GEOLOGICAL, GEOCHEMICAL, & GEOPHYSICAL

REPORT ON THE

ARC 10, 11, & 12

MINERAL CLAIMS

ARC OPTION

Liard Mining Division
N.T.S. 104 B/10E

Latitude: 56° 40' N
Longitude: 130° 38' W

NORANDA EXPLORATION COMPANY, LIMITED
(no personal liability)

REPORT BY: ERIC GRILL
MIKE SAVELL
TED WONG

NOVEMBER, 1990

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1.0 SUMMARY

In 1989 high-grade gold mineralized float was discovered in moraine at the toe of a glacier located on the southern half of the Arc 10 claim. Samples of pyrite rich quartz float boulders assayed up to 28.56 grams/tonne gold.

The most encouraging results of the 1990 field program were obtained in the SW corner of the Arc 10 claim, where grid soil sampling has outlined a linear gold anomaly approximately 800 m in length with soil values up to 370 ppb Au. Rock sampling has confirmed weak Au mineralization up to 909 ppb gold in vuggy quartz veins outcropping in the anomalous soil zone. Evidence suggests the high grade glacially transported float boulders, located 500 m north of the soil grid, probably originated from the same structure responsible for the soil anomalies, albeit subice, possibly where the glacier has bisected the trend of anomalous soil samples.

The 115 degree linear trend defined by the soil and rock gold anomalies lines up well with high grade gold mineralization in quartz veins cropping out in a creek to the northwest, 600 metres beyond the property boundary. Arc gold anomalies and those on the adjacent property to the west appear to be related to a structure that can be traced over a distance of more than five kilometres.

Throughout the remainder of the property, particularly in the central and southern portions, numerous rock exposures containing weak to moderate gold and copper mineralization are observed. Most often this mineralization is associated with narrow discontinuous locally pyritic quartz/carbonate veins that strike approximately 060. However, due to the small scale and limited extent of most showings, they are not afforded a very high potential on an individual basis. Nevertheless, taken as a whole, the ground underlying the Arc property has been considerably affected by a weak but widely distributed episode of mineralization, a fact that should not be overlooked when assessing the mineral potential of the property.

For the sake of comparison, similarities can be drawn between the Arc property main mineralized structure and the Snip deposit located some 28 kilometres due west. In both cases mineralization is proximal to a mid-Jurassic aged porphyritic intrusive, and in both cases mineralization is controlled by an elongate ESE oriented structure.

Further target definition utilizing soil geochem, I.P. and blast trenching is recommended prior to drill testing.

2.0 INTRODUCTION

2.1 GENERAL REMARKS

The Arc 10, 11, and 12 claims were optioned by Noranda Exploration Company, Limited from the Hunter Joint Venture in January, 1990.

Quartz vein float boulders containing high grade gold mineralization were discovered in 1989 in creeks draining the west side of the claim block as well as higher up on the property in the out wash of a glacier.

A field program was carried out during 1990, consisting of geological mapping, prospecting, geochemical sampling and geophysics, in an attempt to locate the source of the anomalous float and to evaluate the mineral potential of the claims.

A total of 97 man days were spent by Noranda personnel performing exploration on the Arc claims in 1990. The project is a joint venture of Noranda Exploration and Hemlo Gold Mines.

2.2 LOCATION AND ACCESS

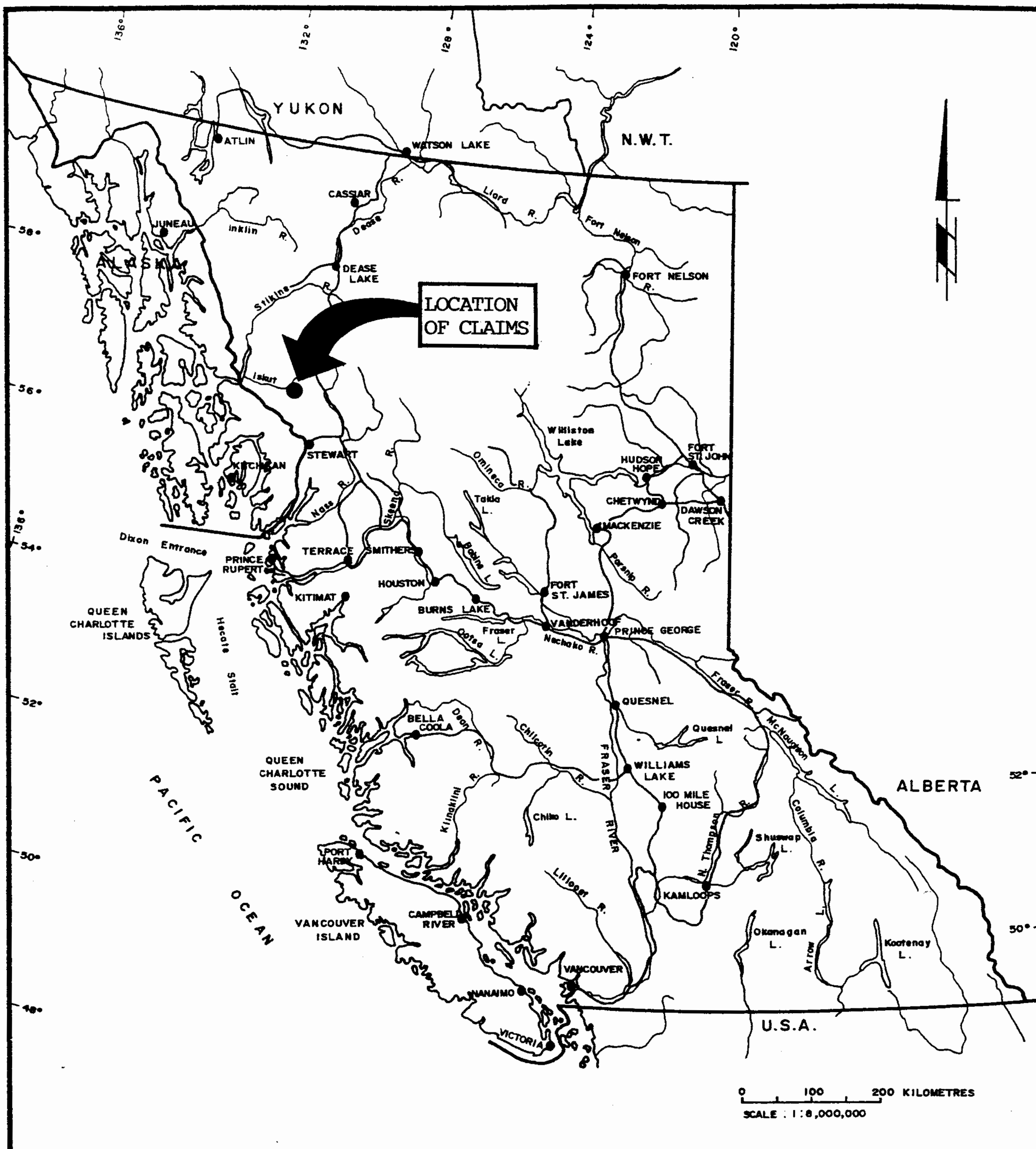
The Arc property is located approximately 90 km north of the town of Stewart, B.C. and 50 km southwest of the Stewart-Cassiar Highway, #37 (fig 1). The proposed route of the Iskut valley road lies 3 kilometres to the northwest.

The claims lie within the Liard Mining Division and are centred at 56' 40' north latitude and 130' 38' west longitude on NTS map sheet 104 B/10E.

Access to the property was provided by helicopters chartered from Vancouver Island Helicopter's base at Bob Quinn Lake 50 km to the northeast.

2.3 PHYSIOGRAPHY & VEGETATION

The property lies within the rugged Coast Mountains, which are characterized by steep slopes and U-shaped valleys typical of a glaciated terrain. About 80% of the property can be easily traversed, whereas the remainder is either too steep or covered



REVISED	
	ARC PROPERTY
	CLAIM LOCATION MAP
PROJ.No. 294	SURVEY BY: ______ DATE: Nov. 1990
N.T.S. 104B10	DRAWN BY: S.K.B. SCALE: 1:8,000,000
DWG. No. FIG. 1	NORANDA EXPLORATION OFFICE: PRINCE GEORGE, B.C.

