	.15	.093	20	30	.68	121	.08	5	3.15	.01	.08	1
9400N 9025E	1	102	39	266	.6	24	19	2312	4.27	17	5	ND	1	35	1.2	2	2	54	.36	.301	11	24	.79	345	.07	11	2.98	.02	.10	1
9400N 9050E	1	70	22	183	.6	21	19	2414	4.10	20	5	ND	2	42	.7	2	2	52	.50	.330	9	24	.67	316	.08	4	2.88	.01	.09	1
9400N 9075E	1	35	16	164	.4	16	18	2387	3.96	14	5	ND	2	38	.2	2	2	51	.38	.454	8	22	.51	421	.10	5	2.59	.01	.08	1
9400N 9100E	1	44	21	118	.3	23	17	1029	4.09	18	5	ND	3	26	.2	2	3	58	.24	.260	7	22	.57	195	.15	8	3.57	.02	.08	1
9400N 9125E	1	57	17	115	.7	24	16	1226	4.14	17	5	ND	4	26	.2	2	2	59	.28	.244	9	24	.68	184	.14	4	4.13	.02	.08	1
9400N 9150E	1	51	19	122	.2	23	17	938	4.48	19	5	ND	3	25	.2	2	2	63	.20	.278	9	27	.73	198	.12	5	3.34	.01	.08	1
9400N 9175E	1	61	16	131	.6	24	17	924	4.18	19	5	ND	4	18	.3	3	2	56	.15	.179	9	24	.67	157	.13	6	4.23	.02	.07	1
9400N 9200E	1	38	18	176	.8	20	16	2145	3.69	12	5	ND	3	20	.4	2	2	49	.19	.225	8	19	.52	168	.13	9	3.66	.02	.07	1
9400N 9225E	1	36	14	160	.4	19	15	1832	3.57	11	5	ND	3	19	.4	2	2	47	.16	.225	9	19	.49	157	.12	9	3.69	.02	.06	1
9400N 9250E	1	76	16	148	.7	25	17	1035	4.17	15	5	ND	4	18	.3	2	2	54	.15	.177	11	22	.68	135	.13	10	4.38	.02	.06	1
9400N 9275E	1	60	26	155	.5	21	18	2058	3.97	18	5	ND	4	18	.2	3	2	53	.16	.350	7	20	.49	158	.13	9	4.26	.02	.06	1
9400N 9300E	1	58	16	117	.5	16	13	1931	3.36	9	5	ND	4	20	.3	2	2	48	.22	.221	8	16	.35	167	.14	6	4.03	.02	.06	1
9400N 9325E	1	40	25	155	1.0	17	16	2715	3.77	10	5	ND	3	18	.2	2	2	54	.15	.159	10	18	.36	239	.12	6	3.26	.02	.07	1
9400N 9350E	1	58	26	153	1.0	19	15	1231	4.06	12	5	ND	3	19	.2	2	2	54	.15	.154	10	19	.48	205	.13	5	3.42	.02	.08	1
9400N 9375E	1	57	22	138	1.5	16	14	1937	3.54	12	5	ND	3	14	.2	2	2	47	.12	.252	9	16	.38	171	.14	10	3.82	.02	.06	1
9400N 9400E	1	99	23	156	.7	22	15	886	4.89	22	5	ND	3	17	.2	2	2	57	.11	.236	10	23	.72	162	.11	7	3.74	.02	.07	1
9400N 9425E	1	52	24	135	.7	20	14	1481	3.83	15	5	ND	3	19	.4	2	2	52	.18	.231	8	22	.43	203	.13	5	3.40	.02	.06	1
9400N 9450E	1	100	15	128	.6	26	20	1696	5.13	16	5	ND	2	21	.2	3	2	48	.19	.223	11	28	.58	270	.09	9	2.88	.01	.06	1
9400N 9475E	1	68	16	146	.9	18	15	1476	4.65	6	5	ND	3	13	.2	2	2	66	.10	.279	7	27	.57	164	.14	8	3.81	.02	.06	1
9400N 9500E	1	134	18	130	.5	26	15	951	5.54	14	5	ND	3	26	.2	2	2	82	.18	.231	11	39	1.04	239	.10	8	3.26	.01	.09	1
9400N 9525E	2	171	12	105	.7	12	11	785	4.90	9	5	ND	3	13	.2	2	2	57	.11	.241	7	19	.53	116	.10	10	4.17	.02	.06	1
9400N 9550E	4	213	23	108	2.0	11	11	1036	6.79	17	5	ND	3	16	.2	2	2	77	.09	.346	5	15	.60	129	.16	5	3.37	.01	.06	1
9400N 9575E	2	165	12	98	.5	19	13	531	5.56	12	5	ND	3	18	.2	4	2	75	.09	.164	10	28	.88	130	.10	3	3.74	.01	.07	1
9400N 9600E	1	108	16	88	.7	18	11	490	4.50	11	5	ND	2	15	.2	2	2	63	.09	.230	12	26	.78	124	.11	5	4.03	.01	.05	1
9400N 9625E	1	65	18	127	.6	19	15	1495	4.49	12	5	ND	2	17	.2	2	2	62	.13	.166	9	25	.80	186	.10	10	3.56	.01	.06	1
STANDARD C	17	57	39	132	7.5	67	27	1037	4.01	40	23	7	36	47	18.8	15	19	59	.52	.095	38	57	.93	176	.07	35	1.94	.06	.14	11

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm
9400N 9650E	1	45	5	105	.7	14	10	651	3.82	8	5	ND	2	12	.5	2	2	51	.11	.239	6	20	.41	104	.13	4	4.23	.01	.03	1
9400N 9675E	1	136	9	136	.4	35	19	1719	5.47	17	7	ND	1	35	.2	2	2	71	.31	.153	14	55	1.09	249	.09	4	4.06	.01	.07	1
9400N 9700E	1	100	5	159	.3	23	18	828	5.88	23	5	ND	2	22	.7	2	2	70	.19	.213	12	38	1.07	168	.06	9	2.92	.01	.05	1
9400N 9725E	1	107	30	151	.6	30	17	1495	5.05	12	5	ND	1	23	.2	2	3	66	.21	.143	12	39	.92	245	.10	2	3.51	.01	.06	1
9400N 9750E	1	229	25	144	.7	44	19	1461	6.04	18	5	ND	1	36	.3	2	2	78	.34	.170	12	101	1.42	300	.09	3	5.82	.01	.08	1
9400N 9775E	1	55	11	165	.6	18	13	1447	4.33	10	5	ND	1	16	.8	2	3	58	.15	.235	9	25	.56	190	.10	2	3.22	.01	.05	1
9400N 9800E	1	67	2	147	.4	21	17	1096	4.73	15	5	ND	2	18	.2	2	2	61	.15	.263	9	29	.67	197	.11	2	3.64	.01	.05	1
9400N 9825E	1	76	11	128	.3	18	16	1398	4.65	18	5	ND	2	18	.2	2	2	61	.19	.157	10	28	.64	155	.10	5	3.11	.01	.04	1
9400N 9850E	1	81	13	115	.4	19	14	1623	4.97	13	7	ND	1	14	.2	2	2	62	.12	.171	10	29	.69	97	.08	2	3.04	.01	.05	1
9400N 9875E	1	52	14	80	.5	13	11	731	4.00	13	5	ND	2	10	.2	2	4	52	.07	.212	8	24	.45	80	.11	4	4.20	.01	.04	2
9400N 9900E	1	69	12	89	.4	16	14	712	4.57	10	5	ND	2	12	.2	2	4	61	.08	.156	9	28	.61	86	.10	3	3.79	.01	.05	3
9400N 9925E	1	62	12	101	.5	13	12	792	4.15	15	5	ND	2	10	.3	2	3	55	.07	.133	7	26	.50	86	.12	4	4.77	.01	.03	1
9400N 9950E	1	60	7	94	.6	20	13	632	4.23	15	5	ND	3	10	.2	2	2	57	.07	.096	9	29	.59	99	.15	8	4.48	.01	.04	1
9400N 9975E	1	49	7	95	1.2	12	13	1126	4.34	10	5	ND	2	10	.7	2	3	59	.07	.236	7	24	.45	96	.12	3	3.62	.01	.03	1
9400N 10000E	1	46	7	87	.4	15	9	484	4.72	10	5	ND	3	10	.2	2	2	59	.07	.183	8	29	.51	71	.13	3	4.45	.01	.04	1
9500N 9000E	1	76	2	151	.2	17	18	1338	4.02	14	5	ND	4	22	1.0	2	5	54	.22	.301	11	23	.54	198	.14	4	3.87	.01	.05	1
9500N 9025E	1	94	4	150	.3	21	19	1480	4.15	19	5	ND	1	36	.4	2	2	53	.53	.202	12	24	.63	136	.10	5	3.72	.01	.06	1
9500N 9050E	1	92	3	327	.4	22	21	869	4.24	17	5	ND	2	34	1.8	2	2	52	.45	.280	11	25	.67	193	.12	6	3.84	.01	.05	1
9500N 9075E	1	83	10	392	.4	19	18	815	4.18	15	5	ND	2	29	.6	2	2	51	.32	.301	7	21	.57	238	.10	5	3.28	.01	.04	2
9500N 9100E	2	103	19	232	.9	17	20	1294	4.54	15	5	ND	3	20	.2	2	5	54	.19	.341	8	21	.61	209	.09	4	3.35	.01	.04	5
9500N 9125E	1	44	25	203	1.6	11	12	1087	3.68	11	5	ND	2	17	.6	2	2	44	.16	.197	9	15	.34	197	.13	9	3.77	.02	.05	1
9500N 9150E	1	39	21	166	2.3	10	11	1679	3.21	8	5	ND	2	12	.4	2	5	41	.11	.403	7	13	.24	130	.13	9	4.58	.02	.03	1
9500N 9175E	3	186	11	200	.7	31	36	1692	6.36	17	5	ND	2	45	.4	2	4	79	.22	.144	8	23	.89	202	.11	5	3.99	.01	.05	1
9500N 9200E	2	70	16	96	.3	14	12	501	6.61	14	5	ND	2	25	.4	2	3	72	.11	.129	9	23	.69	170	.07	8	2.95	.01	.05	1
9500N 9225E	1	84	29	97	.2	16	13	769	5.77	16	5	ND	3	20	.2	2	2	70	.12	.128	8	22	.74	117	.09	4	3.56	.01	.05	1
9500N 9250E	3	97	23	98	.6	15	11	535	8.09	21	5	ND	3	20	.8	2	7	79	.06	.154	8	25	.67	131	.14	2	3.71	.01	.06	1
9500N 9275E	2	91	13	122	.5	23	19	523	5.20	15	5	ND	4	18	.2	2	2	61	.10	.120	9	34	.71	164	.12	2	4.16	.01	.05	1
9500N 9300E	1	39	14	134	.3	20	13	743	4.26	11	5	ND	5	17	.2	2	4	49	.14	.235	11	25	.55	357	.14	4	4.01	.01	.05	1
9500N 9325E	2	60	27	127	.7	17	15	1508	4.12	11	5	ND	3	13	.2	2	3	50	.09	.188	9	23	.51	164	.15	4	4.53	.01	.05	1
9500N 9350E	1	47	20	123	.4	123	21	691	4.72	7	6	ND	5	21	.2	2	3	66	.22	.136	9	163	1.82	249	.28	2	4.57	.02	.17	1
9500N 9375E	1	124	19	125	.3	108	23	591	5.55	15	5	ND	5	36	1.2	2	2	84	.41	.157	18	154	2.29	297	.26	4	3.30	.02	.22	1
9500N 9400E	1	54	19	156	1.3	41	16	1149	4.25	12	5	ND	4	14	1.7	2	4	58	.14	.203	9	47	.85	176	.16	4	3.98	.01	.06	1
9500N 9425E	1	105	34	178	.9	33	17	802	4.86	18	5	ND	3	16	.2	2	2	65	.12	.121	10	47	.90	196	.11	2	3.84	.01	.04	1
9500N 9450E	1	144	32	180	.7	31	25	1100	5.19	21	5	ND	4	16	.2	2	2	60	.11	.184	11	40	.89	240	.11	2	4.23	.01	.05	1
9500N 9475E	2	88	9	122	.7	19	19	2119	4.48	9	5	ND	3	16	.4	2	6	51	.12	.179	8	23	.43	214	.12	5	3.94	.02	.05	1
9500N 9500E	2	185	22	175	.7	23	28	2492	6.54	19	5	ND	2	14	.2	2	2	49	.10	.165	10	23	.52	217	.07	2	2.76	.01	.04	1
STANDARD C	18	61	40	132	7.3	69	29	1026	4.13	44	19	7	37	47	18.5	15	18	57	.52	.096	35	57	.93	171	.08	39	1.99	.06	.13	11

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm
9500N 9525E	3	215	21	139	.7	22	30	2256	7.25	17	5	ND	1	16	.2	2	2	49	.20	.210	11	17	.59	531	.07	2	3.35	.01	.06	2
9500N 9550E	2	104	23	146	1.1	13	15	791	6.39	8	5	ND	1	16	.2	2	2	53	.10	.340	10	24	.61	277	.09	3	4.29	.01	.05	1
9500N 9575E	2	368	53	157	1.1	25	37	2860	5.94	6	5	ND	1	51	.5	2	2	53	.65	.170	15	31	.81	201	.05	4	3.82	.01	.06	1
9500N 9600E	2	147	5	119	.9	18	23	2007	5.41	12	5	ND	1	21	.7	2	2	67	.15	.251	9	34	.80	228	.09	3	3.16	.01	.05	1
9500N 9625E	1	90	14	111	1.3	14	15	717	4.33	7	5	ND	2	13	.2	2	2	54	.10	.189	7	26	.53	114	.14	6	4.23	.01	.04	1
9500N 9650E	1	62	11	137	.6	18	17	1061	4.47	13	5	ND	1	23	.8	2	2	60	.28	.277	9	28	.64	211	.08	6	3.58	.01	.05	1
9500N 9675E	1	90	18	148	.8	26	18	1162	4.68	12	5	ND	1	18	.2	2	3	60	.16	.300	11	36	.82	189	.08	4	4.09	.01	.06	1
9500N 9700E	1	145	17	108	.3	30	20	892	5.80	20	5	ND	1	35	.2	2	3	69	.37	.121	15	46	1.20	190	.05	6	3.06	.01	.06	1
9500N 9725E	1	86	24	125	.9	20	15	511	4.32	10	5	ND	2	12	.6	2	3	55	.11	.192	11	29	.60	144	.12	4	4.94	.01	.05	1
9500N 9750E	1	73	17	127	1.6	19	16	1093	4.26	18	5	ND	2	14	.9	6	2	55	.12	.209	9	27	.58	155	.10	4	3.79	.01	.04	1
9500N 9775E	1	56	18	123	1.0	13	15	989	4.38	4	5	ND	1	14	.2	2	2	56	.11	.297	8	27	.59	133	.09	4	3.50	.01	.05	1
9500N 9800E	1	69	10	165	.7	23	14	971	4.28	10	5	ND	1	15	.2	2	4	54	.15	.359	9	32	.67	167	.09	7	3.64	.01	.05	2
9500N 9825E	1	73	27	101	.5	19	13	682	4.97	10	5	ND	1	20	.2	2	2	60	.18	.227	10	32	.78	146	.08	5	3.09	.01	.05	1
9500N 9850E	1	65	20	117	.5	18	17	998	4.49	8	5	ND	2	12	.3	2	3	58	.09	.138	11	30	.62	127	.10	8	4.11	.01	.05	1
9500N 9875E	1	54	18	74	.7	13	12	524	3.87	3	5	ND	3	10	.2	2	2	52	.06	.176	10	22	.44	92	.13	5	4.25	.01	.04	1
9500N 9900E	1	57	16	88	.7	12	13	984	4.36	6	5	ND	3	11	.2	2	2	57	.07	.127	8	26	.45	93	.13	6	4.43	.01	.04	1
9500N 9925E	1	65	11	104	.4	12	13	674	4.32	10	5	ND	2	12	.2	2	2	56	.07	.089	9	25	.66	101	.11	7	3.86	.01	.04	1
9500N 9950E	1	47	12	141	.5	21	16	1149	4.02	8	5	ND	2	13	.6	2	2	50	.13	.169	10	28	.57	152	.12	8	4.79	.02	.06	1
9500N 9975E	1	52	21	106	.7	20	14	782	4.95	22	5	ND	2	14	.2	3	4	62	.10	.131	9	33	.64	122	.09	6	3.13	.01	.05	1
9500N 10000E	1	70	18	88	.4	19	12	455	5.11	13	5	ND	2	15	.3	2	2	63	.11	.173	8	35	.78	88	.10	3	3.33	.01	.04	1
9600N 9000E	1	81	15	155	.4	23	21	1169	5.16	16	5	ND	3	18	1.1	2	3	67	.17	.257	10	25	.72	210	.10	10	3.95	.01	.07	1
9600N 9025E	1	66	24	154	.5	22	23	1833	4.62	10	5	ND	3	15	.9	3	2	60	.15	.264	9	27	.66	166	.10	8	4.13	.01	.06	1
9600N 9050E	1	55	22	112	.5	18	20	1434	4.46	11	5	ND	2	21	.2	2	2	61	.18	.129	9	24	.59	180	.11	4	3.28	.01	.06	1
9600N 9075E	1	64	9	134	.8	16	19	1623	4.33	7	5	ND	2	19	.4	2	2	56	.17	.304	9	22	.57	183	.10	7	4.03	.02	.06	1
9600N 9100E	2	62	17	115	.4	20	20	1067	4.53	10	5	ND	2	17	.2	2	2	54	.14	.254	9	24	.62	155	.09	2	3.50	.01	.06	1
9600N 9125E	2	166	19	71	.4	21	22	587	4.77	17	5	ND	3	24	.2	2	2	62	.17	.212	10	29	.66	134	.13	10	4.45	.02	.04	1
9600N 9150E	2	102	11	112	1.5	19	20	476	5.36	17	5	ND	2	32	.2	2	2	47	.10	.212	9	20	.31	147	.06	4	3.66	.02	.06	1
9600N 9175E	1	51	20	131	.3	139	27	842	5.68	2	5	ND	4	26	1.5	2	2	88	.30	.124	10	147	2.67	314	.34	3	3.90	.01	.21	1
9600N 9200E	1	69	21	143	.3	147	29	591	5.85	2	5	ND	5	25	.9	2	2	87	.27	.160	10	128	2.63	340	.34	8	4.02	.02	.24	1
9600N 9225E	1	115	14	148	.3	80	21	684	5.50	16	5	ND	3	19	.2	2	2	78	.17	.151	14	89	1.57	166	.16	7	3.37	.01	.11	1
9600N 9250E	2	89	826	631	4.9	36	23	3462	4.66	42	5	ND	3	16	1.5	2	2	55	.16	.162	11	42	.69	196	.17	6	3.77	.02	.08	3
9600N 9275E	5	97	216	749	.7	23	23	5249	6.56	45	5	ND	2	16	2.2	2	7	48	.17	.150	13	26	.44	325	.09	2	2.96	.01	.08	4
9600N 9300E	1	36	24	293	.6	11	9	2067	3.52	4	5	ND	1	13	.8	2	2	53	.12	.149	8	20	.39	229	.14	6	2.30	.02	.07	1
9600N 9325E	1	100	24	162	.2	25	11	528	5.10	11	5	ND	2	18	.2	2	2	66	.15	.180	8	35	.90	132	.10	2	3.56	.01	.07	1
9600N 9350E	1	72	20	135	.4	21	17	1106	4.65	8	5	ND	3	16	.2	2	3	61	.13	.154	9	30	.65	125	.11	6	3.87	.01	.06	1
9600N 9375E	1	58	21	119	.9	17	14	1190	3.69	10	5	ND	3	20	.6	2	2	47	.21	.253	8	21	.45	151	.13	4	4.58	.02	.05	1
STANDARD C	17	58	42	132	7.3	68	29	1031	4.11	38	19	7	36	47	18.2	16	19	56	.52	.096	36	58	.92	171	.07	40	2.00	.05	.14	11