VANCAL 11927

by glacial ice. The property covers a prominent north-south oriented ridge between two elongate valleys. Elevation varies from 900 metres at the north end to over 1800 metres in the central and southern portions.

Most of the property either lies above treeline or in areas recently affected by glaciation, thus vegetation is sparse, consisting of scattered scrub grasses, alpine heather, and small stands of alpine fir at lower elevations.

2.4 CLAIM DATA

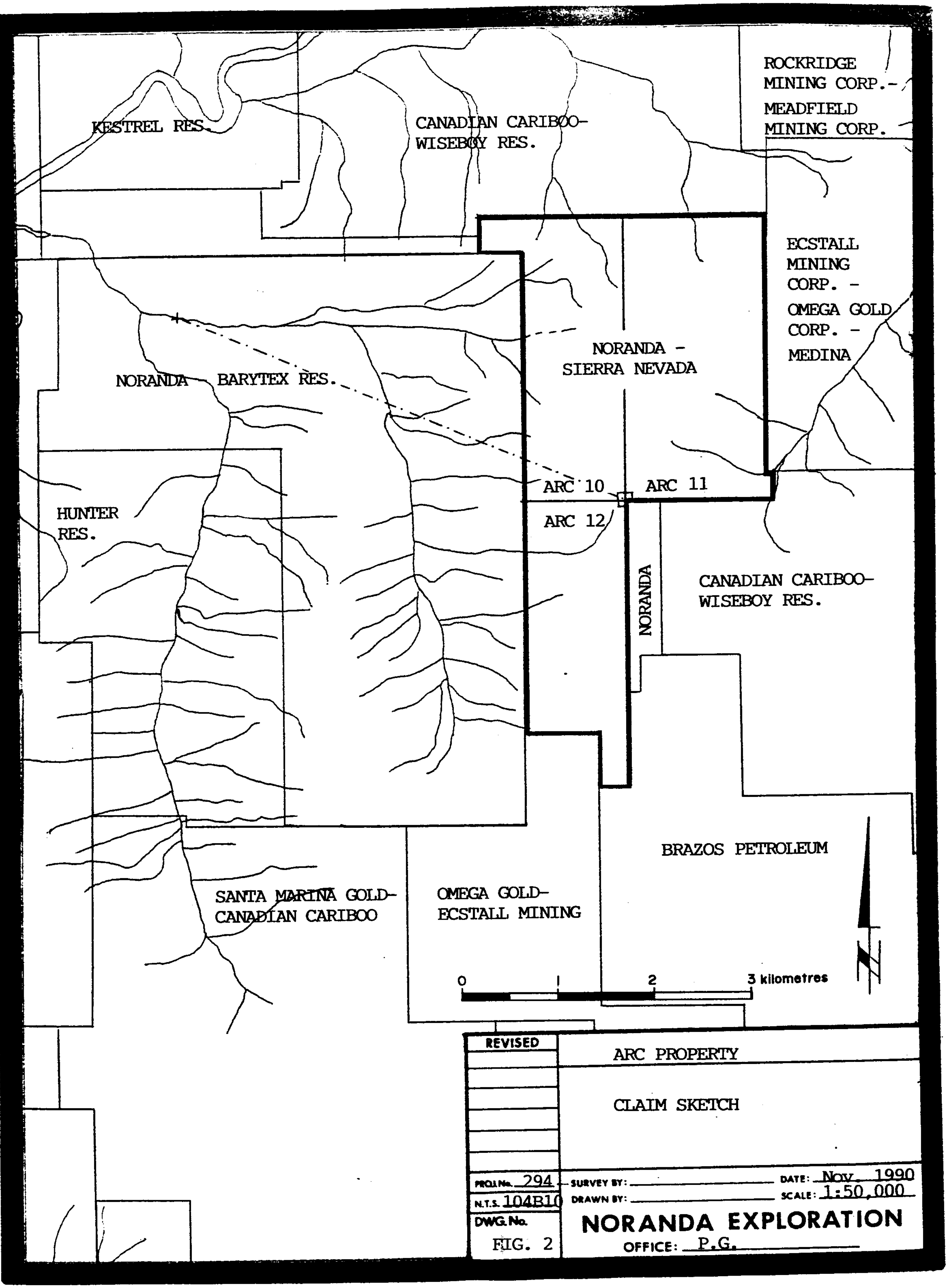
The property is comprised of the following claims which are shown in fig. 2. Upon acceptance of this report, they will be in good standing until the indicated date.

Name	Units	Record #	Record Date	Expiry Date
Arc 10	18	5615	Jan. 4, 1989	1993
Arc 11	18	5616	Jan. 4, 1989	1993
Arc 12	18	5617	Jan. 4, 1989	1993

The location of the LCP's for the Arc 10, 11, and 12 claims is by witness post, which is located on the south bank of Lehto Creek, exactly 5.0 km away at a bearing of 272.5°.

2.5 PREVIOUS WORK

There is no recorded work for the area of the Arc claims. However, as it is located in the Iskut belt of mineralization, the region has seen considerable exploration activity in recent years. A prospector's campsite estimated to be at least 10 years old was observed near the centre of the Arc 12 claim. Active properties nearby include Eskay Creek 10 km to the east, and Snippaker Creek and Johnny Mountain 30 km to the west.



REVISED	ARC PROPERTY
	CLAIM SKETCH
PROJ. No. 294	SURVEY BY: DATE: Nov. 1990
N.T.S. 104B10	DRAWN BY: SCALE: 1:50,000
DWG. No. FIG. 2	NORANDA EXPLORATION OFFICE: P.G.

3.0 REGIONAL GEOLOGY

The Arc Property is located near the centre of the Snippaker Creek Map sheet 104 B/10.

The area lies near the western edge of the Intermontane Belt of the Canadian Cordillera, where it parallels the Coast Plutonic Complex. Recent work by both the Geological Survey of Canada and the Geological Services Branch of British Columbia provides a framework of the complex geology of this rugged area. The area includes four, unconformity bounded, tectonostratigraphic assemblages: 1) Palaeozoic Stikine Assemblage; 2) Triassic-Jurassic volcano-plutonic complexes of Stikinia; 3) Middle and Upper Jurassic Bowser overlap assemblage; and 4) Tertiary Coast Plutonic Complex.(Anderson, 1989) This section of the Intermontane Belt forms the west limb of the "Stikine Arch," a roughly horseshoe shaped area of Upper Triassic to Jurassic stratigraphy that hosts most of the significant mineral deposits in northwest B.C. and the Toodoggone gold camp.

The Palaeozoic Stikine Assemblage contains the oldest stratigraphy and is divisible into three distinct, volcanic-carbonate units: Early Devonian limestones and intermediate to felsic volcanics; Mississippian bioclastic limestones; and Permian fragmental volcanics and limestone. These rocks are metamorphosed and highly deformed.

The Triassic-Jurassic volcano-plutonic complex (Stewart Complex) consists of both the Triassic Stuhini Group and the Jurassic Hazleton Group. The Stuhini Group consists of limestone and mafic volcanics deposited in an island arc environment. The Stuhini hosts the Snip and Johnny Mountain structural gold deposits. Hazleton rocks consist of andesitic breccias/lavas, felsic tuffs/breccias, and maroon-green volcanic sediments (siltstone, greywacke, conglomerate, and black shale) deposited in an island arc environment. Black shales (Eskay Creek facies) overlying felsic volcanics (Mt. Dilworth Formation) host the Eskay Creek gold deposits. Jurassic Hazelton Group volcanics correlate with Geology Map Units 1 and 2 on the Arc property geology maps.