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm
9600N 9400E	1	44	24	139	.6	19	16	2820	4.06	5	5	ND	2	14	1.6	2	2	54	.12	.210	9	27	.49	163	.11	4	3.37	.01	.05	1
9600N 9425E	1	74	19	117	.6	19	19	1730	4.05	14	5	ND	3	15	1.2	2	3	53	.13	.247	10	24	.59	177	.12	4	4.30	.01	.05	1
9600N 9450E	1	110	23	122	.4	26	21	1292	4.80	15	5	ND	2	22	1.0	3	2	60	.16	.195	10	34	.77	253	.11	2	3.63	.01	.05	1
9600N 9475E	1	104	31	117	.3	25	23	1388	5.11	10	5	ND	3	21	1.0	3	2	65	.17	.174	11	36	.81	252	.10	5	3.23	.01	.07	1
9600N 9500E	2	98	20	113	.4	20	24	1262	5.12	16	5	ND	3	18	.8	5	2	57	.14	.269	11	29	.71	287	.09	3	3.24	.01	.06	1
9600N 9525E	2	79	14	136	.3	17	18	916	4.65	5	6	ND	2	21	.7	2	2	48	.22	.342	9	25	.57	264	.09	5	3.55	.01	.06	1
9600N 9550E	1	71	15	105	.7	29	22	607	4.43	8	5	ND	2	25	.4	3	3	56	.26	.134	8	31	.54	162	.13	5	2.93	.01	.05	1
9600N 9575E	1	94	20	148	.5	34	25	1035	4.88	7	5	ND	3	11	.7	2	2	53	.10	.171	7	34	.55	111	.16	2	4.31	.01	.04	1
9600N 9600E	1	66	9	130	.4	25	18	826	4.69	7	5	ND	3	14	1.0	2	2	58	.13	.213	7	35	.53	176	.17	8	3.47	.01	.06	1
9600N 9625E	1	176	18	111	.1	30	19	762	4.84	6	5	ND	3	29	.4	2	2	70	.34	.211	10	37	.86	170	.10	6	3.64	.01	.08	1
9600N 9650E	1	128	15	158	.5	24	20	752	4.70	7	5	ND	2	25	1.1	3	2	65	.19	.105	11	37	.72	165	.09	2	3.02	.01	.06	2
9600N 9675E	1	425	22	98	.2	50	11	236	5.52	12	5	ND	1	27	.2	2	2	63	.24	.077	10	54	.84	163	.07	6	4.12	.01	.07	1
9600N 9700E	1	114	14	140	.6	28	18	1630	4.82	9	5	ND	1	28	1.1	2	2	62	.26	.135	14	38	.77	199	.07	6	3.33	.01	.06	1
9600N 9725E	1	106	14	134	.4	19	17	876	4.52	10	5	ND	1	24	.4	2	2	57	.27	.206	11	33	.74	176	.07	2	3.37	.01	.05	1
9600N 9750E	1	101	19	112	.5	24	17	628	5.21	24	5	ND	1	18	.2	3	2	64	.14	.152	9	34	.97	143	.05	2	3.18	.01	.04	1
9600N 9775E	1	85	13	110	.3	20	18	772	4.89	13	5	ND	1	27	.2	2	2	65	.32	.132	9	33	.76	157	.08	2	2.57	.01	.04	1
9600N 9800E	2	153	15	90	.1	25	17	492	5.64	18	5	ND	3	24	.7	3	2	72	.18	.166	10	38	1.12	116	.07	5	2.49	.01	.04	1
9600N 9825E	1	109	21	111	.4	21	20	1355	4.72	21	5	ND	1	48	.4	3	2	58	.75	.156	13	35	.83	145	.05	6	2.73	.01	.04	1
9600N 9850E	1	124	20	85	.2	26	20	1022	5.11	12	5	ND	1	45	.2	3	2	69	.57	.115	11	40	1.17	122	.06	4	2.87	.01	.04	1
9600N 9875E	1	74	18	121	.4	15	17	1091	4.35	7	5	ND	1	20	.2	2	4	60	.20	.240	8	28	.71	147	.09	5	2.95	.01	.04	1
9600N 9900E	1	87	14	114	.3	18	17	885	4.71	13	5	ND	2	19	.2	2	2	70	.16	.184	9	34	.89	131	.11	4	3.28	.01	.05	1
9600N 9925E	1	86	14	94	.4	21	17	864	4.56	13	5	ND	3	16	.2	5	5	69	.13	.135	9	34	.77	126	.12	3	3.42	.01	.05	1
9600N 9950E	1	85	19	92	.8	20	17	714	4.75	17	5	ND	2	17	.2	4	2	69	.14	.144	8	35	.78	104	.10	2	3.17	.01	.05	1
9600N 9975E	1	98	14	87	.2	22	17	529	5.27	20	5	ND	3	17	.2	2	2	72	.12	.205	8	37	.95	123	.10	6	3.47	.01	.05	2
9600N 10000E	1	70	16	69	.5	13	12	441	3.44	7	5	ND	3	10	.2	2	2	50	.08	.134	6	25	.47	85	.13	4	5.29	.01	.04	1
9700N 8000E	1	90	14	145	.4	20	16	1172	4.50	14	5	ND	1	29	.2	2	2	51	.34	.134	13	28	.67	128	.07	5	3.03	.01	.05	1
9700N 8100E	1	90	15	144	.4	23	16	1415	4.51	15	5	ND	1	31	1.0	2	2	52	.31	.126	15	27	.77	136	.06	4	2.90	.01	.06	1
9700N 8200E	1	123	12	105	.1	20	17	1069	4.62	16	5	ND	1	43	.2	2	2	59	.43	.095	12	26	.87	101	.06	5	2.69	.01	.06	1
9700N 8300E	1	74	10	147	.3	19	15	1664	3.99	10	5	ND	3	27	.2	2	2	54	.24	.251	8	22	.58	269	.10	6	3.21	.01	.05	2
9700N 8400E	1	188	11	115	.4	18	20	677	4.72	3	5	ND	3	33	.2	2	2	76	.30	.144	8	19	.82	195	.11	4	2.80	.01	.05	1
9700N 8500E	1	93	21	177	.5	18	17	858	4.49	12	5	ND	3	25	.2	2	2	58	.24	.202	10	22	.62	196	.10	5	3.08	.01	.06	1
9700N 8600E	1	51	16	182	.1	37	16	1813	4.68	14	5	ND	1	15	.2	2	2	64	.16	.143	12	47	.52	224	.04	2	2.20	.01	.05	1
9700N 9100E	1	62	19	129	.1	115	28	1032	5.43	2	5	ND	6	18	.6	2	3	76	.18	.182	9	122	2.09	276	.28	4	3.67	.01	.18	1
9700N 9125E	1	45	29	144	.1	20	17	2349	5.18	13	5	ND	4	18	.2	4	2	58	.14	.174	9	25	.44	220	.13	2	2.52	.01	.08	1
9700N 9150E	1	24	35	187	.1	17	10	2420	4.15	13	5	ND	4	16	.2	4	2	52	.14	.150	13	23	.41	198	.12	5	2.42	.01	.06	1
9700N 9175E	2	62	17	101	.2	20	12	545	4.24	5	5	ND	5	11	.2	3	2	52	.08	.150	9	22	.48	121	.13	6	4.12	.01	.05	1
STANDARD C	17	59	36	132	7.2	69	29	1031	4.07	39	21	6	36	47	18.3	15	22	58	.52	.099	37	59	.91	176	.07	36	1.93	.06	.13	11

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm
9700N 9200E	1	78	13	100	1.1	23	17	1652	4.83	10	5	ND	4	16	.2	2	3	63	.13	.105	11	26	.71	182	.11	7	3.18	.03	.09	1
9700N 9225E	1	41	56	123	1.2	15	13	1507	4.34	6	5	ND	3	12	.3	2	2	55	.12	.116	9	18	.43	158	.11	5	2.68	.03	.08	1
9700N 9250E	1	57	23	90	.7	14	9	541	5.04	4	5	ND	2	12	.2	2	2	69	.08	.123	7	22	.53	149	.12	4	3.15	.02	.07	1
9700N 9275E	1	96	19	104	.5	19	25	2113	5.70	14	5	ND	2	18	.3	3	2	63	.11	.137	11	37	.67	382	.08	4	2.83	.02	.08	1
9700N 9300E	1	96	10	121	1.0	18	30	817	4.35	12	5	ND	2	11	.2	2	2	59	.08	.135	8	29	.60	154	.10	7	4.22	.03	.06	1
9700N 9325E	1	91	13	104	.7	24	16	459	4.39	8	5	ND	4	16	.2	2	2	58	.11	.153	11	26	.78	141	.11	6	3.74	.04	.08	1
9700N 9350E	1	55	13	143	.8	19	12	769	3.68	2	5	ND	2	14	.2	2	2	50	.12	.203	9	27	.54	229	.12	4	3.52	.02	.07	1
9700N 9375E	1	92	41	162	.5	21	19	1084	5.31	16	5	ND	1	19	.4	3	2	66	.13	.114	9	30	.83	316	.07	5	2.74	.03	.08	1
9700N 9400E	1	31	27	194	.6	13	11	1695	3.37	2	5	ND	2	11	.2	2	2	46	.14	.172	6	18	.33	211	.13	7	2.66	.02	.06	1
9700N 9425E	1	43	25	200	.3	13	11	1962	4.03	2	5	ND	1	13	.2	2	2	51	.14	.173	8	21	.48	186	.10	8	2.09	.02	.08	1
9700N 9450E	1	53	20	136	.5	16	15	1392	4.22	6	5	ND	2	14	.2	2	2	56	.11	.212	9	21	.57	157	.10	3	2.93	.02	.07	1
9700N 9475E	1	68	16	137	.4	20	14	979	4.15	8	5	ND	2	16	.3	2	2	50	.15	.246	8	23	.63	131	.11	10	3.47	.02	.06	1
9700N 9500E	1	58	21	135	.2	19	14	1041	4.23	9	5	ND	3	13	.2	2	2	54	.13	.253	8	24	.52	157	.13	8	3.83	.03	.07	2
9700N 9525E	1	64	15	110	.5	20	14	1163	4.17	11	5	ND	3	19	.2	2	3	54	.17	.200	9	26	.62	172	.10	5	3.07	.02	.07	1
9700N 9550E	1	68	17	138	.8	24	14	1293	4.19	6	5	ND	3	13	.4	2	2	54	.10	.168	8	29	.61	157	.11	6	3.68	.02	.06	1
9700N 9575E	1	146	17	100	.1	33	19	646	5.47	10	5	ND	5	19	.2	2	2	67	.12	.121	11	42	1.03	166	.12	2	3.38	.02	.08	1
9700N 9600E	1	29	16	155	.4	15	9	2857	2.95	2	5	ND	3	16	.2	2	2	38	.17	.365	6	16	.25	309	.15	4	3.91	.02	.06	1
9700N 9625E	1	69	16	97	.2	24	14	851	4.02	3	5	ND	4	18	.2	2	2	52	.16	.129	7	29	.62	182	.14	6	3.44	.02	.07	1
9700N 9650E	1	50	12	113	.1	22	14	1056	3.59	2	5	ND	3	24	.2	2	2	52	.22	.138	7	27	.66	265	.13	7	2.40	.02	.09	1
9700N 9675E	1	167	13	74	.1	30	20	467	5.41	24	5	ND	3	25	.2	2	2	68	.22	.127	9	39	1.11	152	.08	2	2.31	.01	.07	1
9700N 9700E	1	99	14	110	.4	32	21	1171	5.45	16	5	ND	2	25	.3	2	2	66	.22	.238	10	42	1.05	220	.10	3	2.62	.02	.08	1
9800N 8050E	1	132	18	87	.5	27	11	499	3.30	13	5	ND	1	50	.5	2	2	39	.73	.099	32	24	.69	121	.05	3	2.96	.02	.05	1
9800N 8150E	1	99	14	136	.3	22	12	1059	5.10	15	5	ND	1	49	.2	3	2	60	.57	.078	11	26	.86	111	.07	6	2.71	.02	.08	1
9800N 8250E	1	62	14	160	.7	19	14	1631	4.36	11	5	ND	3	22	.4	2	2	54	.19	.253	10	22	.74	222	.10	6	3.39	.03	.08	1
9800N 8350E	1	75	18	113	.4	15	13	1332	4.10	9	5	ND	3	13	.2	2	2	60	.10	.149	8	19	.51	151	.09	6	2.75	.02	.06	1
9800N 8450E	1	2098	13	114	.3	20	12	817	4.48	56	5	ND	4	31	.2	3	2	59	.32	.180	16	24	.81	183	.13	3	4.58	.02	.08	1
10000N 8000E	1	113	16	118	.7	37	37	1352	4.06	12	5	ND	1	49	1.0	2	2	44	.83	.121	12	18	.49	76	.06	3	2.73	.02	.06	1
10000N 8100E	1	86	17	99	.8	26	9	809	3.95	8	5	ND	1	32	.5	2	2	41	.46	.197	15	17	.40	82	.10	3	3.10	.02	.06	1
10000N 8200E	2	176	13	128	.3	36	15	837	4.74	10	5	ND	3	34	.2	2	2	58	.31	.138	11	27	.87	209	.09	6	3.83	.02	.07	1
10000N 8300E	2	179	10	57	1.0	15	18	1041	3.60	13	5	ND	3	19	.2	3	2	56	.16	.166	7	15	.67	162	.12	6	3.31	.02	.05	1
10000N 8400E	1	155	17	113	.3	22	16	1314	4.36	15	5	ND	3	19	.2	2	2	59	.16	.122	10	26	.82	154	.11	4	3.22	.01	.07	1
10000N 8500E	1	130	18	166	.9	37	14	1774	5.04	14	5	ND	2	51	.6	2	2	63	.42	.120	16	46	.92	615	.10	6	4.81	.02	.09	1
10000N 8600E	1	33	15	84	.4	16	10	1116	3.04	5	5	ND	3	11	.2	2	2	43	.10	.162	7	14	.32	95	.13	9	4.19	.02	.05	2
10000N 8700E	1	21	13	58	.4	9	6	840	2.22	2	5	ND	3	8	.2	2	2	31	.06	.150	5	10	.15	69	.15	3	4.75	.02	.02	3
10000N 8800E	1	51	15	114	.3	15	11	1154	4.10	10	5	ND	3	10	.2	3	2	55	.07	.171	7	19	.52	86	.12	3	4.19	.02	.05	1
10000N 8900E	1	51	16	116	.5	14	11	1803	3.39	5	5	ND	4	11	.2	2	2	48	.09	.178	9	16	.40	141	.13	5	4.40	.02	.06	1
STANDARD C	18	57	38	131	7.2	64	27	1043	4.02	39	21	7	37	47	18.3	15	18	58	.52	.092	38	57	.93	172	.07	36	1.95	.06	.14	11