Sub-volcanic intrusions accompany most of the volcanic centres of the Mesozoic island arcs and range from Alaskan type ultramafics to felsic dykes. Distinctive porphyritic dykes link Upper Triassic and Lower Jurassic volcanics with their plutonic equivalents. Many of the significant mineral deposits in the Stewart Complex are found to have a close association with volcanic centres. These intrusions correlate with Geology Map Unit 4 on the Arc property geology maps.

The Middle and Upper Jurassic Bowser Overlap Assemblage predominantly consists of turbidite black clastics deposited in the Bowser Basin which formed as a result of uplift to the west due to emplacement of the Coast Range Intrusives.

The Tertiary Coast Plutonic Complex consists of post-tectonic, felsic plutons. Eastward younging of strata and local zones of high strain attest to intrusion and uplift of the complex.

Locally, Tertiary to Recent subaerial volcanics cover low lying areas.

4.0 PROPERTY GEOLOGY

4.1 MAP UNIT 1

Underlying the central portion of the Arc claims are green-grey andesitic volcanics, consisting of fine to coarse lapilli tuffs, crystal tuffs, and massive andesite flows, as well as minor local interbedded sediments. Bedded structures within the volcanics indicate a general northwest strike and a moderate northeast dip.

This volcanic package is given a Permian age by the G.S.C. while the B.C.G.S. date them as Lower Jurassic and assign them to the pyroclastic-epiclastic sequence of the Betty Creek Formation.

Fragments in the tuffaceous units range from ash sized to blocks as coarse as 30 cm but the average is about 2.0 cm. Texture varies from gritty and angular in the finer fraction to subrounded in the coarser fraction, which locally has the appearance of bombs. Composition of fragments is andesitic with little variation throughout the sequence, though an exception to this is the occurrence at several localities of a lapilli tuff composed of angular pink felsic volcanic fragments. In all cases however, the matrix is andesitic in composition and commonly has a gritty appearance. Both matrix and fragments are commonly porphyritic, and contain up to 20% phenocrysts of 1-3 millimetre subrounded plagioclase feldspar and acicular hornblende.

Crystal tuff units are generally richer in crystalline material than lithic tuffs and are distinguished by a lack of discernable fragments. It is not uncommon for one tuff variety to grade into another.

Andesite flows are typically massive and textureless, with a weakly sheared or smeared appearance. If the flows are porphyritic, containing feldspar or hornblende phenocrysts, it may be difficult to distinguish them from the crystal tuffs.

Immediately northeast of the claims are pillowed andesites, which suggests that andesitic rocks on the Arc property are subaqueous in origin. West of the property several small exposures of pebble conglomerate and sandstone within the andesites support this idea.

Andesitic volcanics and related sediments on the Arc claims have undergone weak regional propylitic alteration which gives a characteristic dark green color due to the presence of chlorite in altered mafic minerals. In outcrop, andesitic rocks weather a pale green to whitish color.

4.2 MAP UNIT 2

A sedimentary package consisting of phyllites with lesser sandstone and shales outcrop at the north end of the claim block. Black shales seen in several of the drainages in this area are commonly graphitic as well as moderately sheared and deformed. This is due to minor fault splays running off the main Lehto fault which strikes in an east-west direction through this area. Phyllitic rocks belonging to this package have an uncertain origin, though a locally high feldspar crystal content seen in many exposures suggests the possibility of a pyroclastic origin. Several outcrops in the area indicate sediments strike north to northeast and dip steeply towards the east.

4.3 MAP UNIT 3

Hornblende feldspar porphyry dikes are observed locally throughout the property and are possibly similar in age to Lehto porphyry intrusive, but are different enough in appearance to constitute a separate mappable unit. Porphyry dikes are narrow, ranging between one and three metres in width, and are tabular in form. They strike approximately northeast and intrude into both andesite volcanics and Lehto intrusive rocks.

Porphyry dikes contain up to 20% phenocrysts of rounded plagioclase feldspar which range up to 4.0 millimetres in length and euhedral needle shaped hornblende. The matrix is felsic in composition, aphanitic, and pinkish grey to pinkish green in colour. Dike rocks are generally unaltered, except for weak chloritic alteration of the mafic component, and for this reason it is easily distinguished in the field. It weathers to a pinkish white in colour. Porphyritic dikes do not appear to be associated with any obvious economic mineralization.

4.4 MAP UNIT 4

At the south end of the claim block the Lehto porphyry, a syn to post volcanic intrusion of Lower Jurassic age, cuts diagonally through andesitic volcanics. Lehto porphyry and other similarly aged intrusives are accorded with high mineralizing potential in the Iskut Area, and are spacially associated with many known mineral deposits and showings. This kilometre-wide northeast trending intrusive, is K-feldspar-plagioclase-hornblende porphyritic to phaneritic in texture, is locally sheared, and ranges in composition from granodiorite to syenite.

Intrusive rocks weather to a pinkish white color except where they have been sheared and contain chlorite, in which case they have a greenish cast. Near the center of the intrusive body a chloritic shear zone that measures 50 metres wide by several hundred metres long and trends 080, contains numerous narrow pyrite seams and is locally silicified.

A few narrow basalt dykes of Pleistocene to recent age are observed on the west side of the Arc 11 claim that have intruded into andesites and strike east-west.

5.0 GEOCHEMISTRY

During the 1990 field season 147 rock, 16 silt, and 308 soil samples were collected on the Arc property. Samples collected off the property are included for the purposes of discussion only and have not been used for assessment credit.

Initial reconnaissance prospecting and sampling concentrated on locating the source of mineralized float boulders up to 30 centimetres in diameter, found in the outwash moraine below the west flowing glacier in the southern portion of the Arc 10 claim.

A thorough inspection of rocks exposed above and below the glacier suggests that the mineralized structure sought is buried under ice. Work conducted southwest of the glacier identified anomalous gold in quartz veins within a linear surface depression trending approximately 115 degrees, that is aligned with known gold mineralization on the adjoining property to the west.

5.1 SOILS

Following the discovery of gold bearing rocks southwest of the glacier, a survey grid was established which covered the trend of the anomalous zone, east from the property boundary for a distance of 1.2 kilometres. Soil samples were collected at 20 metre intervals on 100 metre spaced lines, from the "B" horizon at a depth of 20 to 50 centimetres. In addition, two soil lines with sample stations every 50 metres were run on contours both above and below the anomalous zone.

Results of the soil survey indicate numerous weak to moderate gold anomalies over an 800 metre strike length that parallel the 115 degree trend of the anomalous outcrops and a linear gulley. Gold values range up to 370 ppb. A break in the trend near the center of the grid appears to be due to the encroachment of glacier ice. This facilitates a possible source area for the mineralized float which has been discovered in outwash at the foot of this north flowing glacier.

Moderate to high base metal anomalies were also detected on the grid in several samples, which form a small cluster south of the gold trend between lines 13,400 E and 13,700 E. Values for Cu, Pb, and Zn in 9 anomalous samples range up to 862, 1268, and 3092 ppm respectively. No base metal mineralization was observed outcropping in this area.

5.2 ROCKS

Geochemical prospecting and rock sampling on other parts of the claim block identified several small copper and gold showings. In most cases gold occurrences are associated with narrow, highly discontinuous vuggy quartz-carbonate veins locally containing disseminated pyrite, which strike 060 and dip variably.

Rock samples collected in the vicinity of the grid returned values up to 909 ppb gold indicating weak gold mineralization. Anomalous samples collected from within the linear gulley were from locally pyritic vuggy quartz veins in which the host andesites are strongly fractured, pervasively clay altered, and locally carbonate flooded.

Sample #129636, a grab sample from some pyritic quartz veins, was collected from a creek drainage about one kilometre south of the soil grid and assayed 0.067 opt gold. Another sample at this same exposure ran 2910 ppb gold and 4787 ppm copper. One kilometre northwest of the grid, sample #105423, a piece of andesite float containing quartz veins, contained 4520 ppb gold. Several other samples collected south of the grid ran up to up to 1080 ppb gold.