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm
10000N 9000E	1	54	18	101	.8	20	12	1092	3.76	10	5	ND	4	10	.3	3	2	51	.08	.147	9	20	.56	114	.13	5	4.40	.02	.07	1
10000N 9100E	1	58	14	89	.5	21	12	721	4.01	16	5	ND	4	12	.2	3	2	52	.09	.218	8	23	.65	113	.10	7	4.17	.02	.07	1
10100N 8050E	1	42	20	107	.5	15	13	982	3.80	7	5	ND	2	42	.6	2	2	52	.50	.090	13	20	.61	117	.08	6	2.65	.02	.06	1
10100N 8150E	1	64	17	246	.5	24	18	1952	4.44	15	5	ND	3	18	.9	2	2	56	.16	.289	11	23	.65	284	.11	7	3.80	.03	.09	1
10100N 8250E	2	195	8	82	.4	18	20	692	4.58	15	5	ND	3	20	.2	4	2	56	.17	.155	9	20	.64	151	.11	6	3.18	.02	.08	1
10100N 8350E	1	98	15	84	.6	13	12	923	2.94	6	5	ND	4	13	.2	2	2	42	.11	.214	7	13	.35	147	.14	7	4.01	.03	.06	1
10100N 8450E	1	194	18	144	.4	25	17	677	4.99	15	5	ND	3	17	.2	2	2	65	.14	.169	8	28	.82	155	.10	10	3.62	.03	.09	1
10200N 7950E	1	50	14	141	.3	21	13	931	4.35	15	5	ND	2	19	.3	2	2	57	.18	.149	9	27	.80	139	.09	6	3.06	.02	.08	1
10200N 8050E	1	41	14	187	.7	19	13	1637	3.58	11	5	ND	4	15	1.1	2	2	47	.14	.285	9	19	.51	193	.13	10	3.90	.03	.08	1
10200N 8150E	1	157	9	91	.3	21	20	798	3.73	4	5	ND	3	16	.2	2	2	56	.11	.190	7	23	.63	120	.15	5	3.75	.03	.07	1
10200N 8250E	1	152	14	88	.6	18	18	696	4.18	12	5	ND	4	18	.2	2	2	54	.12	.203	8	20	.67	136	.13	7	3.57	.03	.07	1
10200N 8350E	1	61	17	143	.2	23	13	990	4.71	14	5	ND	2	20	.4	2	2	61	.18	.168	8	27	.85	175	.09	4	2.93	.02	.08	1
10200N 8450E	1	64	14	149	.2	24	14	1255	4.35	12	5	ND	4	12	.3	2	2	55	.08	.219	8	24	.78	117	.12	8	4.23	.03	.08	1
10600N 8250E	1	35	16	118	.1	12	11	1184	3.40	7	5	ND	2	12	.3	2	2	45	.11	.215	7	14	.27	143	.16	10	3.34	.03	.06	1
10600N 8350E	1	51	14	109	.7	14	11	1029	3.17	11	5	ND	3	11	.3	2	2	37	.11	.200	7	15	.36	111	.14	4	4.81	.02	.05	1
10600N 8450E	1	100	18	97	.9	18	17	982	4.77	11	5	ND	4	12	.2	2	3	58	.08	.190	8	21	.73	149	.11	5	3.85	.02	.07	1
10700N 7900E	1	53	17	216	.5	22	13	2434	3.96	18	5	ND	4	10	.5	2	2	47	.09	.129	9	20	.57	201	.12	3	3.92	.03	.08	1
10700N 8000E	1	37	20	87	.3	11	7	1256	3.87	10	5	ND	3	15	.3	2	2	57	.11	.292	9	19	.36	111	.16	9	2.77	.02	.08	1
10700N 8100E	1	81	17	150	.3	21	15	1221	4.76	21	5	ND	4	10	.2	2	2	58	.07	.186	9	29	.78	101	.11	11	3.56	.02	.08	1
10700N 8200E	1	75	19	144	.8	22	15	931	4.02	18	5	ND	4	11	.3	2	2	48	.09	.166	13	22	.60	146	.12	11	4.14	.03	.07	1
10700N 8300E	1	41	17	105	.2	18	11	489	4.33	9	5	ND	4	10	.2	2	4	50	.07	.152	6	17	.38	106	.18	7	4.73	.02	.05	2
10700N 8400E	1	105	13	127	.4	24	17	693	4.37	11	5	ND	3	14	.2	2	2	50	.12	.153	9	21	.54	148	.14	7	4.53	.02	.05	1
10700N 8500E	1	42	14	147	.4	16	12	548	4.01	18	5	ND	3	11	.2	2	2	49	.10	.379	7	19	.50	115	.13	5	4.61	.02	.06	1
10800N 7950E	1	52	19	117	.8	13	12	697	3.63	16	5	ND	3	8	.2	2	3	42	.08	.175	5	13	.26	122	.16	4	4.19	.02	.04	1
10800N 8050E	1	56	14	104	.6	13	14	612	4.05	15	5	ND	4	10	.2	2	2	58	.07	.229	7	21	.46	92	.16	5	5.04	.02	.06	1
10800N 8150E	1	65	15	91	.9	13	7	582	3.95	15	5	ND	5	7	.2	2	2	42	.05	.189	6	11	.24	81	.18	4	5.40	.02	.04	1
10800N 8250E	1	72	15	126	.7	20	15	1197	5.37	21	5	ND	3	12	.2	2	3	61	.09	.127	7	22	.70	138	.12	4	3.71	.02	.06	1
10800N 8350E	1	41	13	102	.9	14	10	613	3.71	12	5	ND	4	8	.2	2	2	46	.06	.167	6	16	.27	92	.16	4	5.41	.02	.05	1
10800N 8450E	1	126	17	98	.4	24	63	1404	4.51	15	5	ND	1	29	.5	2	3	47	.34	.108	18	54	.53	71	.08	7	3.59	.02	.06	1
10900N 7850E	1	31	14	132	.6	17	12	766	3.65	14	5	ND	3	8	.2	2	2	43	.07	.167	8	20	.62	102	.10	6	3.88	.02	.05	1
10900N 7950E	1	34	17	161	.5	19	12	1270	3.94	14	5	ND	3	10	.4	2	2	45	.11	.229	8	21	.68	112	.10	4	3.94	.02	.05	1
10900N 8050E	1	26	17	104	.4	12	9	792	2.97	3	5	ND	3	10	.2	2	2	37	.10	.216	6	13	.26	86	.16	6	5.06	.02	.04	2
10900N 8150E	1	39	17	104	1.4	10	9	851	2.75	2	5	ND	4	7	.2	2	2	37	.06	.231	8	11	.20	79	.18	4	5.92	.02	.04	2
10900N 8250E	1	61	16	98	1.1	13	12	895	3.22	13	5	ND	4	8	.2	2	2	43	.07	.174	11	14	.30	87	.17	6	5.22	.02	.04	1
10900N 8350E	1	58	12	97	.3	23	17	1191	4.53	13	5	ND	2	15	.4	2	3	59	.13	.183	7	22	.70	138	.13	4	3.65	.02	.06	1
10900N 8450E	1	88	16	132	.1	53	24	859	5.86	36	5	ND	3	25	.4	2	2	82	.24	.232	6	70	1.47	164	.17	8	3.94	.01	.12	1
11000N 7700E	1	40	24	159	.3	23	14	1781	4.12	8	5	ND	2	13	.4	2	2	48	.12	.191	8	23	.83	152	.08	8	3.12	.02	.07	1
STANDARD C	18	59	36	131	7.4	64	27	1019	4.02	37	22	7	37	48	18.3	16	19	58	.53	.094	37	57	.95	174	.07	34	1.96	.05	.14	13

NORANDA VANCOUVER LABORATORY

Geochemical Analysis

Project Name & No.: KATIE - 124　　Geol.: T.Mc.　　Date rec'd: JUNE 27　　LAB CODE : 9007-001
Material: 46 SOILS & 2 RX　　Sheet: 1 of 2　　Date compl: JULY 10
Remarks:

ICP - 0.2 g sample digested with 3 ml HClO4/HNO3 (4:1) at 203 deg. C for 4 hours diluted to 11 ml with water. Leeman PS3000 ICP determined elemental contents.
Au - 10.0 g sample digested with aqua-regia and determined by A.A. (D.L. 5 PPB)

N.B. The major oxide elements and Ba, Be, Ce, Ga, La, Li are rarely dissolved completely from geological materials with acid dissolution methods.

T.T. No.	SAMPLE No.	Au ppb	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Ce ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	K %	La ppm	Li ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P %	Pb ppm	Sr ppm	Ti %	V ppm	Zn ppm
2	10300N-7900E	5	0.6	4.13	16	231	1.0	2	0.20	0.9	32	13	22	26	2.72	31	0.37	14	21	0.36	1710	1	0.20	17	0.16	7	26	0.23	72	93
3	8000	5	0.4	4.15	20	386	1.1	2	0.33	0.9	43	18	26	32	3.60	36	0.72	19	23	0.70	1007	2	0.09	22	0.13	8	52	0.20	108	107
4	8100	5	0.4	3.96	18	268	1.0	2	0.57	1.0	39	15	24	47	3.61	42	0.51	17	22	0.55	448	2	0.14	18	0.17	6	104	0.26	105	73
5	8200	5	0.4	4.11	19	258	1.0	2	0.29	0.9	38	17	30	28	3.22	36	0.48	17	24	0.50	1085	2	0.16	20	0.19	8	45	0.25	89	113
6	8300	5	0.4	4.31	23	356	1.1	4	0.38	1.4	45	21	38	58	4.06	40	0.63	20	23	0.81	1102	2	0.06	30	0.17	13	70	0.21	116	110
7	8400	5	0.8	4.54	21	187	1.0	2	0.15	0.9	35	13	22	32	2.92	32	0.37	15	20	0.44	514	2	0.22	18	0.19	9	28	0.21	70	84
8	10300N-8500E	5	0.6	4.57	20	158	0.9	2	0.15	0.9	31	14	19	46	2.89	33	0.32	13	20	0.41	1249	2	0.25	18	0.15	9	25	0.23	67	89
9	10400N-7900E	5	0.8	4.76	21	254	1.1	2	0.15	1.1	43	14	19	28	2.94	33	0.48	15	22	0.47	573	2	0.21	21	0.14	12	26	0.20	75	112
10	8000	5	0.6	3.92	17	282	1.0	2	0.21	1.1	42	17	28	28	3.37	34	0.56	19	23	0.60	1233	2	0.11	23	0.17	8	37	0.22	92	118
11	8100	5	0.8	3.61	13	202	1.0	2	0.17	0.8	32	14	20	25	2.46	31	0.30	13	18	0.34	954	2	0.23	16	0.16	6	28	0.22	62	72
12	8200	5	0.6	4.57	26	293	1.3	2	0.21	1.5	42	17	38	35	3.40	35	0.58	19	23	0.65	788	3	0.13	28	0.17	12	41	0.20	92	116
13	8300	5	0.8	4.69	18	180	1.3	2	0.17	1.2	33	16	25	50	2.87	32	0.33	14	19	0.46	797	2	0.22	19	0.17	8	28	0.20	71	81
14	8400	5	0.6	5.01	25	188	1.3	2	0.17	1.4	33	11	29	47	3.48	33	0.39	17	21	0.48	341	2	0.16	18	0.20	10	31	0.23	79	88
15	10400N-8500E	5	0.8	4.86	27	359	1.3	4	0.24	1.4	38	18	37	159	3.88	38	0.67	19	23	0.77	548	3	0.11	23	0.20	10	51	0.22	118	103
16	10500N-7950E	5	0.6	4.57	17	231	1.2	2	0.18	1.0	39	14	23	33	2.88	31	0.44	15	21	0.52	587	2	0.24	21	0.17	8	31	0.22	78	98
17	8050	5	0.6	4.27	14	222	1.1	2	0.19	1.0	38	14	21	33	2.80	30	0.41	15	19	0.46	739	2	0.25	18	0.19	6	33	0.21	71	91
18	8150	5	0.4	5.16	26	300	1.2	4	0.20	1.2	41	18	30	58	3.58	34	0.61	16	22	0.73	489	2	0.18	28	0.14	10	40	0.21	98	109
19	8250	5	1.0	4.54	16	206	1.0	2	0.13	0.9	35	12	19	30	2.49	27	0.34	13	18	0.37	1410	1	0.29	17	0.18	7	22	0.20	61	100
20	8350	5	0.6	4.58	39	471	1.1	4	0.26	1.3	55	19	40	101	4.23	37	0.88	25	21	0.98	582	3	0.09	30	0.15	10	60	0.19	118	107
21	10500N-8450E	5	1.0	4.17	17	195	1.0	2	0.14	0.8	31	14	25	109	2.68	26	0.35	15	18	0.38	343	2	0.23	14	0.13	4	29	0.22	70	64
22	10600N-7950E	5	0.4	4.87	22	277	1.4	2	0.15	1.2	34	14	42	40	3.05	28	0.50	15	22	0.65	524	1	0.25	28	0.16	6	28	0.21	80	104
23	8050	5	0.4	4.72	23	292	1.5	2	0.14	1.3	29	15	31	35	3.02	27	0.50	14	22	0.50	1313	2	0.22	23	0.21	9	26	0.21	77	109
24	10600N-8150E	5	0.4	4.65	24	189	1.3	2	0.15	1.3	33	15	23	53	2.73	26	0.32	13	16	0.37	765	2	0.27	18	0.24	6	29	0.20	62	102
25	11400N-7700E	5	0.6	3.42	17	336	1.2	2	0.59	2.0	52	16	33	34	3.09	38	0.46	23	20	0.61	1177	1	0.12	21	0.16	8	78	0.26	86	144
26	7800	5	0.4	3.80	31	396	1.3	8	0.97	1.4	64	26	100	70	4.34	43	0.74	30	13	1.53	771	3	0.05	64	0.12	13	89	0.21	113	144
27	7900	5	0.2	3.90	31	484	1.2	4	0.40	1.5	52	28	94	68	4.13	37	0.74	23	20	1.34	1116	2	0.08	71	0.19	10	45	0.24	104	173
28	8000	5	0.6	3.98	20	330	1.2	4	0.35	0.9	46	21	76	41	3.49	33	0.38	17	23	1.34	798	1	0.17	81	0.17	6	34	0.31	71	114
29	8100	5	0.4	3.85	44	419	1.1	5	0.33	1.4	43	19	67	40	4.21	36	0.59	19	27	0.91	1272	2	0.10	41	0.17	12	42	0.27	103	142
30	8200	5	0.6	4.39	25	308	1.2	4	0.27	0.9	52	21	64	40	3.48	35	0.40	23	24	1.07	811	2	0.18	59	0.12	9	38	0.35	78	98
31	8300	5	0.2	4.91	24	262	1.4	2	0.24	1.1	34	14	32	43	3.33	35	0.46	15	23	0.67	483	3	0.16	24	0.14	7	42	0.23	90	105
32	8400	5	0.2	4.23	20	182	1.2	2	0.25	1.1	31	14	26	32	2.90	37	0.28	14	19	0.45	1589	2	0.19	18	0.20	8	36	0.25	72	101
33	8500	5	0.4	4.03	20	228	1.3	2	0.38	1.4	37	15	24	34	3.01	41	0.36	15	22	0.50	1943	2	0.19	17	0.26	12	55	0.27	79	126
34	8600	5	0.4	4.54	19	173	1.5	2	0.24	1.1	40	13	24	55	2.97	40	0.26	15	23	0.44	361	2	0.24	19	0.12	11	34	0.29	69	93
35	8700	5	0.2	4.57	17	185	1.5	2	0.53	1.2	53	14	29	47	3.08	46	0.31	20	26	0.51	1681	2	0.16	21	0.14	12	54	0.29	75	131
36	11400N-6800E	280	0.6	4.94	20	537	1.2	3	0.31	1.3	48	18	26	107	4.37	37	1.15	22	24	0.92	1035	4	0.08	29	0.15	8	50	0.17	136	115

T.T. No.	SAMPLE No.	Au ppb	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Ce ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	K %	La ppm	Li ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P %	Pb ppm	Sr ppm	Ti %	V ppm	Zn ppm
37	11400N-8900E	5	0.4	4.52	18	392	1.1	2	0.49	1.2	48	16	33	46	3.48	42	0.64	17	22	0.76	837	2	0.15	22	0.17	8	73	0.25	107	100
38	9000	5	0.2	5.71	22	496	1.2	4	0.37	1.3	40	18	29	73	4.13	41	0.73	18	46	0.96	909	2	0.14	33	0.25	10	57	0.23	113	120
39	9100	5	0.4	4.14	15	402	1.0	2	0.58	1.3	43	15	30	35	3.10	41	0.45	17	22	0.56	2390	2	0.16	22	0.36	11	74	0.25	88	161
40	9200	5	0.6	6.02	21	502	1.3	6	0.45	1.2	53	20	31	401	4.15	41	0.67	19	40	1.03	711	3	0.15	36	0.21	16	67	0.25	113	118
41	9300	5	0.8	4.71	19	332	1.5	2	0.52	1.4	53	18	27	73	3.48	45	0.52	22	31	0.66	881	3	0.13	26	0.32	13	65	0.23	92	122
42	9400	5	0.2	4.21	18	447	1.5	5	0.69	1.6	48	19	37	51	3.75	45	0.78	21	21	0.98	1048	3	0.08	24	0.14	10	108	0.24	127	136
43	9500	5	0.2	4.67	17	513	1.5	3	0.54	1.7	55	19	29	46	3.44	42	0.63	22	23	0.69	1276	2	0.14	23	0.26	9	82	0.23	102	134
44	9600	5	0.4	4.24	18	405	1.4	3	0.57	1.7	50	17	25	40	3.32	44	0.52	21	22	0.77	1198	2	0.14	24	0.19	11	82	0.25	100	170
45	9700	5	0.4	4.38	15	368	1.4	3	0.52	1.5	43	16	23	42	3.26	41	0.48	18	24	0.68	1160	2	0.16	21	0.30	9	74	0.25	92	157
46	9800	5	0.2	4.01	15	377	1.1	2	0.64	1.2	42	16	22	35	3.26	43	0.48	17	23	0.72	965	2	0.14	21	0.26	10	91	0.26	96	151
47	11400N-9900E	5	0.2	4.02	17	306	1.1	2	0.54	1.0	43	15	22	36	3.00	43	0.38	17	22	0.60	1059	2	0.18	20	0.12	8	74	0.26	87	119
48	RX R73847	630	1.0	6.93	98	669	1.4	16	1.27	5.8	42	37	24	216	6.56	51	2.77	16	25	1.67	4812	6	0.03	55	0.12	25	39	0.04	206	854
49	RX R79848	10	0.4	2.96	15	308	1.1	8	3.39	1.0	39	23	9	586	4.52	42	1.48	16	7	1.39	538	3	0.08	15	0.14	2	169	0.05	229	35

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716

GEOCHEMICAL ANALYSIS CERTIFICATE

Katie (The)

Noranda Exploration Co. Ltd. PROJECT 9007-001 124 File # 90-2642 Page 1

P.O. Box 2380, 1050 Davie St., Vancouver BC V6B 3T5

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm
L103+00N 79+00E	1	16	18	97	.3	16	13	1796	3.01	7	5	ND	5	14	.4	2	2	43	.11	.149	8	18	.36	121	.16	2	3.98	.02	.05	1
L103+00N 80+00E	1	37	16	126	.1	24	19	1088	4.37	9	5	ND	5	23	.2	2	2	57	.17	.133	10	28	.83	136	.11	2	3.24	.01	.09	1
L103+00N 81+00E	1	54	14	82	.1	18	15	444	4.24	10	5	ND	4	32	.2	2	2	54	.18	.167	8	20	.60	118	.14	2	3.16	.01	.08	1
L103+00N 82+00E	1	26	18	129	.2	20	17	1220	3.73	13	5	ND	4	17	.3	2	2	53	.12	.182	9	24	.55	120	.15	2	3.72	.01	.07	1
L103+00N 83+00E	1	60	21	127	.1	30	22	1176	4.78	4	5	ND	2	28	.3	2	2	67	.21	.155	9	33	.92	149	.11	2	3.47	.01	.08	1
L103+00N 84+00E	1	27	14	99	.5	19	13	539	3.43	5	5	ND	5	11	.2	2	2	48	.06	.199	8	23	.49	79	.16	2	5.00	.02	.08	2
L103+00N 85+00E	1	48	16	102	.5	16	13	1372	3.28	3	5	ND	6	10	.2	2	2	45	.06	.144	7	19	.44	73	.19	2	5.08	.01	.06	1
L104+00N 79+00E	1	33	17	131	.3	22	13	615	3.45	8	5	ND	4	11	.4	2	2	44	.07	.135	8	20	.52	94	.16	2	5.03	.01	.06	1
L104+00N 80+00E	1	32	16	131	.3	22	16	1306	3.83	11	5	ND	5	16	.2	2	2	51	.10	.158	10	27	.64	107	.11	2	3.13	.01	.09	1
L104+00N 81+00E	1	14	17	80	.2	16	14	1020	2.83	3	5	ND	4	14	.2	2	2	41	.09	.157	7	16	.36	123	.17	2	3.65	.02	.06	1
L104+00N 82+00E	1	33	18	139	.4	29	17	831	4.17	8	5	ND	5	17	.3	2	2	55	.11	.168	10	28	.74	99	.14	3	4.32	.01	.09	1
L104+00N 83+00E	1	53	16	96	.2	20	16	846	3.52	9	5	ND	4	13	.2	2	2	49	.08	.166	8	24	.53	91	.16	3	5.33	.02	.05	2
L104+00N 84+00E	1	56	17	99	.4	18	10	329	4.16	13	5	ND	5	11	.3	2	2	53	.06	.195	8	25	.52	80	.16	2	5.35	.01	.07	1
L104+00N 85+00E	1	176	16	116	.5	22	17	555	4.65	21	5	ND	4	14	.2	2	2	66	.08	.194	10	33	.85	121	.11	2	3.98	.01	.07	1
L105+00N 79+50E	1	35	16	110	.2	21	15	621	3.34	9	5	ND	6	13	.2	2	2	47	.08	.162	8	22	.57	86	.18	2	4.57	.02	.07	1
L105+00N 80+50E	1	23	15	102	.2	18	14	825	3.29	5	5	ND	5	17	.2	2	2	42	.10	.186	9	20	.50	102	.16	2	4.31	.02	.07	1
L105+00N 81+50E	1	60	16	130	.3	30	18	514	4.41	11	5	ND	7	15	.2	2	2	57	.07	.140	8	31	.85	99	.17	2	5.07	.01	.10	1
L105+00N 82+50E	1	29	14	117	.6	17	12	1596	3.03	15	5	ND	5	12	.5	2	2	41	.07	.193	7	18	.40	113	.19	2	5.20	.02	.06	1
L105+00N 83+50E	1	122	18	125	.1	31	20	601	5.25	37	5	ND	5	20	.3	3	2	60	.13	.142	15	42	1.11	146	.12	2	3.30	.01	.08	1
L105+00N 84+50E	1	121	15	71	1.1	13	14	350	3.21	8	5	ND	5	10	.2	2	2	46	.06	.132	8	19	.42	97	.17	3	4.24	.02	.06	1
L106+00N 79+50E	1	40	15	117	.2	29	13	517	3.50	11	5	ND	5	13	.2	2	2	46	.08	.146	9	28	.72	104	.18	2	4.70	.02	.08	1
L106+00N 80+50E	1	35	18	124	.4	25	14	1383	3.58	8	5	ND	4	12	.2	2	2	43	.10	.200	8	26	.55	126	.16	2	4.53	.01	.08	1
L106+00N 81+50E	1	61	16	121	.2	19	16	843	3.28	15	5	ND	5	12	.4	2	2	41	.08	.249	7	20	.42	96	.17	2	5.20	.02	.06	1
L114+00N 77+00E	1	34	16	160	.1	21	16	1287	3.49	13	5	ND	1	41	1.2	2	2	46	.41	.123	11	23	.66	181	.12	2	2.80	.02	.07	1
L114+00N 78+00E	1	69	18	156	.1	66	24	713	4.89	23	5	ND	3	65	.4	2	3	60	.88	.093	18	103	1.63	107	.15	2	2.44	.01	.08	1
L114+00N 79+00E	1	70	18	195	.1	79	28	1145	4.91	28	5	ND	5	31	.9	2	2	61	.35	.178	13	85	1.54	224	.19	2	2.93	.02	.17	1
L114+00N 80+00E	1	41	12	122	.1	91	20	764	3.98	14	5	ND	5	27	.2	2	4	59	.30	.147	9	80	1.55	263	.31	3	4.04	.02	.20	1
L114+00N 81+00E	1	34	23	162	.1	46	19	1288	5.05	35	5	ND	3	27	.6	2	2	64	.26	.154	11	52	1.03	230	.18	2	2.95	.01	.09	1
L114+00N 82+00E	1	44	16	110	.1	67	20	813	4.05	11	5	ND	6	21	.2	2	2	58	.17	.109	12	71	1.26	222	.32	2	4.48	.02	.13	1
L114+00N 83+00E	1	42	14	117	.1	25	14	467	3.87	11	5	ND	4	14	.2	2	2	55	.10	.129	7	31	.78	117	.17	2	4.79	.02	.08	1
L114+00N 84+00E	1	26	14	115	.1	18	13	1648	3.36	10	5	ND	4	14	.2	2	3	51	.13	.186	7	21	.49	123	.19	2	4.53	.01	.06	1
L114+00N 85+00E	1	26	23	141	.1	17	14	2031	3.42	10	5	ND	4	28	.4	2	4	50	.22	.260	7	19	.55	157	.19	4	3.97	.02	.08	1
L114+00N 86+00E	1	52	18	99	.4	19	12	351	3.37	9	5	ND	6	16	.2	2	5	51	.13	.112	8	19	.46	125	.25	2	4.92	.02	.07	2
L114+00N 87+00E	1	38	16	134	.1	20	12	1762	3.33	8	5	ND	3	38	.3	2	2	50	.44	.115	12	22	.51	120	.22	2	4.59	.02	.07	1
L114+00N 88+00E	1	122	14	128	.2	29	18	1108	5.14	16	5	ND	2	22	.3	2	2	54	.16	.135	15	31	.98	283	.08	2	2.89	.01	.10	1
L114+00N 89+00E	1	45	14	110	.3	22	15	829	3.85	11	5	ND	5	27	.3	2	4	55	.22	.153	9	21	.82	194	.17	2	3.68	.01	.10	1
STANDARD C	18	62	35	132	7.1	71	31	990	3.82	40	24	7	39	53	18.4	15	21	57	.49	.089	38	59	.90	181	.09	33	1.91	.06	.13	14

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.
THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.
- SAMPLE TYPE: Pulp

DATE [illegible]EIVED: JUL 18 1990 DATE REPORT MAILED: July 21/[illegible] SIGNED BY. [signature] D.TOYE, C.LEONG, J.WANG; CERTIFIED B[illegible]ASSAYERS

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm
L114+00N 90+00E	1	74	14	126	.1	33	14	888	4.58	14	5	ND	5	26	.3	2	2	59	.19	.237	11	33	1.02	281	.13	2	4.83	.02	.11	1
L114+00N 91+00E	1	31	21	164	.2	22	12	2450	3.23	15	5	ND	3	35	.6	2	2	46	.33	.345	8	19	.57	270	.14	2	3.51	.02	.08	1
L114+00N 92+00E	1	449	22	125	.4	37	16	687	4.64	9	5	ND	5	30	.4	2	4	63	.24	.192	11	33	1.13	314	.16	3	5.44	.02	.12	1
L114+00N 93+00E	1	84	20	132	.6	26	15	882	4.04	12	5	ND	5	30	.4	2	2	52	.32	.315	13	24	.73	198	.16	3	4.40	.01	.10	1
L114+00N 94+00E	1	46	17	137	.1	23	14	965	3.81	19	5	ND	3	32	.4	2	2	55	.25	.116	9	23	1.04	187	.13	3	2.59	.01	.08	1
L114+00N 95+00E	1	42	15	137	.1	21	14	1221	3.59	5	5	ND	3	32	.5	2	2	48	.24	.239	10	21	.70	329	.14	2	3.64	.01	.08	1
L114+00N 96+00E	1	39	15	172	.1	22	13	1118	3.42	19	5	ND	2	27	.8	2	2	51	.20	.170	8	22	.79	256	.15	2	3.40	.01	.07	1
L114+00N 97+00E	1	42	16	158	.3	19	12	1146	3.38	12	5	ND	3	37	.6	2	2	49	.25	.281	9	22	.69	236	.14	2	3.68	.01	.09	1
L114+00N 98+00E	1	36	17	149	.2	18	11	896	3.24	14	5	ND	3	37	.4	2	2	49	.26	.236	7	20	.72	237	.15	3	3.13	.02	.10	1
L114+00N 99+00E	1	37	14	119	.1	19	11	1026	3.06	10	5	ND	2	24	.2	2	2	50	.19	.108	7	20	.60	215	.17	4	3.51	.02	.07	1
R 79847	1	263	24	941	1.4	54	29	5428	9.97	110	5	ND	1	41	4.3	6	2	43	1.43	.127	2	52	1.45	31	.01	3	2.21	.01	.27	1
R 79848	1	692	2	27	.4	11	18	529	4.76	2	5	ND	3	212	.2	3	2	68	3.77	.130	8	12	1.30	160	.01	6	.62	.05	.25	1
STANDARD C	18	57	39	132	7.2	73	28	996	3.89	41	17	7	39	52	18.6	16	19	58	.50	.092	39	61	.91	182	.09	36	1.94	.06	.14	13

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716

GEOCHEMICAL ANALYSIS CERTIFICATE

Noranda Exploration Co. Ltd. PROJECT 9007-021 124 File # 90-2343

P.O. Box 2380, 1050 Davie St., Vancouver BC V6B 3T5

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au* ppb
R 79849	1	634	5	69	.3	9	20	1114	4.54	2	5	ND	4	61	.4	3	2	127	.92	.107	16	5	1.88	58	.16	4	1.90	.04	.07	1	23
R 79850	1	1402	3	57	.8	19	50	493	20.07	8	5	ND	1	77	1.0	4	2	336	.64	.072	4	2	1.03	32	.20	2	1.35	.05	.05	1	15
R 121226	1	269	2	33	.1	10	18	415	4.96	3	5	ND	1	125	.2	2	2	134	.92	.104	4	3	1.27	46	.18	6	1.65	.02	.06	1	92
R 121227	1	518	2	37	.1	12	16	304	2.82	8	5	ND	1	136	.3	3	2	57	1.11	.119	4	20	.75	35	.21	13	1.13	.04	.01	1	32
R 121228	1	18	2	49	.1	11	19	543	5.75	13	5	ND	1	28	.2	2	2	79	.51	.111	3	14	1.46	39	.19	5	1.40	.05	.11	1	9
R 121229	1	145	10	115	.6	10	24	1375	6.11	8	5	ND	1	202	.6	2	2	44	4.69	.120	5	4	1.24	100	.01	2	1.85	.03	.15	1	2
R 121230	3	34	5	5	.1	3	2	31	2.26	19	5	ND	1	29	.2	6	2	7	.03	.074	4	4	.04	135	.01	4	.23	.05	.20	1	5

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.
THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.
- SAMPLE TYPE: Rock AU* ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPLE.