In the south central part of the Arc 12 claim numerous pieces of hornfelsed volcanic float containing pyrite an chalcopyrite were discovered within a 50 metre by 50 metre area in the moraine of a south flowing glacier and were sampled. The following table lists the significant geochemical results:

Sample #	Cu (ppm)	Zn (ppm)	Ag (ppm)	Au (ppb)
105406	5,341	144	1.4	28
105407	21,943	970	3.3	91
105408	40,635	9,162	11.8	22

Intensive prospecting in this area of abundant outcrop failed to locate the source of the float and is thus assumed to be sub-ice.

Approximately 1.5 kilometres north of the grid within a west draining gulley, several zones containing pyrite and chalcopyrite mineralization in narrow quartz/carbonate veins are exposed at 50 metre intervals over a distance of 200 metres in the creek. The veins strike 060, dip vertically, and range between 1 and 5 centimetres in width over a strike length of 1 to 3 metres. The following table lists the results of several grab samples:

Sample #	Cu (ppm)	Comment
109172	27,528	4 cm qz vein w/ py, cpy
109173	11,534	qz + cal veins w/ coarse cpy
109175	11,749	4 cm siderite vein w/ dissem cpy
108076	>99,999	4 cm piece of massive cpy float

Within the wedge of ground lying outside the claims between the LCP and the valley glacier to the east, numerous narrow, discontinuous quartz/carbonate veins were observed which contain local weak gold and copper mineralization. At the foot of the large valley glacier which flows past the eastern boundary of the Arc claims, but which originates from much farther south, two rounded mineralized float boulders containing massive pyrite, pyrrhotite, and chalcopyrite were discovered, that ran 32,400 ppb gold and 49489 ppm copper. However, based upon their mineralogy, which suggests a skarn origin, it is unlikely that these boulders originated from within the Arc claims, or at least not in the northern part.

The 115 degree trend defined by the soil and rock gold anomalies lines up well with high grade gold mineralization in quartz veins cropping out in a creek to the northwest, 600 metres beyond the property boundary. Arc gold anomalies and those to the west just described appear to be related to a structure that can be traced over a distance of more than five kilometres.

5.3 STREAM SEDIMENTS

Several silt samples were collected from drainages at the north end of the claim block, which is predominantly underlain by fine grained sediments including black shales, which weather to a rusty orange colour in places. The best geochemical results for these silts are 262 ppm arsenic, 38 ppm molybdenum, and 19 ppb gold. Prospecting and rock sampling was unsuccessful in this area.

6.0 GEOPHYSICS

During mid-September, 1990, ground geophysical surveys consisting of Total Field Magnetics and Horizontal Loop Electromagnetics were performed on the Arc property. The objectives of the ground survey were to help map the local geology and structure of the property and possibly delineate potential areas of possible economic mineralization.

All ground surveys were carried out by Noranda personnel. A total of 6.8 km of magnetics was done on the Arc grid.

6.1 INSTRUMENTATION

MAGNETICS - The magnetics survey utilized EDA Omni4 magnetometers with readings corrected for diurnal drift by the use of a recording magnetic base station. The EDA system records the Total Magnetic Field with an accuracy of within 1 nT. Readings were taken at 12.5 m intervals along the survey lines.

6.2 DISCUSSION OF RESULTS

The 1:5,000 contour magnetic plan map shows two rock units of contrasting magnetic susceptibility within the grid area. The rock unit with the high susceptibility, possibly volcanic, can be considered to lie within the 56800 nT contour. Narrow and possibly shallow dyke-like features are found within this rock unit. The low susceptibility unit found elsewhere but noticeably at the SW may be mapping a sedimentary rock package. Several E-W interpreted magnetic breaks are shown as well as a NW-SE break which may possibly extend almost to the grid's SE corner.

7.0 CONCLUSIONS

In 1989 high-grade gold mineralized float was discovered in moraine at the toe of a glacier located on the southern half of the Arc 10 claim. Resampling of pyrite rich quartz float boulders from the moraine assayed up to 28.56 grams/tonne gold (0.833 opt).

Results of the 1990 field program have identified a possible source area for this mineralized float. Grid soil sampling has outlined a linear geochemical gold anomaly trending 115 degrees that is 800 metres in length and borders the south edge of the glacier from which the anomalous float is believed to have been transported by. The fact that the upper part of this same glacier cuts across the projection of the anomalous soil zone strongly suggests that the anomalous float occurring in the moraines at the toe end of the glacier has originated from this zone under the ice.

Soil samples range up to 370 ppb gold, while rock samples collected in the vicinity of the soil grid have returned values of up to 909 ppb gold.

Throughout the remainder of the property, particularly in the central and southern portions, numerous rock exposures containing weak to moderate gold and copper mineralization are observed. Most often this mineralization is associated with narrow discontinuous locally pyritic quartz/carbonate veins that strike approximately 060. However, due to the small scale and limited extent of most showings, they are not afforded a very high potential on an individual basis. Nevertheless, taken as a whole, the ground underlying the Arc property has been considerably affected by a widely distributed episode of mineralization, a fact that should not be overlooked when assessing the mineral potential of the property.

Similarities are apparent between the Arc property and the Snip deposit located some 28 kilometres due west. In both cases mineralization is proximal to a mid-Jurassic aged porphyritic intrusive, and in both cases mineralization is controlled by an elongate ESE oriented structure. With this in mind further work is warranted on the Arc property.

Ground magnetic surveys have defined distinct rock units within the survey grids. Ground HLEM surveys have not been effective in outlining potential mineralized zones within bedrock and a program of I.P. surveying may be more effective for this purpose. Geological and geophysical results should be compiled to help assess the potential of the property and priorities established from this analysis.

8.0 RECOMMENDATIONS

Based upon the positive results of the 1990 field program, further work is recommended for the Arc claims. This work should include extending the geochemical soil grid further to the south-east along the trend of the mineralized structure which passes through the present grid area. Consideration should also be given to IP and HLEM geophysical surveys over the grid area to define possible anomalies at depth. A short drill program could follow positive definition of a sufficiently promising target.

9.0 BIBLIOGRAPHY

Alldrick, D.J., Britton, J.M., Webster, I.C.L., and Russell, C.W.P. 1989: Geology and Mineral Deposits of the Unuk area, BCMEMPR, Open File Map 1989-10.

Geology, More and Forrest Kerr Creeks, Northwestern British Columbia. Energy, Mines and Resources Canada, Open File 2094.

STATEMENT OF COSTS

CLAIMS: ARC 10, ARC 11, ARC 12
DATES: June 1 to September 15, 1990
TYPE OF REPORT: GEOLOGICAL, GEOCHEMICAL AND GEOPHYSICAL

1.	WAGES:		
	Rate per day: $151.90		
	No. of days: 103		
	Dates: June 1 to Sept. 15, 1990		
	TOTAL:		$ 15,645.70
2.	FOOD, ACCOMMODATION, AND SUPPLIES:		
	Rate per day: $57.39		
	No. of days: 103		
	Dates: June 1 to Sept. 15, 1990		
	TOTAL:		$ 5,911.17
3.	TRANSPORTATION:		
	Rate per day: $122.19		
	No. of days: 103		
	Dates: June 1 to Sept. 15, 1990		
	TOTAL:		$ 12,585.57
4.	ANALYSES:		
	308 soils for 28 element ICP & Au	@ $11.46 ea	$ 3,529.68
	16 silts "	@ $11.46 ea	$ 183.36
	147 rocks "	@ $15.37 ea	$ 2,259.79
	TOTAL:		$ 5,972.43
5.	OTHER COSTS:		
	Instrument Rental		$ 411.95
	Base Map		$ 420.00
	Shipping, Expediting		$ 998.60
6.	COST OF REPORT PREPARATION:		
	Author		$ 1,000.00
	Drafting		$ 200.00
	Typing		$ 50.00
	Data Processing		$ 526.57
	TOTAL:		$ 1,776.57
	TOTAL COSTS:		**$ 43,721.99**

APPENDIX II

STATEMENT OF QUALIFICATIONS

STATEMENT OF QUALIFICATIONS

I, Eric C. Grill, of 1928 West 35th Avenue, Vancouver, in the Province of British Columbia, do hereby certify that:

1. I am a geologist in the employ of Noranda Exploration Company, Limited (no personal liability).

2. I graduated in 1986 from the University of British Columbia with a Bachelor of Science degree (honours) in Geology.

3. My primary employment since 1986 has been in the field of mineral exploration.

4. This report is based on work supervised and carried out by the author.

5. I have no interest in the property described herein, nor in the securities of any company associated with the property, nor do I expect to acquire any such interest.

Eric C. Grill,
Geologist

APPENDIX I

STATEMENT OF QUALIFICATIONS

I, Michael J. Savell of the City of Prince George, Province of British Columbia, do certify that:

1. I am a geologist residing at 3507 Rosia Road, Prince George, British Columbia.

2. I am a graduate of Dalhousie University with a Bachelor of Science (Honors) in Geology.

3. I am a member in good standing of the Geological Association of Canada, Canadian Institute of Mining, Prospector's and Developer's Association and the B.C.-Yukon Chamber of Mines.

4. I presently hold the position of Project Geologist with Noranda Exploration Company, Limited and have been in their employ since 1980.

Michael J. Savell
Geologist
Noranda Exploration Company, Limited
(No Personal Liability)

STATEMENT OF QUALIFICATIONS

I, Ted Wong, of the City of Vancouver, Province of British Columbia, hereby certify that:

1. I am a geophysicist residing in Burnaby, B.C.

2. I have graduated from the University of British Columbia in 1983 with a B.Sc. in Geophysics.

3. I am a professional geophysicist, registered with the Association of Professional Engineers, Geologists and Geophysicists of Alberta. I am a licensed professional geophysicist, registered with the Association of Professional Engineers, Geologists and Geophysicists of the Northwest Territories.

4. I have practised by profession on a continual basis since 1984.

5. I have been employed by Noranda Exploration Company, Limited since September, 1989.

Ted Wong

Ted T. Wong, P. Geoph.

APPENDIX III

ANALYTICAL PROCEDURE

ANALYTICAL PROCEDURE

Soils, Silts, Rocks

The samples are dried and screened to -80 mesh. Rock samples are pulverized to -120 mesh. A 0.2 gram sample is digested with 3 ml of $HClO_4/HNO_3$ (4 to 1 ratio) at 203° C for four hours, and diluted to 11 ml with water. A Leeman PS 3000 is used to determine elemental contents by I.C.P. Note that the major oxide elements and Ba, Be, Ce, Ga, La and Li are rarely dissolved completely from geological materials with this acid dissolution method.

For Au analyses, a 10.0 gram sample of -80 mesh material is digested with aqua regia and determination made by A.A.

Heavy Mineral Concentrates

The entire concentrate is digested in aqua regia solution, and elemental concentrations of Au, Ag, Cu, Pb, and Zn are determined by A.A.

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

Barytex Arc (EG)

DATE RECEIVED: SEP 11 199

DATE REPORT MAILED: Sept 19/90

ASSAY CERTIFICATE

Noranda Exploration Co. Ltd. PROJECT 9009-024 295 FILE # 90-4130R

SAMPLE#	AU** oz/t
A 106972	.833

- SAMPLE TYPE: ROCK AU** BY FIRE ASSAY FROM 1 A.T.

SIGNED BY. D.Toye. D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

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RECEIVED
SEP 24 1990

20 Sep PG

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

DATE RECEIVED: SEP 10 1990
DATE REPORT MAILED: Sep. 15/

ASSAY CERTIFICATE

Noranda Exploration Co. Ltd. PROJECT 9009-021 FILE # 90-4150R

SAMPLE#	Au** oz/t
129636	.067

AU** BY FIRE ASSAY FROM 1 A.T.
- SAMPLE TYPE: ROCK

SIGNED BY .... D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

RECEIVED
SEP 18 1990

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17 Sep PG

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

GEOCHEMICAL ANALYSIS CERTIFICATE

RDN (ME)

Noranda Exploration Co. Ltd. PROJECT 9009-027-296 File # 90-4133 Page 1

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

Copy to Mike x 2

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
106964	2	8	9	58	.4	2	18	923	9.52	78	5	ND	1	13	.2	4	5	3	.50	.023	6	2	.98	51	.01	2	1.90	.01	.13	2	38
106965	2	6	2	13	.3	2	8	1966	2.82	6	5	ND	1	52	.4	2	2	1	4.03	.014	2	1	.14	170	.01	3	.24	.01	.08	2	3
ARC 106966	2	14	2	7	.4	3	13	135	6.27	38	5	ND	1	19	.2	3	6	1	.08	.027	5	4	.06	16	.01	2	.39	.02	.14	2	183
106967	1	235	5	52	1.2	3	40	818	11.14	488	5	ND	1	11	.2	2	2	40	.63	.024	3	1	.75	41	.01	2	1.40	.01	.09	1	107

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: P1 ROCK P2 SILT AU* ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPLE.

DATE RECEIVED: SEP 4 1990 DATE REPORT MAILED: Sept 10/90. SIGNED BY C. Leong .D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

RECEIVED SEP 13 1990

✓ ASSAY RECOMMENDED

Assay gold in progress.

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER B.C.

GEOCHEMICAL ANALYSIS CERTIFICATE

Back (EG)

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Noranda Exploration Co. Ltd. PROJECT 9008-011 2949 File # 90-3008

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
104775	6	15	33	2	3.0	5	1	66	4.86	812	5	ND	1	8	.2	19	2	1	.02	.009	2	1	.02	52	.01	4	.16	.02	.09	1	17
105451	1	6	7	18	.1	1	1	1872	1.25	2	5	ND	1	157	.7	2	2	1	5.56	.019	4	4	.14	58	.01	2	.39	.02	.07	2	4
105452	3	6	2	1	.1	7	19	115	4.40	15	6	ND	1	2	.4	2	2	1	.01	.006	4	1	.01	76	.01	4	.14	.01	.12	1	118
105461	21	124	66	23	.7	1	3	71	6.36	235	5	ND	1	3	.2	2	4	4	.04	.042	15	1	.05	51	.01	3	.41	.01	.25	2	91
105462	2	915	9	13	.4	9	22	225	10.30	21	6	ND	1	4	.2	3	2	85	.24	.063	3	27	1.21	22	.12	5	1.98	.01	.09	1	79

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 30 1990 **DATE REPORT MAILED:** Aug 3/90. **SIGNED BY** C. Leong ......D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

✓ ASSAY RECOMMENDED

RECEIVED
AUG - 8 1990

7 Aug '90

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

GEOCHEMICAL ANALYSIS CERTIFICATE

Arc (MS)