DATE RECEIVED: JUL 5 1990 **DATE REPORT MAILED:** July 12/90 **SIGNED BY**............D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716

GEOCHEMICAL ANALYSIS CERTIFICATE

Noranda Exploration Co. Ltd. PROJECT 9008-025 124 File # 90-3193 Page 1

P.O. Box 2380, 1050 Davie, Vancouver BC V6B 3T5

DDH-KT-89-4

#4

DDH-KT-89-1

#1

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au* ppb
018476 DR	11	101	11	35	.1	5	1	798	1.23	8	5	ND	14	20	.2	2	2	1	.42	.050	51	13	.04	124	.01	5	.44	.10	.16	1	7
018477 DR	1	31	9	42	.1	3	1	1007	1.33	8	5	ND	12	28	.2	2	2	1	.44	.059	47	11	.05	122	.01	2	.46	.10	.18	2	8
018478 DR	1	5	8	31	.1	4	1	799	1.35	2	5	ND	12	25	.2	2	2	1	.24	.058	50	8	.17	121	.01	5	.65	.10	.17	2	5
018479 DR	14	3182	27	113	.6	18	20	229	5.45	50	8	ND	3	21	.7	12	2	55	.22	.120	11	29	.88	170	.01	7	1.59	.04	.38	1	125
018480 DR	6	1957	11	107	1.1	24	18	244	4.64	33	8	ND	2	21	.2	7	2	60	.24	.080	14	26	1.35	67	.01	7	1.75	.04	.31	1	133
018481 DR	11	2297	8	108	3.1	18	23	386	4.15	294	9	ND	2	22	.2	123	2	36	.26	.119	18	16	.52	58	.01	11	1.16	.02	.38	1	380
018482 DR	3	2131	4	152	1.9	14	23	196	4.98	77	6	ND	1	188	1.5	346	2	40	2.00	.088	5	20	1.54	32	.01	5	1.32	.05	.28	1	144
018483 DR	2	615	2	26	.1	12	26	155	4.22	11	5	ND	1	133	.2	6	2	34	2.08	.073	3	16	1.34	31	.01	4	1.20	.08	.27	1	1
018484 DR	9	1496	2	42	.1	11	26	152	3.82	6	5	ND	1	107	.2	4	2	56	2.04	.091	4	26	1.75	28	.02	3	1.65	.10	.26	1	121
018485 DR	4	427	3	22	.1	8	15	149	4.11	2	5	ND	2	91	.2	4	2	69	2.01	.108	7	12	1.53	76	.02	3	1.96	.10	.27	1	1
018486 DR	6	312	3	15	.1	11	19	97	2.97	3	7	ND	1	92	.2	2	2	37	1.90	.084	4	20	.73	75	.01	7	1.12	.10	.32	1	2
018487 DR	3	205	7	10	.1	12	18	72	2.37	2	5	ND	1	91	.2	2	2	21	1.91	.068	3	12	.41	66	.01	7	.69	.07	.24	1	1
018488 DR	4	345	4	14	.1	12	21	87	3.37	2	6	ND	1	83	.2	2	2	44	1.70	.085	4	18	.91	62	.01	8	1.19	.08	.32	1	9
018489 DR	4	249	7	13	.1	18	25	124	6.07	2	5	ND	1	68	.2	4	2	82	1.48	.127	9	44	2.35	45	.11	2	2.26	.08	.30	1	1
018490 DR	4	696	2	22	.1	21	25	155	6.89	2	5	ND	1	94	.2	5	2	81	2.18	.111	7	56	2.53	43	.09	3	2.51	.10	.24	1	1
018491 DR	7	563	5	23	.1	20	23	144	5.07	3	5	ND	1	113	.2	3	2	69	2.64	.102	7	24	1.63	41	.02	7	1.96	.10	.25	1	4
018492 DR	4	386	5	14	.1	18	29	131	5.59	4	5	ND	1	163	.2	2	2	67	2.29	.166	5	27	1.76	65	.01	5	2.03	.08	.38	1	1
018493 DR	9	604	5	17	.1	18	32	152	4.73	2	5	ND	1	244	.2	2	2	50	3.14	.127	4	21	1.05	73	.01	4	1.58	.09	.39	1	1
018501 DR	1	726	7	67	.4	9	24	493	6.32	3	5	ND	1	153	.2	5	2	123	1.31	.217	5	13	1.44	50	.14	6	2.00	.07	.13	1	62
018502 DR	1	434	7	80	.3	10	24	558	6.71	4	5	ND	1	155	.2	6	2	116	1.41	.239	5	14	1.87	29	.15	7	2.35	.06	.08	1	12
018503 DR	1	376	9	78	.2	9	26	577	7.15	2	5	ND	1	132	.2	5	2	130	1.36	.252	5	13	1.92	62	.15	10	2.38	.07	.12	1	1
018504 DR	7	1252	2	136	.5	14	41	921	10.27	3	5	ND	1	74	.5	9	2	205	.75	.138	3	14	2.88	54	.14	9	3.34	.06	.13	1	25
018505 DR	1	482	7	68	.2	15	35	668	6.01	2	5	ND	1	134	.2	3	2	131	1.05	.070	2	13	2.03	23	.18	7	2.35	.05	.06	1	1
018506 DR	2	863	11	66	.5	14	24	493	6.02	5	5	ND	1	115	.2	4	2	122	1.11	.116	3	16	1.77	51	.15	7	2.09	.06	.09	1	153
018507 DR	3	1525	3	78	.8	14	28	550	7.51	2	5	ND	1	74	.2	4	2	138	.76	.055	2	16	2.08	37	.17	12	2.36	.05	.22	1	56
018508 DR	2	1287	2	55	.5	14	32	384	5.08	2	5	ND	1	92	.2	2	2	95	1.35	.065	2	12	1.71	20	.16	7	1.85	.04	.12	1	37
018509 DR	1	2726	10	84	.5	12	26	442	5.14	2	5	ND	1	112	.4	2	2	122	1.59	.113	3	17	1.66	20	.17	8	1.94	.06	.10	1	144
018510 DR	4	498	5	40	.3	13	26	497	4.78	5	5	ND	1	148	.2	3	2	117	2.10	.120	3	12	1.67	19	.16	7	1.95	.06	.08	1	20
018511 DR	1	574	11	40	.2	11	27	507	4.98	2	5	ND	1	134	.2	2	2	117	2.19	.147	3	11	1.67	23	.18	7	1.87	.07	.09	2	1
018512 DR	1	917	7	50	.4	11	29	500	5.64	3	5	ND	1	119	.2	2	2	102	2.41	.200	4	12	1.73	24	.14	8	1.96	.09	.09	1	98
018513 DR	1	586	7	41	.3	14	30	519	5.50	3	5	ND	1	104	.2	2	2	109	1.61	.126	3	15	1.68	22	.18	3	1.80	.07	.08	2	2
018514 DR	1	793	9	47	.2	11	26	509	4.71	3	5	ND	1	125	.2	2	2	91	1.70	.120	4	13	1.62	30	.15	10	1.89	.06	.09	3	32
018515 DR	1	714	7	50	.3	9	25	520	5.49	4	5	ND	1	116	.2	3	2	101	2.59	.171	4	12	1.78	26	.18	6	2.03	.09	.12	2	52
018516 DR	1	731	4	188	.3	7	23	558	6.44	4	5	ND	1	99	.2	5	2	115	3.14	.176	5	12	1.95	42	.12	8	2.26	.08	.21	1	92
018517 DR	1	512	11	48	.2	9	21	543	5.36	6	5	ND	1	114	.2	3	2	122	2.28	.169	5	11	1.92	37	.15	4	2.27	.10	.14	1	27
018518 DR	1	554	11	43	.2	7	22	501	4.15	2	5	ND	1	133	.2	2	2	106	2.13	.131	5	10	1.54	35	.16	6	1.79	.10	.14	1	1
STANDARD C/AU-R	17	62	38	130	7.1	71	32	1051	4.00	44	18	7	36	52	18.8	14	19	56	.51	.099	36	58	.87	179	.07	35	1.90	.06	.14	11	550

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER. THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.
- SAMPLE TYPE: Core AU* ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPLE.

DAT[illegible]CEIVED: AUG 7 1990 DATE REPORT MAILED: Aug 9/[illegible] SIGNED BY. C. Leong ...D.TOYE, C.LEONG, J.WANG; CERTIFIED [illegible] ASSAYERS

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au* ppb
018519 DR	1	427	11	32	.1	7	17	524	4.02	2	5	ND	1	123	.6	2	2	88	1.83	.120	5	12	1.41	26	.14	2	1.64	.07	.09	1	16
018520 DR	1	591	7	41	.1	11	19	497	4.06	3	5	ND	1	98	.2	2	2	89	1.72	.130	5	11	1.45	17	.14	4	1.53	.06	.07	1	22
018521 DR	1	239	3	40	.1	8	19	593	4.85	2	5	ND	1	92	.2	2	2	124	1.72	.143	6	10	1.56	22	.16	2	1.61	.06	.08	2	18
018522 DR	1	355	2	40	.1	7	17	577	4.55	2	5	ND	1	91	.3	2	2	94	1.98	.122	5	7	1.81	28	.13	4	1.86	.07	.11	2	32
018523 DR	1	555	2	38	.2	5	14	584	4.37	2	5	ND	1	113	.3	2	3	87	3.35	.099	5	6	1.50	31	.07	4	1.67	.07	.18	1	230
018524 DR	10	1072	2	38	.2	4	15	274	4.56	3	5	ND	3	222	.7	2	2	53	3.19	.104	4	6	1.15	26	.01	7	1.18	.06	.17	1	119
018526 DR	2	876	4	45	.1	7	15	281	3.14	6	5	ND	1	165	.2	3	2	71	3.22	.123	6	12	1.93	39	.01	3	1.64	.08	.21	1	30
018527 DR	2	2371	2	75	.3	13	30	471	3.87	12	5	ND	1	185	.5	3	4	38	4.06	.109	5	15	1.53	29	.01	5	1.05	.05	.21	1	52
018528 DR	1	1253	6	63	.1	20	23	368	6.17	6	5	ND	1	228	.7	5	2	134	3.59	.112	6	95	2.92	19	.01	2	2.43	.09	.08	1	45
018529 DR	6	801	2	66	.2	13	23	396	4.77	26	5	ND	1	229	.8	30	2	20	3.62	.106	3	19	1.83	25	.01	5	.72	.02	.22	1	37
018530 DR	3	2210	9	404	4.8	20	26	1417	4.68	197	5	ND	1	224	2.9	658	2	14	3.73	.120	2	16	1.59	38	.01	12	.54	.01	.27	1	230
018531 DR	3	2138	29	454	4.7	16	20	894	4.01	188	5	ND	1	202	3.2	620	2	27	3.80	.102	3	16	1.64	51	.01	7	.68	.03	.24	1	66
018532 DR	2	1156	6	59	.2	12	23	361	3.82	10	5	ND	1	146	.5	15	2	38	3.87	.121	4	24	1.56	72	.01	3	1.04	.06	.15	1	38
018533 DR	1	380	2	40	.1	13	15	315	3.45	9	5	ND	1	93	.2	6	2	75	3.11	.088	4	44	1.99	91	.01	3	1.73	.06	.15	1	22
018534 DR	1	1054	5	47	.1	17	24	374	3.94	5	5	ND	2	94	.2	4	3	87	3.56	.097	6	35	2.05	42	.04	3	2.07	.09	.09	1	35
018535 DR	3	811	5	52	.1	15	20	292	3.53	8	5	ND	1	74	.2	3	3	78	3.28	.091	6	30	1.56	23	.05	2	1.61	.08	.12	1	60
018536 DR	2	653	3	31	.1	9	14	233	3.81	9	5	ND	2	61	.2	3	2	71	2.46	.096	5	21	1.40	27	.07	3	1.44	.08	.15	1	130
018537 DR	11	687	2	28	.1	12	21	190	3.68	12	5	ND	2	59	.5	3	2	70	2.35	.087	4	21	1.37	23	.10	3	1.42	.07	.16	1	69
018538 DR	3	394	8	30	.1	12	13	163	2.22	4	5	ND	2	76	.2	2	3	69	3.01	.087	5	26	1.18	18	.12	5	1.17	.09	.14	1	23
018539 DR	5	495	2	27	.1	12	15	186	1.89	6	5	ND	2	78	.2	2	2	63	3.00	.094	5	25	1.15	53	.13	3	1.24	.08	.21	1	21
STANDARD C/AU-R	18	62	40	140	7.0	69	32	1052	3.99	42	18	7	37	51	18.5	15	21	55	.51	.098	36	58	.87	183	.07	36	1.91	.06	.14	11	550

DDH-KT-89-3

APPENDIX V

STATEMENT OF COSTS

FILE.KATIE.TM

KATIE GROUP

COST STATEMENT

WAGES:

T. McI.	38 mandays x $177.27	
S.L.	31 mandays x $124.09	
C.W.	20 mandays x $ 92.18	$12,426.65

ACCOMMODATIONS:

June 04/90 to July 04/90 - 30 days @ $64.08/day	
July 31/90 to Aug. 04/90 - 5 days @ $30.24/day	$ 2,073.60

GROCERIES/MEALS:

June 04/90 to July 04/90 - 82 m.d. @ $26.56/man	
July 31/90 to Aug. 06/90 - 7 m.d. @ $37.02/man	$ 2,437.06

TRUCK:

June 04/90 to July 04/90 - 31 days @ $46.50/day	
July 31/90 to Aug. 06/90 - 7 days @ $42.00/day	$ 1,735.50

GAS:

June 04/90 to July 04/90 - 31 days @ $10.80/day	
July 31/90 to Aug. 06/90 - 7 days @ $17.28/day	$ 455.76

SUPPLIES (FIELD):

Flagging, chain, files, blueprints, etc.	$ 524.40

TRANSPORTATION (BUS):	$ 71.26
MISCELLANEOUS:	$ 419.85
SHIPPING:	$ 145.65
FIELD EQUIPMENT, REPAIR/RENTAL:	$ 198.31

FILE.KATIE.TM

COSTS FOR KATIE GROUP continued:

GEOCHEMICAL ANALYSIS:		$10,075.15
GEOPHYSICAL SURVEYS:		
I.P. Survey	$28,602.30	
Magnetometer Survey	$ 5,606.80	$34,209.10
REPORT WRITE-UP AND PREPARATION		
Author	$600.00	
Drafting	$600.00	
Typing	$200.00	$ 1,400.00
	TOTAL COST:	$66,172.37

GEOCHEMICAL ANALYSIS

COSTS FOR THE KATIE GROUP

1. Rocks *

```
26 samples x $6.25/sample analysis by ICP for 30 elements
26 samples x $4.50/sample analysis by AA for Au
26 samples x $2.40/sample handling & preparation
26 samples x $1.50/sample data processing
26 samples x $3.00/sample crushing & pulverizing
----------
26 samples x $17.65/sample                          $  458.90
==========                                          =========
```

2. Soils *

```
693 samples x $6.25/sample analysis by ICP for 30 elements
693 samples x $3.50/sample analysis by AA for Au
693 samples x $1.60/sample drying & sieving
693 samples x $1.10/sample data processing
-----------
693 samples x $12.45/sample                         $ 8,627.85
===========                                         ==========
```

3. Drill Core *

```
56 samples x $6.25/sample analysis by ICP for 30 elements
56 samples x $4.50/sample analysis by AA for Au
56 samples x $2.40/sample handling & preparation
56 samples x $1.50/sample data processing
56 samples x $3.00/sample crushing & pulverizing
----------
56 samples x $17.65/sample                          $   988.40
==========                                          ==========
```

TOTAL OF ANALYSIS COSTS: $10,075.15

* Analysis by 30 element ICP: Mo, Cu, Pb, Zn, Ag, Ni, Co, Mn, Fe, As, U, Au, Th, Sr, Cd, Sb, Bi, V, Ca, P, La, Cr, Mg, Ba, Ti, B, Al, Na, K, W.

FILE.KATIE.TM

APPENDIX VI

STATEMENT OF QUALIFICATIONS

STATEMENT OF QUALIFICATIONS
****

I, Terence J. McIntyre, of the City of Vancouver, Province of British Columbia, do hereby certify that:

1. I am a geologist residing at 3373 River Road West, Delta, B.C.

2. I graduated from the Montana College of Mineral Science and Technology, with a B.Sc in geological engineering in 1986.

3. I am a member in good standing of the Association of Professional Engineers of British Columbia; registration number 16,974.

4. I have worked in mining and mineral exploration since 1983 and have practised my profession as a geologist since May 1987.

5. I am presently employed as a geologist with Noranda Exploration Company, Limited.

6. The preceding report was prepared by myself and comprises work performed by myself or by others under my direct supervision.

Terence J. McIntyre. P.Eng.