Noranda Exploration Co. Ltd. PROJECT 9009-021 File # 90-4150

Copy to Mike x2

P.O. Box 2380, 1050 Davie, 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
129632	1	61	6	40	.2	12	15	1466	4.48	15	5	ND	1	68	.2	2	2	46	4.09	.052	6	19	1.40	101	.01	2	1.39	.03	.17	1	2
129633	5	117	18	67	.8	30	34	561	6.76	19	5	ND	2	10	.5	3	2	100	1.80	.062	4	30	2.01	33	.41	2	2.73	.04	.01	1	5
129634	19	134	4	42	.1	4	6	318	4.73	3	5	ND	1	7	.2	2	2	6	.22	.037	2	3	1.22	48	.01	2	1.42	.04	.10	1	5
129635	3	361	2	3	.5	5	6	81	10.90	320	8	ND	6	3	.2	2	5	7	.03	.069	5	2	.02	53	.01	2	.35	.01	.24	1	62
129636	4	298	10	4	1.5	1	3	97	7.01	349	5	3	3	6	.2	2	12	4	.10	.020	5	1	.05	36	.01	2	.33	.01	.20	1	2646
129638	1	9	4	105	.3	1	3	4192	5.06	4	8	ND	1	156	.4	2	2	5	7.18	.023	6	1	2.09	64	.01	2	2.57	.01	.12	1	5
129639	2	53	2	13	.1	8	4	467	1.67	7	5	ND	1	72	.2	2	2	1	.61	.036	7	6	.02	1607	.01	2	.29	.04	.19	1	2
129876	1	8	2	29	.1	1	3	162	3.12	6	5	ND	2	13	.2	2	2	4	.04	.024	6	1	.78	74	.01	2	1.10	.02	.21	1	8
129877	1	39	2	10	.2	1	3	502	2.73	46	5	ND	2	19	.2	2	2	1	.75	.046	4	1	.37	67	.01	2	.79	.02	.26	1	23
129680	2	74	4	8	1.0	7	4	136	7.23	125	5	ND	1	6	.2	2	5	1	.12	.013	2	7	.05	139	.01	2	.17	.01	.05	1	123
129681	2	25	2	2	.3	5	9	106	6.78	93	5	ND	1	4	.2	2	4	1	.04	.029	2	3	.02	55	.01	4	.30	.01	.18	1	639
129682	1	2471	2	27	.3	2	15	971	5.52	2	5	ND	1	9	.2	2	5	2	1.18	.032	4	1	.34	65	.01	2	.84	.03	.14	1	14
129683	1	12	3	11	.1	1	2	355	1.38	2	5	ND	1	3	.2	2	2	1	.26	.011	13	1	.15	52	.01	2	.52	.02	.22	2	3
129684	2	11	3	6	.1	6	2	236	1.51	2	5	ND	1	3	.2	2	2	1	.06	.005	2	6	.05	29	.01	2	.23	.03	.10	1	3
129686	1	20	6	35	.5	1	38	2440	6.85	64	7	ND	1	90	.3	2	6	2	4.57	.044	3	1	.88	14	.01	4	1.24	.01	.09	1	99
129687	2	44	2	6	.4	2	24	439	16.20	194	5	ND	1	20	.6	2	5	2	.06	.082	2	1	.03	24	.01	2	.38	.01	.11	1	909
129688	2	13	2	2	.5	5	8	52	2.95	91	5	ND	1	2	.2	2	6	1	.02	.012	2	4	.01	18	.01	2	.24	.01	.13	1	396
129689	1	8	2	44	.3	3	19	3100	8.10	27	6	ND	1	82	1.1	2	2	5	10.16	.014	2	1	3.10	28	.01	2	.16	.01	.10	1	52
129690	1	12	5	5	.5	1	25	142	4.58	24	5	ND	1	4	.2	2	10	1	.09	.014	2	1	.02	38	.01	2	.23	.04	.09	1	441
STANDARD C/AU-R	18	57	40	131	7.1	71	31	1048	3.96	40	19	7	39	53	19.9	14	19	57	.52	.095	38	58	.90	181	.09	35	1.89	.06	.14	11	520

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: SEP 4 1990 DATE REPORT MAILED: Sept 10/90. SIGNED BY C. Leong D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

RECEIVED
SEP 13 1990

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 %	K %	La ppm	Li ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P %	Pb ppm	Sr ppm	Ti %	V ppm	Zn ppm	9007-023 Pg. 6 of 6
236	108080	2100	0.2	1.94	31	103	0.3	2	0.01	0.2	14	3	71	6	2.26	0.90	4	2	0.11	79	1	0.08	4	0.03	2	10	0.04	10	6	

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

GEOCHEMICAL ANALYSIS CERTIFICATE Arc (EG)

Noranda Exploration Co. Ltd. PROJECT 9009-060 294 File # 90-4675

P.O. Box 2380, 1050 Davie, 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
129694	1	8	5	22	.4	3	7	1243	4.64	80	5	ND	1	8	.2	2	4	3	.60	.079	3	2	.83	45	.01	5	1.34	.03	.11	1	550

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

GEOCHEMICAL ANALYSIS CERTIFICATE Barytes (EG)

Noranda Exploration Co. Ltd. PROJECT 9008-040 295 File # 90-3351 Page 1

P.O. Box 2380, 1050 Davie, 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
105338	1	5	4	1	.1	1	3	47	18.95	8	5	ND	1	1	.6	2	2	55	.01	.001	2	1	.01	12	.01	2	.02	.01	.01	35	14
105339	5	33	6	13	.1	7	36	186	6.05	42	5	ND	1	7	.2	2	2	27	.07	.012	2	4	.34	205	.01	2	.57	.01	.09	16	40
105340	2	86	2	6	.1	5	5	231	1.56	2	5	ND	1	3	.6	2	2	3	.04	.012	5	4	.24	148	.01	2	.53	.03	.11	1	7

Noranda Exploration Co. Ltd. PROJECT 9008-090 296 FILE # 90-3777 Page 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	Au* ppb
106959	4	26	56	34	2.3	2	3	144	7.94	90	5	ND	1	11	.2	38	14	2	.06	.030	3	2	.14	40	.01	2	.53	.05	.12	1	65

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

GEOCHEMICAL ANALYSIS CERTIFICATE

Arc (EG)

Noranda Exploration Co. Ltd. PROJECT 9007-066-294 File # 90-2771 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	Au* ppb
80864	4	8	4	9	.1	11	7	584	2.23	11	6	ND	2	11	.2	2	3	2	.52	.031	6	7	.05	52	.01	6	.68	.01	.32	1	18
80865	2	1	2	7	.1	7	2	330	1.92	16	5	ND	1	9	.2	2	2	1	.10	.024	7	6	.04	56	.01	13	.60	.01	.29	1	11
80866	5	167	2	1	.5	7	52	21	12.49	224	5	2	2	1	.2	2	6	1	.01	.001	2	7	.01	14	.01	2	.23	.01	.14	1	3140
80867	3	105	2	8	.1	7	5	284	1.98	36	5	ND	1	5	.2	2	3	1	.42	.034	2	6	.11	21	.01	5	.29	.05	.12	1	280
80868	3	1405	2	25	.1	9	2	139	1.52	2	5	ND	1	773	.2	2	2	3	.03	.009	2	8	.40	815	.01	5	.62	.03	.04	1	10
80869	1	183	2	25	.1	3	3	347	1.69	2	5	ND	1	54	.2	2	2	2	.26	.015	3	4	.45	2006	.01	11	.74	.05	.05	1	12
80870	3	2	2	3	.3	8	1	50	1.45	2	9	ND	2	13	.2	2	2	1	.04	.010	3	8	.03	129	.01	11	.25	.10	.11	1	600
80871	1	74	2	113	.1	13	8	4905	5.83	2	6	ND	2	288	1.0	2	2	61	18.36	.011	3	49	3.49	124	.01	2	2.19	.01	.05	1	6
80872	3	5	2	2	.1	8	1	66	3.09	42	5	ND	1	17	.2	2	2	1	.07	.012	2	7	.03	35	.01	4	.28	.08	.10	1	1360
80873	1	1	2	24	.1	3	29	247	13.01	4	5	ND	2	12	.2	2	2	9	.16	.026	2	1	.57	44	.09	36	1.16	.04	.15	1	2
80875	3	7	3	19	.1	7	3	296	2.49	17	5	ND	2	6	.2	2	2	1	.21	.043	4	6	.34	54	.01	6	.85	.05	.16	1	75
100845	1	7	4	28	.1	6	144	324	15.05	2	5	ND	2	11	.2	2	2	14	.26	.006	3	3	.44	30	.01	2	1.58	.01	.21	9	23
100847	2	14	3	11	.1	8	6	715	1.74	13	5	ND	2	46	.2	2	2	1	2.46	.017	5	7	.19	198	.01	4	.55	.11	.07	1	13
100848	3	11	3	11	.1	9	54	152	5.49	2	5	ND	2	4	.2	2	2	15	.02	.014	2	7	.37	54	.01	3	.84	.01	.12	1	12
100849	2	12	2	25	.1	6	4	264	5.21	40	5	ND	2	26	.2	2	2	4	.05	.057	4	5	.42	72	.01	2	1.01	.14	.05	1	15
103762	2	2271	6	10	.5	8	4	618	2.66	34	5	ND	2	19	.2	2	6	2	1.23	.037	4	7	.39	38	.01	3	.60	.03	.17	1	680
104755	3	6	2	23	.1	10	2	487	7.63	2	5	ND	2	19	.2	2	2	2	1.55	.004	8	9	.13	45	.01	2	.34	.01	.06	1	9
105306	4	13	7	7	.4	10	92	99	8.57	3	6	ND	2	5	.2	2	2	4	.04	.025	2	5	.13	25	.01	2	.53	.03	.10	1	103
105307	2	9	3	55	.1	7	23	353	13.39	9	6	ND	2	6	.4	2	2	16	.03	.030	2	4	1.04	29	.03	75	2.11	.01	.14	1	36
105308	2	3	2	4	.1	9	9	68	19.65	2	6	ND	3	6	.2	2	2	25	.02	.008	2	6	.09	167	.03	2	.29	.02	.06	1	15
109921	1	87	3	13	.1	6	4	4369	3.50	7	5	ND	2	756	.6	2	2	14	20.33	.006	3	4	2.78	20	.01	2	.70	.01	.07	1	6
109925	3	3	4	7	.1	8	121	108	7.09	12	5	ND	4	3	.2	2	2	3	.03	.013	2	5	.21	43	.01	3	.96	.02	.24	2	7
STANDARD C/AU-R	18	57	38	132	7.2	71	31	1037	4.05	38	21	7	39	53	18.5	15	20	57	.52	.097	38	59	.95	181	.09	34	1.96	.06	.14	13	460

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: P1 Rock P2 Silt AU* ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPLE.

DATE RECEIVED: JUL 23 1990 DATE REPORT MAILED: July 27/90 SIGNED BY. C. Leong ...D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

RECEIVED JUL 31 1990

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

GEOCHEMICAL ANALYSIS CERTIFICATE

Arc (F4)

AUG - 8 1990

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Noranda Exploration Co. Ltd. PROJECT 9008-008 1294 File # 90-3007 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	Au* ppb
104768	1	1	7	41	.1	3	2	155	3.65	5	5	ND	3	13	.2	2	2	1	.04	.027	6	3	.78	76	.01	3	1.08	.07	.07	1	12
104769	1	7	8	29	.2	4	2	216	2.86	5	5	ND	3	11	.2	2	2	1	.07	.018	6	4	1.08	66	.01	2	1.22	.06	.13	1	4
104770	4	5	4	22	.1	15	5	1253	5.57	34	5	ND	1	17	.2	2	2	11	1.63	.019	3	9	.56	36	.01	9	.66	.01	.18	1	18
104771	9	4787	35	24	2.6	8	6	161	5.62	168	5	3	1	18	.3	2	5	1	.49	.029	2	5	.19	28	.01	2	.31	.01	.17	2	2910
104772	1	115	6	56	.3	83	49	1365	10.26	2	5	ND	1	78	1.1	2	2	133	2.94	.023	3	157	3.97	15	.01	2	2.65	.04	.19	1	45
104773	2	22	10	36	.2	7	15	821	4.20	145	5	ND	7	27	.2	2	2	28	1.11	.040	7	6	.48	49	.01	2	.99	.02	.17	1	25
104774	18	32	6	51	.2	7	13	253	6.86	32	5	ND	5	6	.2	2	2	12	.05	.016	3	6	.73	150	.01	5	1.86	.01	.22	1	6
105320	6	23	4	3	.3	11	38	350	4.30	5	5	ND	1	8	.2	2	2	2	.64	.019	2	11	.12	47	.01	2	.14	.01	.09	1	840
105321	3	2	2	3	.2	7	23	163	7.91	2	5	ND	1	4	.2	2	4	1	.01	.004	2	6	.01	23	.01	5	.07	.01	.04	2	14
105322	4	690	14	58	.8	12	73	1124	8.94	94	5	ND	3	42	.7	2	6	1	3.33	.008	3	7	.27	17	.01	2	.33	.01	.13	1	99
105323	2	4	6	23	.2	7	28	275	8.88	2	5	ND	2	6	.2	2	3	4	.37	.112	2	6	.58	20	.01	2	1.18	.05	.18	1	31
105325	7	242	12	10	1.4	10	20	349	10.79	141	5	ND	1	7	.2	2	20	16	.06	.007	9	8	.03	232	.01	2	.22	.01	.02	2	810
105326	2	22	10	51	1.2	8	60	989	12.02	59	5	ND	1	8	.4	2	12	20	.51	.012	4	6	.57	16	.01	2	1.75	.01	.08	2	65
105327	4	2	2	4	.1	9	52	274	6.89	2	5	ND	2	4	.2	2	2	3	.06	.063	3	6	.02	17	.01	4	.29	.01	.14	1	6
105328	3	5336	3	31	1.3	10	7	128	3.31	6	5	ND	1	5	.2	2	2	9	.12	.047	2	10	.47	27	.01	5	.68	.04	.04	2	10
105329	3	1	2	8	.1	10	19	1004	2.65	5	5	ND	2	11	.2	2	2	1	2.03	.007	3	6	.82	19	.01	3	.38	.01	.13	1	4
105351	5	15	3	3	.4	7	1	39	3.62	25	5	ND	2	14	.2	2	2	1	.01	.009	5	6	.03	568	.01	2	.28	.01	.17	2	21
105352	3	7	8	10	.1	5	2	64	4.05	10	5	ND	1	4	.2	2	2	1	.03	.028	4	5	.29	102	.01	3	.53	.02	.16	1	12
105353	2	53	23	3	.4	6	8	212	4.85	96	5	ND	4	66	.2	2	2	3	1.86	.051	4	3	.14	50	.01	2	.43	.02	.16	1	78
105354	15	28	15	8	.2	6	3	597	6.07	299	5	ND	2	36	.2	2	2	1	2.01	.011	2	4	.57	23	.01	3	.39	.01	.14	1	56
105355	3	2	3	6	.1	6	1	47	3.01	17	5	ND	1	5	.2	2	2	1	.01	.005	7	5	.10	35	.01	2	.46	.03	.15	2	18
105356	4	380	23	8	1.2	4	2	56	9.61	312	5	ND	1	7	.2	2	19	3	.02	.024	6	4	.03	33	.01	6	.69	.01	.19	1	260
105357	5	18	17	2	.5	8	2	40	2.08	48	5	ND	1	13	.2	5	2	2	.02	.020	6	6	.02	24	.01	5	.26	.01	.13	2	9
105358	4	2	2	3	.3	9	2	52	.99	9	6	ND	1	6	.2	2	3	1	.01	.005	7	7	.01	22	.01	4	.19	.01	.14	2	700
105365	2	2	4	46	.3	5	5	495	3.26	5	5	ND	1	5	.2	2	2	1	.08	.038	3	4	.58	19	.01	2	1.05	.07	.10	2	11
105366	2	60	4	38	.1	4	3	1079	2.93	2	5	ND	1	44	.2	2	2	1	4.74	.028	10	3	.66	452	.01	2	.60	.01	.16	1	8
105368	6	15	9	7	.5	5	25	109	14.65	17	7	ND	2	5	.2	2	8	1	.17	.071	2	5	.19	9	.01	3	.55	.03	.19	1	25
105401	5	984	2	6	.3	12	3	706	1.53	3	5	ND	1	3	.2	2	2	3	.19	.025	4	7	.03	49	.01	3	.21	.01	.10	2	780
105402	3	4	2	4	.2	9	59	202	6.61	3	5	ND	3	6	.2	2	2	1	.29	.016	2	8	.10	17	.01	2	.29	.03	.11	1	1
105403	4	5	2	1	.2	11	10	25	2.80	3	5	ND	1	2	.2	2	2	1	.01	.002	6	6	.01	40	.01	5	.20	.03	.13	1	10
105404	5	717	3	3	.2	13	1	114	.46	2	5	ND	1	5	.2	2	2	1	.24	.003	2	12	.01	45	.01	2	.04	.01	.03	2	3
105405	4	33	5	1	.4	4	9	23	11.87	8	5	ND	1	1	.2	2	4	1	.02	.008	2	3	.03	11	.01	3	.22	.01	.14	1	15
105406	68	5341	44	144	1.4	5	41	349	13.32	126	6	ND	6	8	.7	2	8	4	.03	.013	4	4	.32	27	.01	2	1.10	.01	.22	1	28
105407	9	21943	4	970	3.3	6	13	363	8.17	35	5	ND	5	1	2.4	2	11	7	.02	.012	6	5	.31	40	.01	2	1.15	.01	.18	1	91
105408	5	40635	26	9162	11.8	5	18	637	12.28	20	5	ND	2	18	45.9	2	61	6	.22	.123	9	6	.32	29	.01	2	1.50	.01	.18	1	22
105409	1	531	5	56	.3	5	21	3407	7.58	42	5	ND	1	87	.6	2	3	22	6.50	.015	8	5	.52	12	.01	2	1.66	.01	.08	1	97
STANDARD C/AU-R	18	57	39	132	6.7	70	31	1057	3.94	37	20	7	38	52	18.4	15	17	56	.56	.092	38	58	.93	180	.09	34	1.95	.06	.13	13	510

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.