STATEMENT OF QUALIFICATIONS

I, Lyndon Bradish of Vancouver, Province of British Columbia, do hereby certify that:

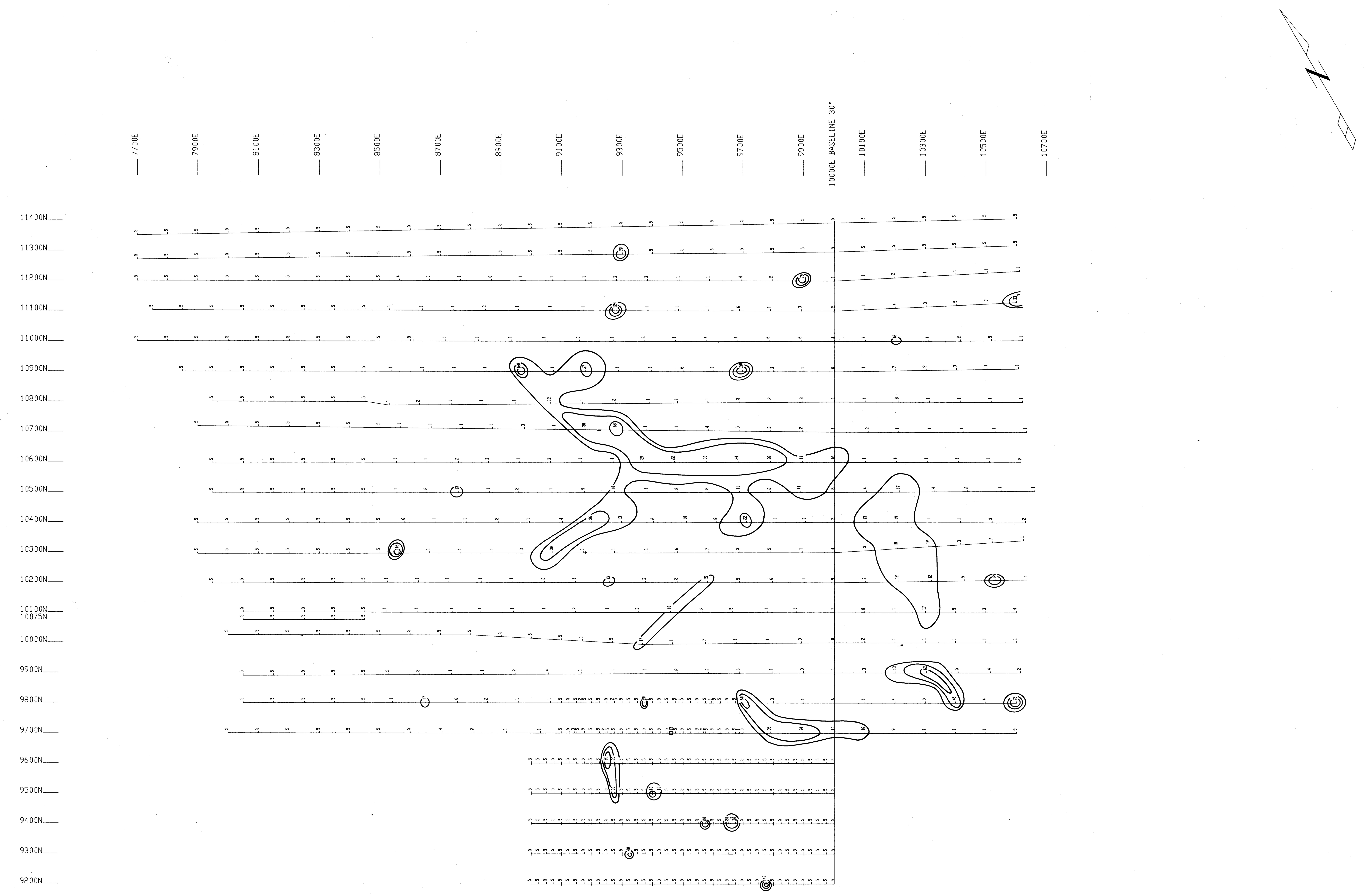
1. I am a Geophysicist residing at 1826 Trutch Street, Vancouver, B.C.

2. I am a graduate of the University of British Columbia with a B.Sc. (geophysics).

3. I am a member in good standing in the Society of Exploration Geophysicists, European Association of Exploration Geophysicists and the Prospector's and Developer's Association.

4. I presently hold the position of Regional Geophysicist with Noranda Exploration Company, Limited and have been in their employ since 1973.

L. Bradish.



GEOLOGICAL BRANCH
ASSESSMENT REPORT

20,331

Contour Interval : 10 ppb
20 ppb
50 ppb

100m 50m 0m 100m 200m

KATIE

SOIL GEOCHEMICAL SURVEY
PPB Au
PROJECT: KATIE PROJECT # : 124
BASELINE AZIMUTH : 30 Deg.

SCALE = 1: 5000 DATE : 7/ 4/90
SURVEY BY : T MCINTYRE P.Eng. NTS : 82F/03
FILE: C124KAT
NORANDA EXPLORATION

LEGEND

ROSSLAND VOLCANICS:
LOWER AND MIDDLE JURASSIC

ELISE FORMATION

1	Andesite Ash Tuff
1.1	Crystal Tuff
1.2	Andesite Lapilli Tuff
1.3	Andesite Agglomerate
1.4	Augite Porphyry
1.5	Andesite Flow
2	Basaltic Ash Tuff

ARCHIBALD FORMATION

3	Siltstone
3.1	Argillite

NELSON INTRUSIVES:

JURASSIC

5	Melanocratic Diorite
5.1	Diorite
5.2	Granodiorite
5.3	Quartz Diorite
5.4	Melanocratic Quartz Diorite
5.5	Leucodiorite
6	Granite

TERTIARY DYKES

7	Lamprophyre
8	Aplite
10	Feldspar Porphyry

BRECCIAS

4	Aplite Breccia
4.1	Siliceous Breccia

ALTERATION

a	Silification
b	Sericitization
c	Chloritization
d	Carbonatization
e	Epidotization
i	Jarosite
g	Goethite
h	Hematite

SYMBOLS

- Creek
- Gulley
- Shear Zone
- Shear - Strike and Dip Orientation
- Outcrop
- Subcrop
- x Float - Pebble to Boulder Size

GEOLOGICAL BRANCH ASSESSMENT REPORT

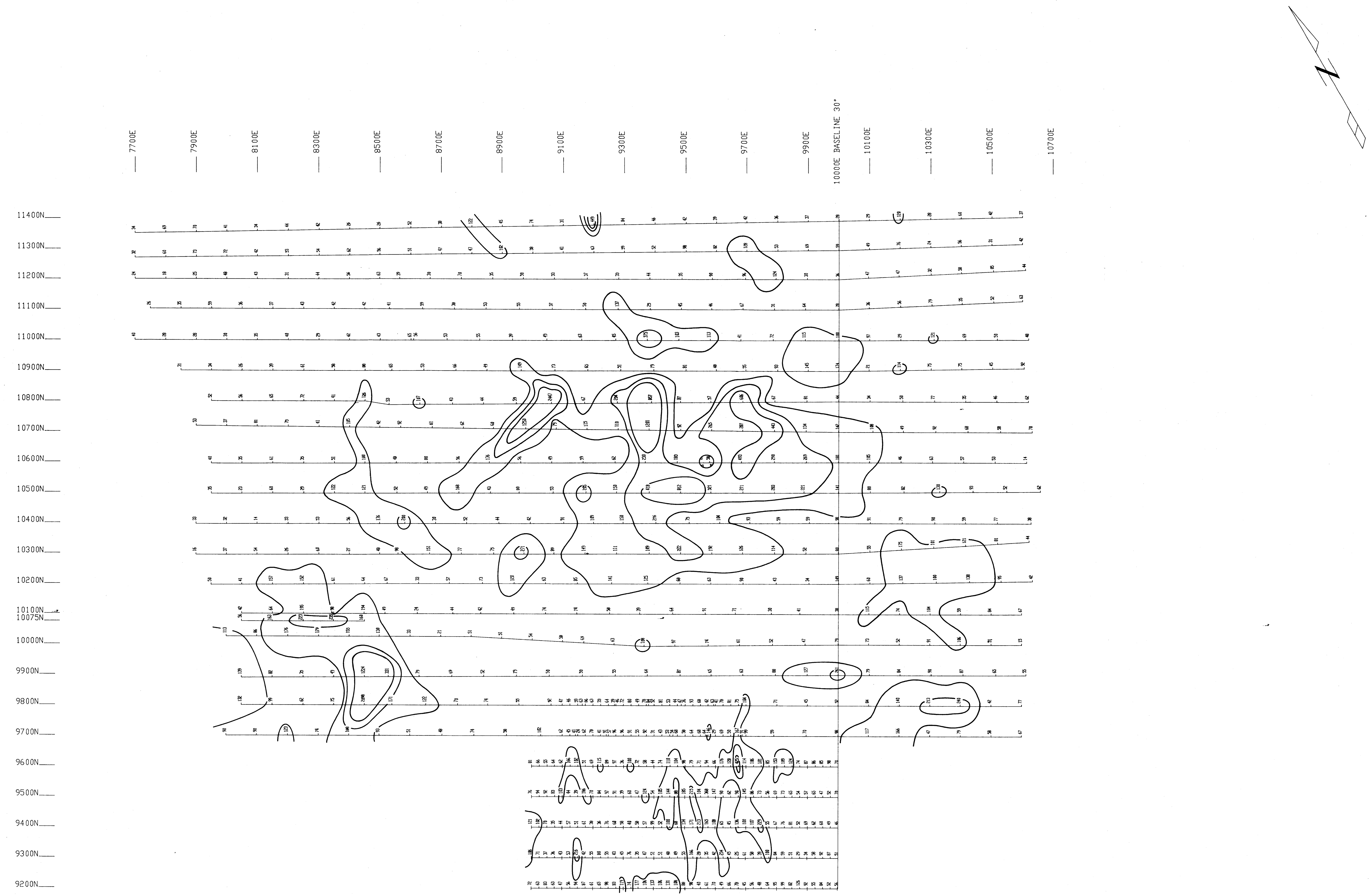
20,331

SCALE 1:2,500

Metres 50 25 0 50 100 150 200 Metres

REVISED	KATIE PROPERTY
	GEOLOGY
PROJ. No. 124	SURVEY BY: T. McIntyre DATE: JULY/04/1990
N.T.S. 82F/3	DRAWN BY: J. Serwin SCALE: 1:2,500
DWG. No 5	NORANDA EXPLORATION OFFICE: VANCOUVER

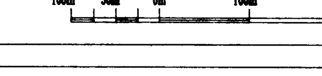
77+00 E.
78+00 E.
79+00 E.
80+00 E.
81+00 E.
82+00 E.
83+00 E.
84+00 E.
85+00 E.
86+00 E.
87+00 E.
88+00 E.
89+00 E.
90+00 E.
91+00 E.
92+00 E.
93+00 E.
94+00 E.
95+00 E.
96+00 E.
97+00 E.
98+00 E.
99+00 E.
100+00 E.
101+00 E.
102+00 E.
103+00 E.
104+00 E.
105+00 E.
106+00 E.
BL.
L. 114+00 N.
L. 113+00 N.
L. 112+00 N.
L. 111+00 N.
L. 110+00 N.
L. 109+00 N.
L. 108+00 N.
L. 107+00 N.
L. 106+00 N.
L. 105+00 N.
ZONE OF SILICIFICATION AND GOETHITIC & HEMATITIC ALTERATION. MINERALIZATION: PYRITE, CHALCOPYRITE, MALACHITE AND MAGNETITE.
DDH-KT-89-1
DDH-KT-89-2
DDH-KT-89-3
DDH-KT-89-4
TRENCH 105+00N 92+50E
R 120778
R 120777
R 120776
R 79842
R 79839
R 120726
R 120727
R 7984
R 79840
R 79841
R 120728
R 121228
R 79846
R 79845
R 79848



GEOLOGICAL BRANCH ASSESSMENT REPORT

20,331

Contour Interval : 100 ppm
: 200 ppm
400 ppm



KATIE

SOIL GEOCHEMICAL SURVEY

PPM Cu

PROJECT: KATIE PROJECT # : 124

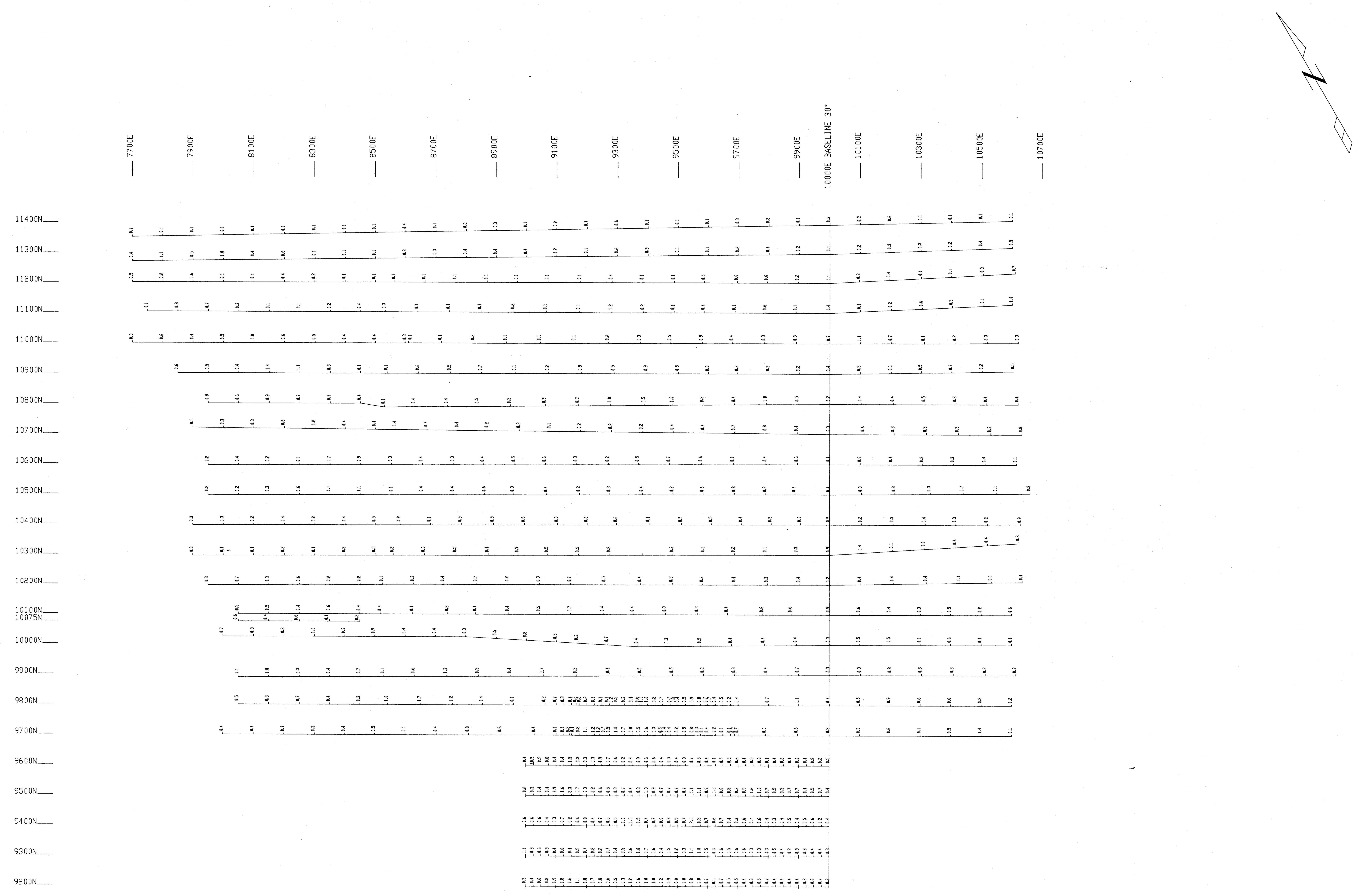
BASELINE AZIMUTH : 30 Deg.

SCALE = 1: 5000 DATE : 7/ 4/90

SURVEY BY : T MCINTYRE P.Eng. NTS : 82F/03

FILE: C124KAT

NORANDA EXPLORATION



GEOLOGICAL BRANCH
ASSESSMENT REPORT

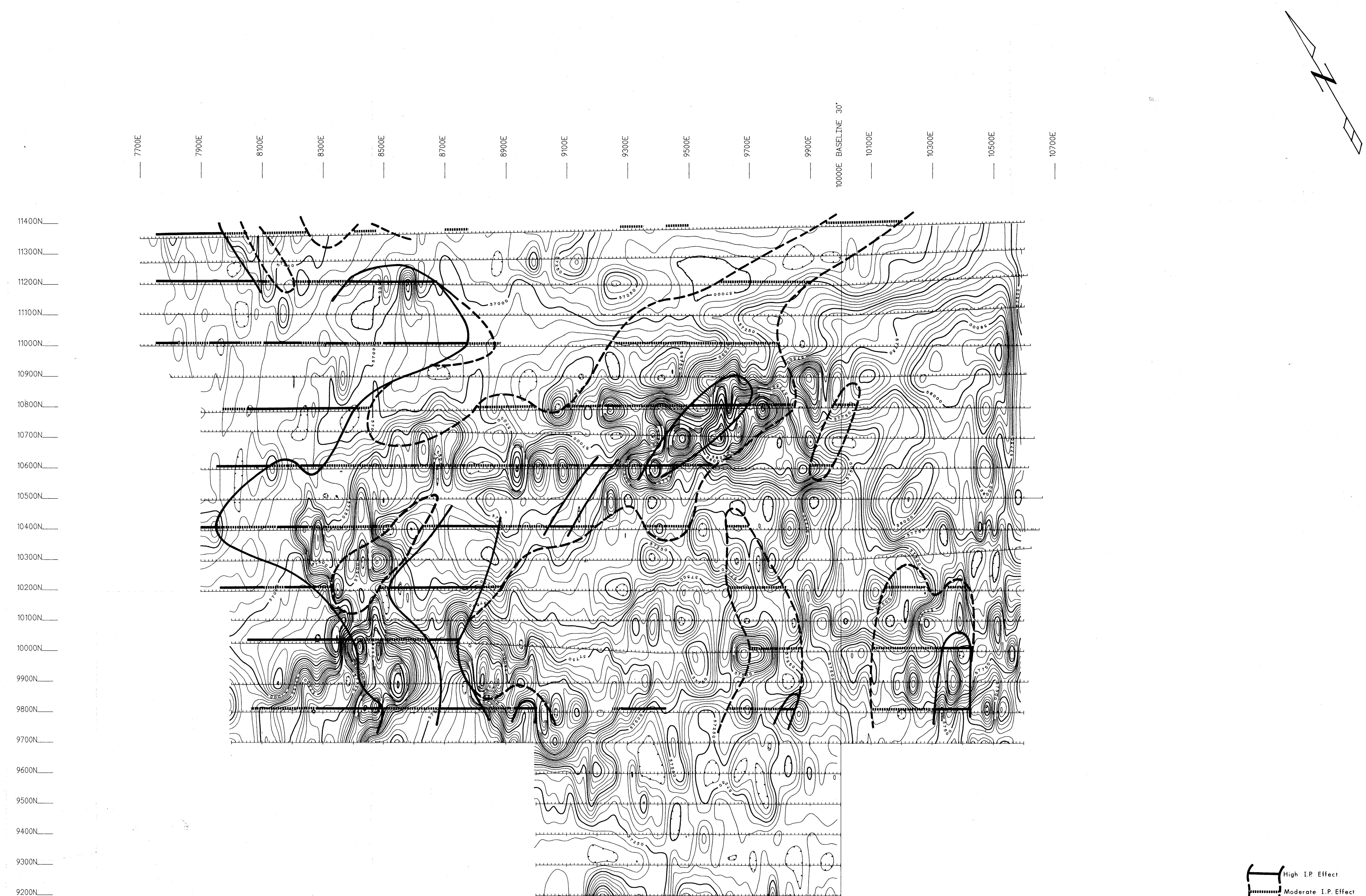
20,331

Contour Interval :

KATIE

SOIL GEOCHEMICAL SURVEY
PPM Ag
PROJECT: KATIE PROJECT # : 124
BASELINE AZIMUTH : 30 Deg.

SCALE = 1: 5000 DATE : 7/ 4/90
SURVEY BY : T MCINTYRE P.Eng. NTS : 82F/03
FILE: C124KAT
NORANDA EXPLORATION



High I.P. Effect

Moderate I.P. Effect

GEOLOGICAL BRANCH ASSESSMENT REPORT

20,331

Instrument	:	OMNI +
Field	:	TOTAL
Datum	:	0.0 nT
Contour Interval	:	
Conductor Axis	:	

100m 50m 0m 100m 200m

KATIE

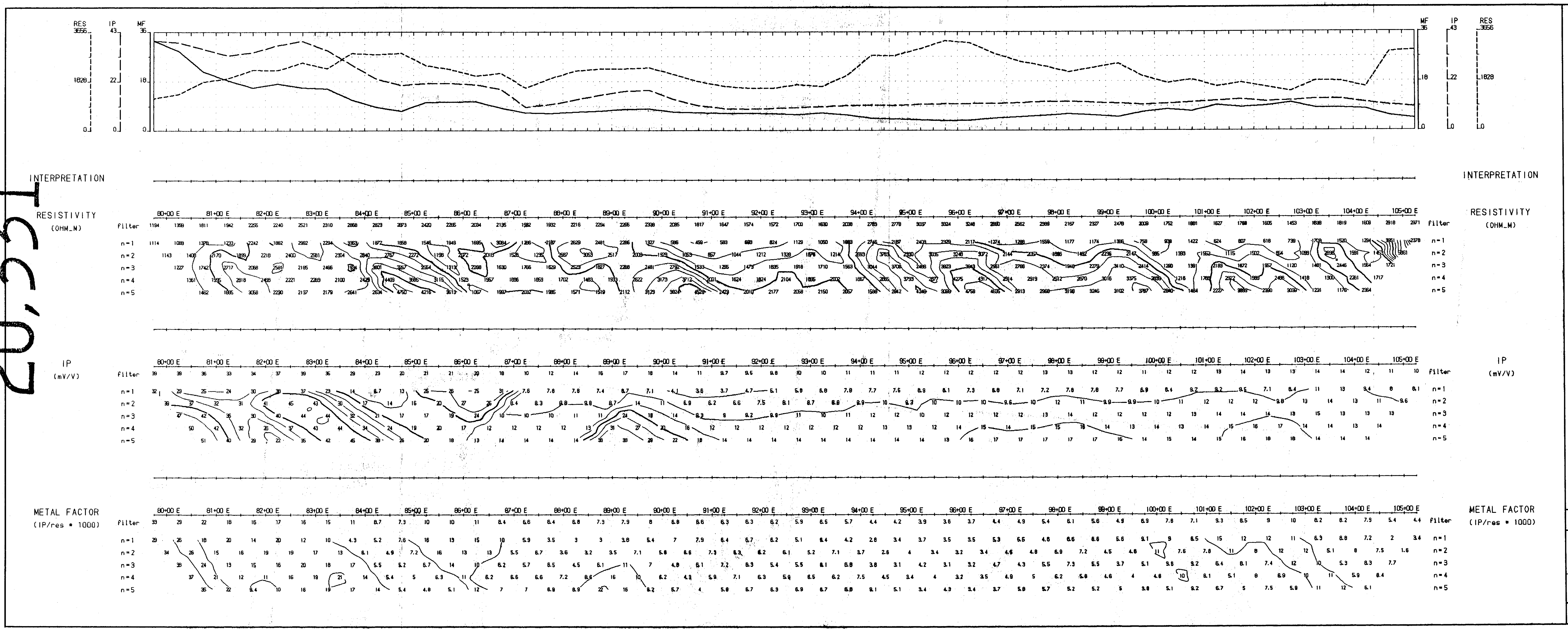
MAGNETOMETER & I.P. COMPILATION

PROJECT: KATIE PROJECT # : 124
BASELINE AZIMUTH : 30 Deg.

SCALE = 1 : 5000 DATE : / /
SURVEY BY : LLOYD NTS : 82F/03
FILE: M124KAT
NORANDA EXPLORATION

GEOLOGICAL BRANCH
ASSESSMENT REPORT

20,331



Line 10200 N
Pole-Dipole Array

a = 50 M

plot point

Filter

Logarithmic Contours 1, 1.5, 2, 3, 5, 7.5, 10,...

INTERPRETATION

- Strong increase in polarization
- Moderate increase in polarization
- Pronounced resistivity increase
- Pronounced resistivity decrease

Scale 1:5000

50 0 50 100 150 200 250 (metres)

KATIE PROPERTY

INDUCED POLARIZATION SURVEY
Line 10200 N
Project

Date: 90/09/10
Interpretation by: L. Bradish

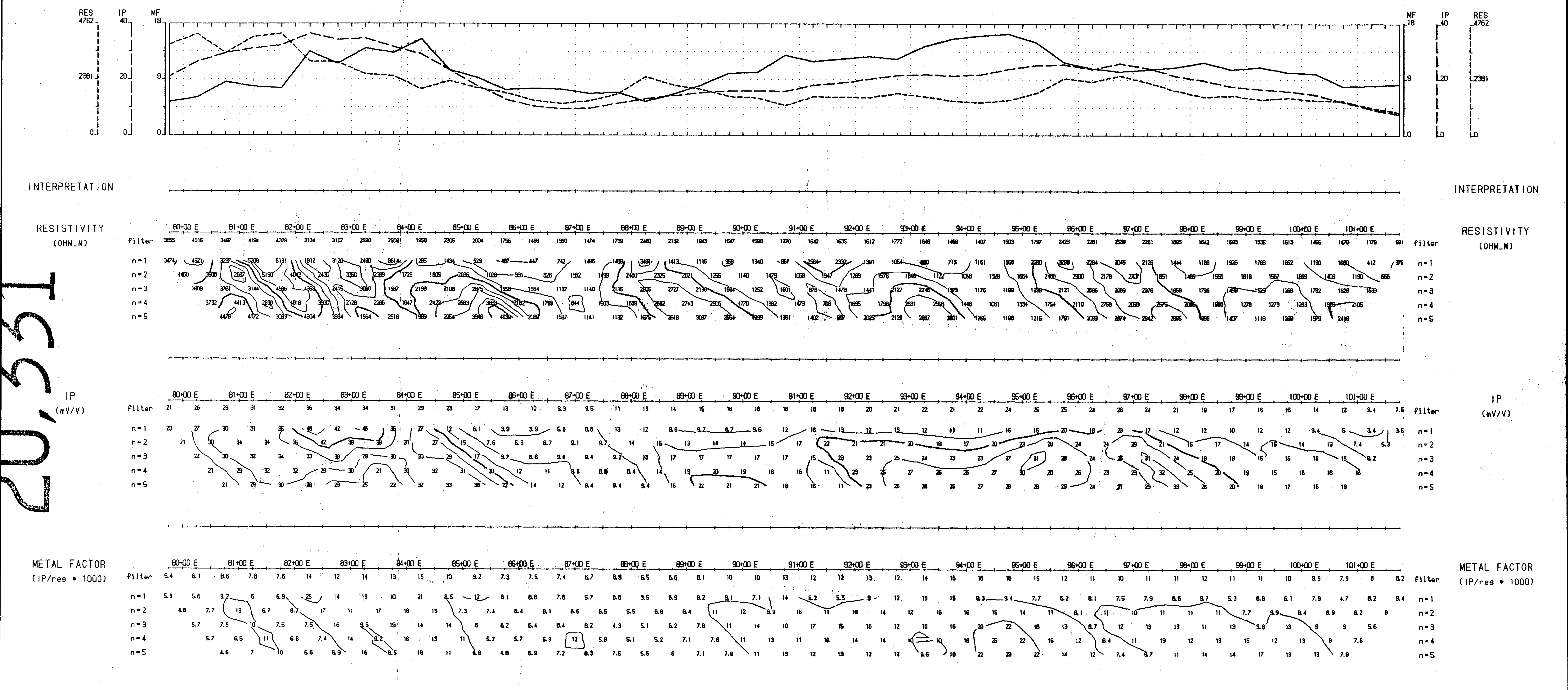
noranda

GEOLOGICAL BRANCH
ASSESSMENT REPORT

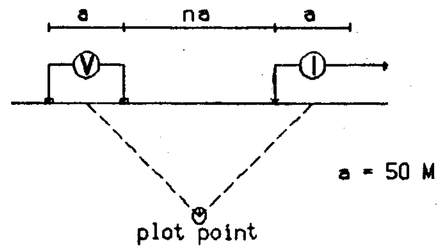
20,351

GEOLOGICAL BRANCH
ASSESSMENT REPORT

20,331



Line 10800 N
Pole-Dipole Array



Filter

Logarithmic Contours 1, 1.5, 2, 3, 5, 7.5, 10,...

INTERPRETATION

- Strong increase in polarization
- Moderate increase in polarization
- Pronounced resistivity increase
- Pronounced resistivity decrease

Scale 1:5000

50 0 50 100 150 200 250 (metres)

KATIE PROPERTY

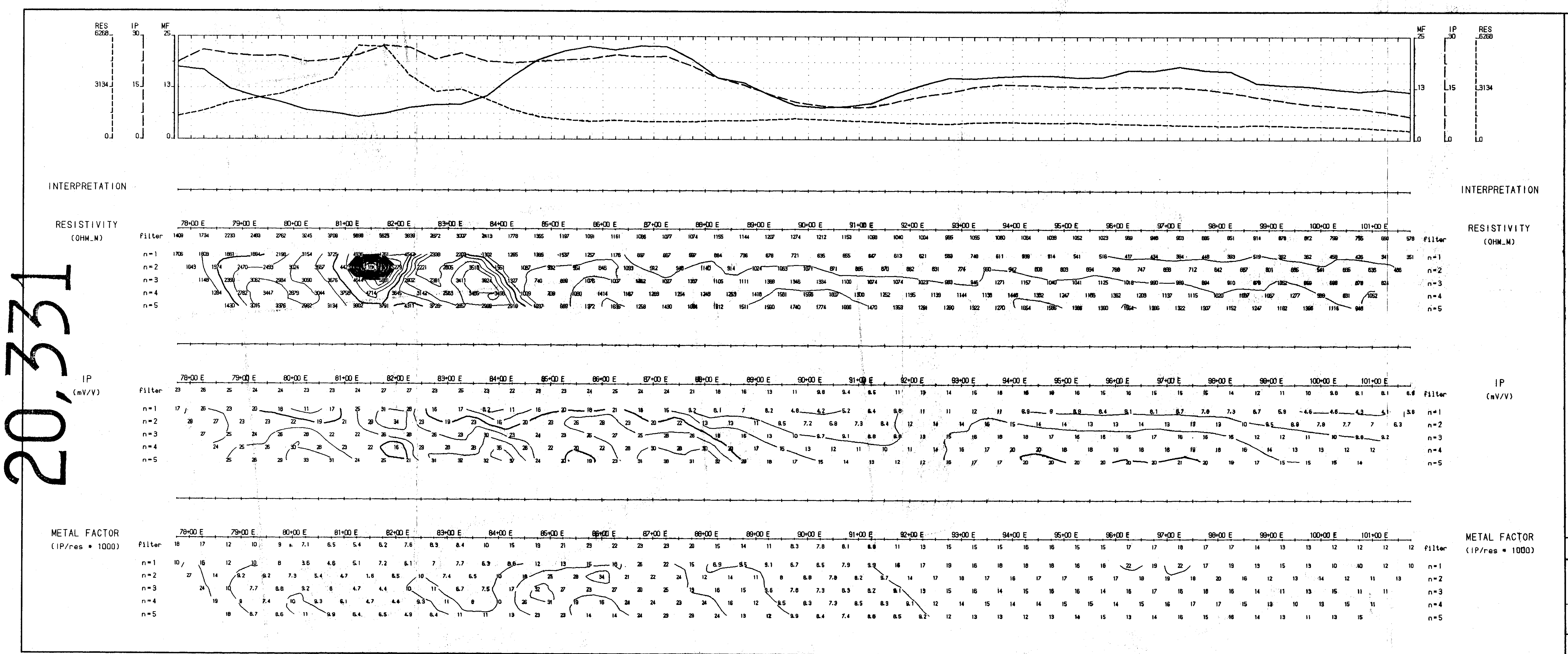
INDUCED POLARIZATION SURVEY
Line 10800 N
Project

Date: 90/09/11
Interpretation by: L. Bradish

noranda

GEOLOGICAL BRANCH
ASSESSMENT REPORT

20,331



Line 11000 N
Pole-Dipole Array

a = 50 M

plot point

Filter

Logarithmic Contours 1, 1.5, 2, 3, 5, 7.5, 10,...

INTERPRETATION

- Strong increase in polarization
- Moderate increase in polarization
- Pronounced resistivity increase
- Pronounced resistivity decrease

Scale 1:5000

50 0 50 100 150 200 250 (metres)

KATIE PROPERTY

INDUCED POLARIZATION SURVEY
Line 11000 N
Project

Date: 90/09/11
Interpretation by: L. Bradish

noranda

GEOLOGICAL BRANCH
ASSESSMENT REPORT

20,331

Line 11400 N
Pole-Dipole Array

a = 50 M

plot point

Filter

Logarithmic Contours 1, 1.5, 2, 3, 5, 7.5, 10,...

INTERPRETATION

- Strong increase in polarization
- Moderate increase in polarization
- Pronounced resistivity increase
- Pronounced resistivity decrease

Scale 1:5000

50 0 50 100 150 200 250 (metres)

KATIE PROPERTY

INDUCED POLARIZATION SURVEY
Line 11400 N
Project

Date: 90/09/11
Interpretation by: L. Bradish

noranda

Line 11200 N
Pole-Dipole Array

a = 50 M

plot point

Filter

Logarithmic Contours 1, 1.5, 2, 3, 5, 7.5, 10, ...

INTERPRETATION

- Strong increase in polarization
- Moderate increase in polarization
- Pronounced resistivity increase
- Pronounced resistivity decrease

Scale 1:5000

50 0 50 100 150 200 250 (metres)

KATIE PROPERTY

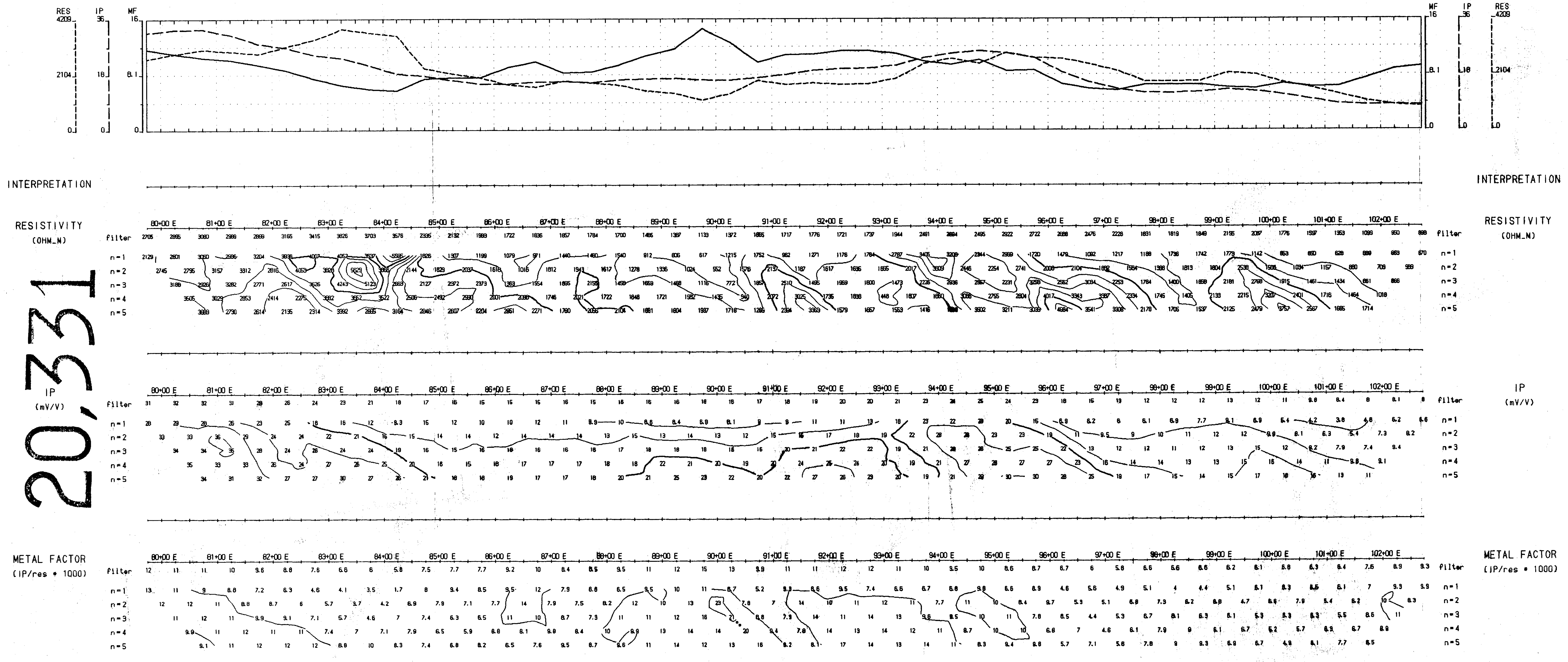
INDUCED POLARIZATION SURVEY
Line 11200 N
Project

Date: 90/09/11
Interpretation by: L. Bradish

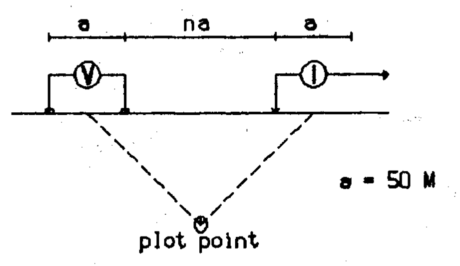
noranda

GEOLOGICAL BRANCH
ASSESSMENT REPORT

20,331



Line 10600 N
Pole-Dipole Array



Filter

Logarithmic Contours 1, 1.5, 2, 3, 5, 7.5, 10,...

INTERPRETATION

- Strong increase in polarization
- Moderate increase in polarization
- Pronounced resistivity increase
- Pronounced resistivity decrease

Scale 1:5000

50 0 50 100 150 200 250

(metres)

KATIE PROPERTY

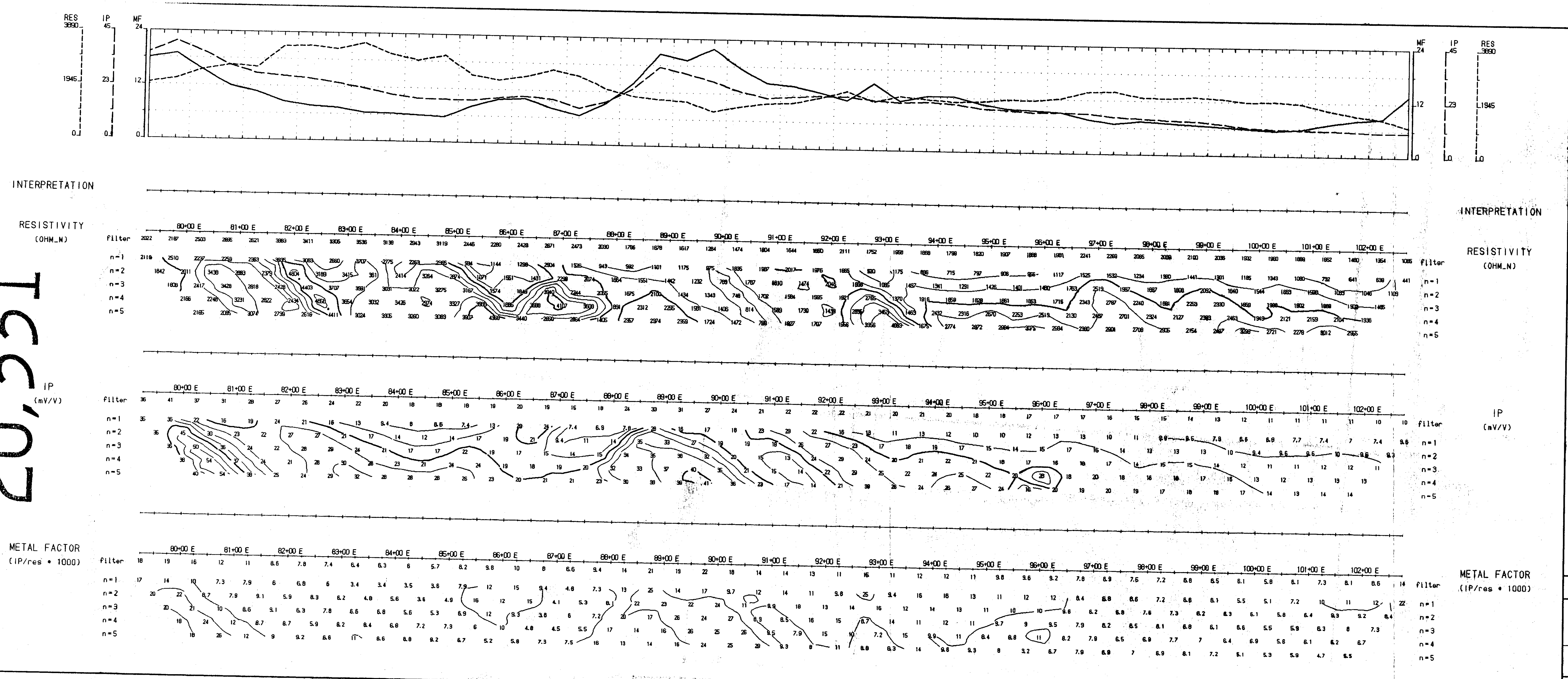
INDUCED POLARIZATION SURVEY
Line 10600 N
Project

Date: 90/09/11
Interpretation by: L. Bradish

noranda

GEOLOGICAL BRANCH
ASSESSMENT REPORT

20,331



Line 10400 N
Pole-Dipole Array

a = 50 M

plot point

Filter

Logarithmic Contours 1, 1.5, 2, 3, 5, 7.5, 10,...

INTERPRETATION

- Strong increase in polarization
- Moderate increase in polarization
- Pronounced resistivity increase
- Pronounced resistivity decrease

Scale 1:5000

50 0 50 100 150 200 250
(metres)

KATIE PROPERTY

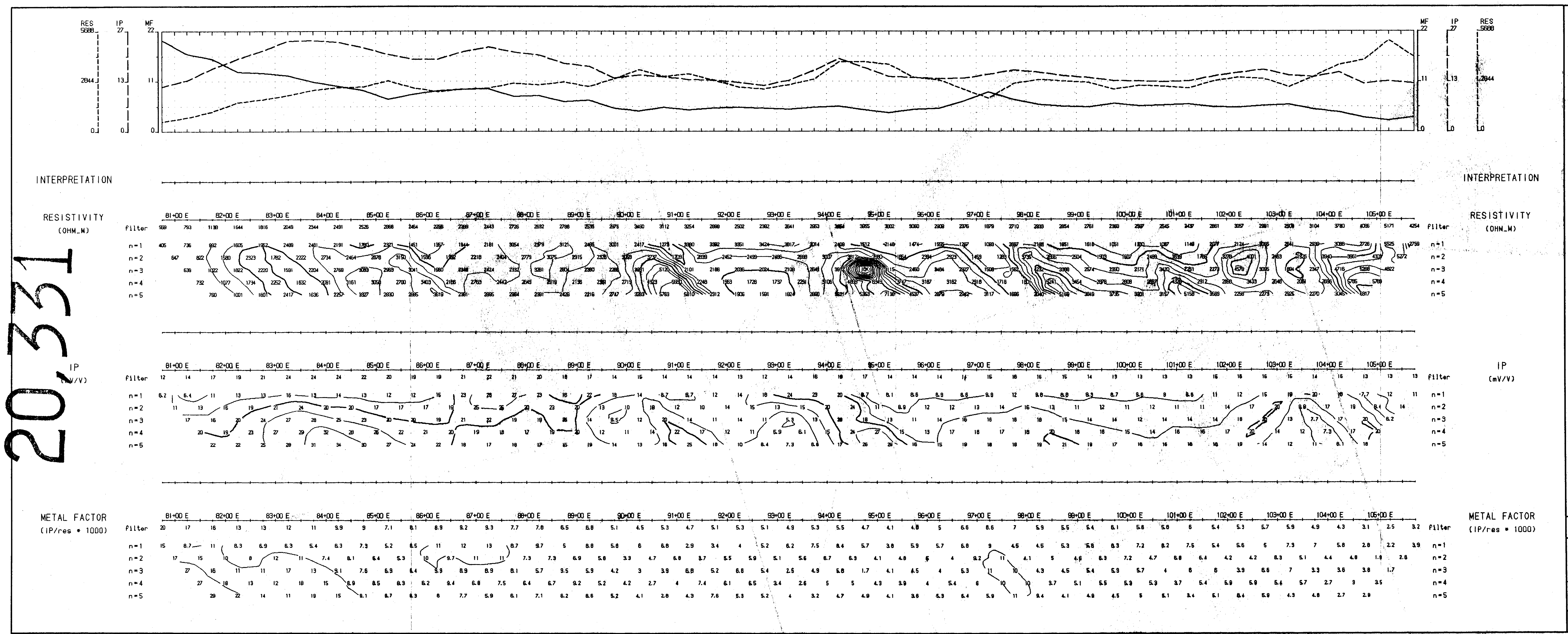
INDUCED POLARIZATION SURVEY
Line 10400 N
Project

Date: 90/09/10
Interpretation by: L. Bradish

noranda

GEOLOGICAL BRANCH
ASSESSMENT REPORT

20,331



Line 9800 N
Pole-Dipole Array

a = 50 N

plot point

Filter

Logarithmic Contours 1, 1.5, 2, 3, 5, 7.5, 10,...

INTERPRETATION

- Strong increase in polarization
- Moderate increase in polarization
- Pronounced resistivity increase
- Pronounced resistivity decrease

Scale 1:5000

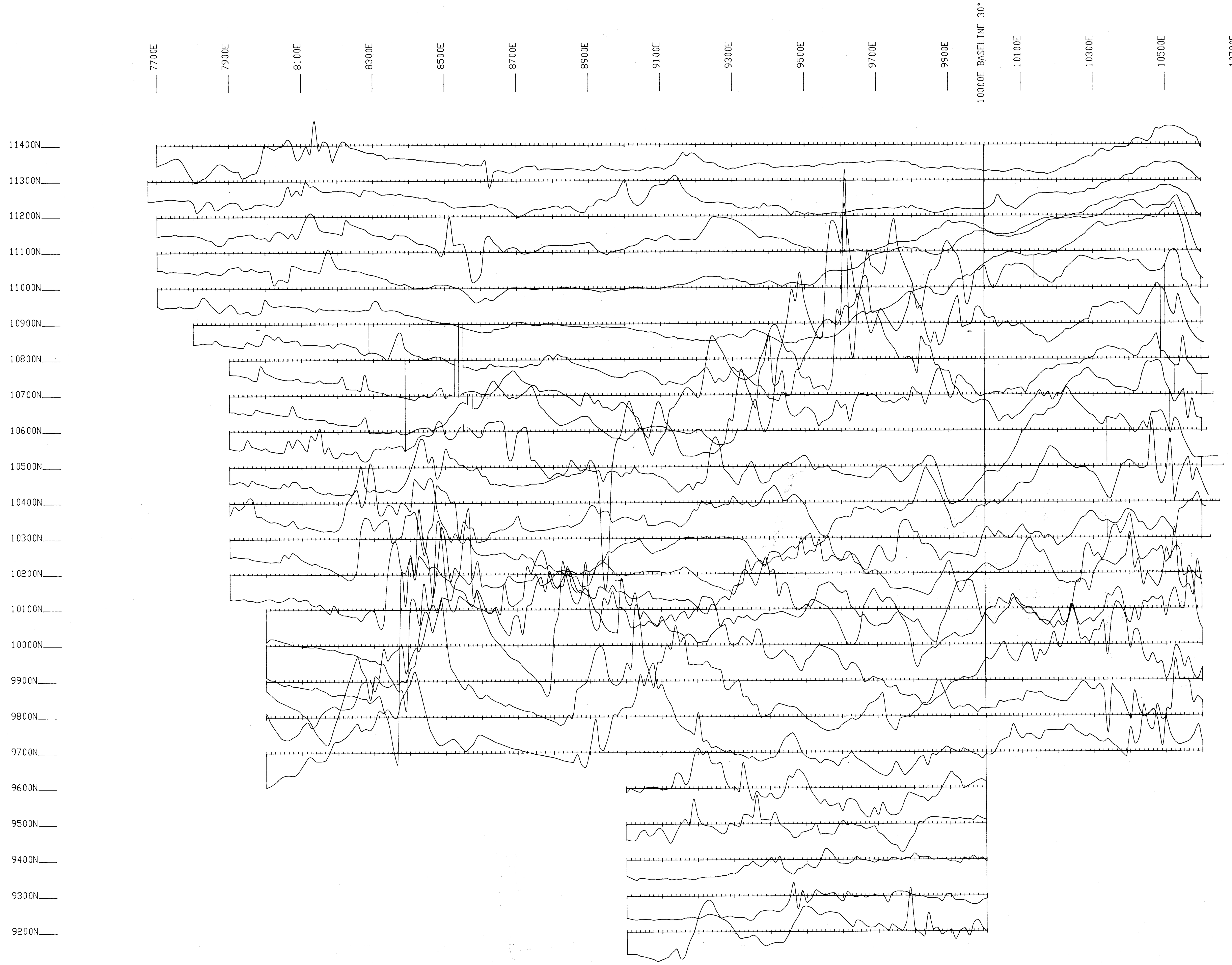
50 0 50 100 150 200 250 (metres)

KATIE PROPERTY

INDUCED POLARIZATION SURVEY
Line 9800 N
Project

Date: 90/09/10
Interpretation by: L. Bradish

noranda



GEOLOGICAL BRANCH ASSESSMENT REPORT

20,331

Instrument : OMNI +
Field : TOTAL
Datum : 0.0 nT

Contour Interval :

Profile Scale : 200 nT / Cm

Conductor Axis :

57569nT
57369nT
57169nT

100m 50m 0m 100m 200m

KATIE

MAGNETOMETER SURVEY

PROJECT: KATIE PROJECT # : 124
BASELINE AZIMUTH : 30 Deg.

SCALE = 1 : 5000 DATE : / /
SURVEY BY : LLOYD NTS : 82F/03
FILE: M124KAT
NORANDA EXPLORATION