Noranda Exploration Co. Ltd. PROJECT 9008-008 294 FILE # 90-3007

	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
105410	10	1025	2	26	.4	5	60	230	8.94	11	5	ND	1	15	.2	2	4	12	.56	.189	3	12	.43	17	.01	2	.95	.03	.20	1	28
105411	2	325	26	21	2.6	17	111	282	12.63	215	6	ND	1	2	.2	2	29	8	.10	.005	8	14	.11	8	.01	2	.36	.01	.04	1	1080
105412	2	10	3	25	.1	7	14	348	9.44	2	5	ND	1	4	.2	2	4	20	.21	.105	7	14	.97	14	.01	2	1.09	.09	.05	1	20
105413	2	30	2	3	.1	5	7	142	11.66	2	5	ND	1	3	.5	2	2	7	.07	.037	5	7	.02	33	.03	5	.22	.01	.16	1	3
105414	8	7	2	1	.1	12	20	31	3.15	2	5	ND	1	2	.2	2	2	1	.01	.007	2	5	.01	40	.01	4	.10	.01	.07	1	6
105415	4	9	2	2	.1	11	9	54	2.83	3	5	ND	1	1	.2	2	2	1	.01	.012	2	6	.02	53	.01	2	.19	.01	.12	1	6
105416	3	5	2	3	.1	8	7	117	3.72	2	7	ND	1	4	.2	2	2	2	.03	.025	2	3	.02	63	.01	2	.14	.01	.11	1	2
105417	6	10	2	1	.1	13	115	79	10.94	4	5	ND	1	2	.2	2	3	1	.03	.014	2	11	.01	6	.01	2	.18	.01	.13	1	31
105418	4	6	2	1	.1	12	90	65	7.74	2	5	ND	1	1	.2	2	3	1	.02	.012	2	8	.02	9	.01	2	.14	.01	.11	1	410
105419	97	114	117	44	2.1	9	4	128	6.88	89	5	ND	3	3	.2	2	16	2	.02	.007	8	8	.33	19	.01	2	.63	.01	.19	1	18
105423	3	3	2	1	.4	8	2	51	1.82	7	5	3	1	6	.2	2	2	1	.01	.008	3	3	.01	31	.01	2	.22	.02	.09	1	4520
105424	3	2422	2	35	.2	22	12	647	3.57	3	5	ND	1	3	.2	2	2	3	.20	.036	7	9	.85	16	.01	2	1.50	.06	.09	1	12
105453	4	17	2	1	.2	10	16	51	6.56	6	5	ND	1	6	.2	2	3	1	.06	.037	4	4	.04	14	.01	2	.27	.01	.18	1	13
105454	11	35	8	1	.3	6	9	61	17.97	3	5	ND	1	2	.2	2	7	1	.04	.012	3	4	.01	5	.01	2	.12	.01	.09	1	50
105455	6	7	2	3	.2	8	7	81	3.42	2	8	ND	1	5	.2	2	2	1	.12	.026	3	3	.06	33	.01	2	.30	.01	.19	1	11
105456	6	7	2	1	.1	10	6	26	2.14	2	5	ND	1	1	.2	2	2	1	.01	.002	3	3	.01	40	.01	2	.21	.01	.16	1	9
105459	3	137	2	42	.1	8	4	541	1.59	2	5	ND	1	6	.2	2	2	19	.15	.022	2	10	.51	25	.01	7	.63	.02	.01	1	3
105460	8	69	131	13	.6	13	43	174	11.13	3	6	ND	1	244	.2	2	2	29	.67	.042	2	14	.43	15	.05	2	.95	.01	.03	1	16
STANDARD C/AU-R	18	58	37	134	7.2	70	31	1050	3.93	38	16	7	39	53	18.4	15	20	55	.50	.096	38	60	.88	181	.07	35	1.85	.06	.14	14	540

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

GEOCHEMICAL ANALYSIS CERTIFICATE

Arc (TG) Arc 294 Results

Noranda Exploration Co. Ltd. PROJECT 9007-022 294 File # 90-2332 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	Au* ppb
108076	1	99999 ✓	2	19	11.3	1	20	394	23.71	10	5	ND	1	4	4.9	2	41	1	.85	.001	2	1	.07	16	.01	2	.09	.01	.02	1	75
108077	1	247	2	48	.3	7	36	3798	12.89	29	5	ND	1	41	5.0	2	2	2	9.43	.006	2	1	3.18	2	.01	2	.16	.01	.02	1	90
108078	5	970	9	7	.4	10	16	229	4.14	10	5	ND	1	2	.2	2	2	1	.03	.008	2	5	.02	25	.01	4	.13	.01	.09	1	340
108083	2	5711	6	8	5.5	6	16	200	10.85	459	5	22	1	3	.2	2	75	1	.52	.001	2	2	.16	8	.01	2	.14	.01	.11	1	25640
108084	3	39	3	1	.1	3	6	28	8.23	2	5	ND	1	10	.4	2	6	5	.04	.003	5	3	.01	55	.01	2	.23	.01	.18	1	67
108085	2	1461	2	25	.1	2	1	1137	1.44	2	5	ND	1	654	.2	2	2	4	4.05	.014	6	2	.45	323	.01	3	.68	.01	.03	1	22
109170	4	27	2	5	.1	12	1	94	.69	4	5	ND	1	17	.2	2	2	1	.09	.005	2	10	.04	314	.01	4	.05	.01	.02	1	6
109172	2	27528 ✓	2	39	1.7	14	13	1040	7.51	2	5	ND	1	12	1.4	2	7	57	.37	.012	2	24	1.56	21	.01	2	2.06	.01	.05	1	21
109173	2	11534 ✓	21	45	3.0	2	1	2823	4.05	5	5	ND	1	186	2.2	2	5	6	12.44	.013	3	1	.92	46	.01	2	.43	.01	.06	1	24
109174	2	105	32	30	.7	4	13	2413	5.35	156	5	ND	1	33	1.3	2	4	6	5.40	.045	2	5	1.54	27	.01	2	.36	.01	.10	1	33
109175	1	11749 ✓	2	27	1.0	1	1	4366	6.64	7	5	ND	1	134	3.2	2	6	9	15.14	.001	2	1	2.22	163	.01	3	.31	.01	.03	1	10
109493	2	59	68	25	.8	3	27	344	9.74	164	5	ND	1	4	.2	2	8	7	.17	.063	2	3	.32	9	.01	2	.97	.02	.08	1	66
109500	2	492	2	28	.1	6	40	1200	5.23	2	5	ND	1	10	.8	2	2	12	.78	.047	2	3	.60	50	.01	2	.93	.02	.06	1	16
STANDARD C/AU-R	17	58	37	133	7.2	66	30	1031	4.09	38	20	6	36	47	17.5	15	23	56	.51	.096	36	55	.92	174	.07	34	1.95	.06	.14	12	490

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: P1 Rock P2 Silt AU* ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPLE.

DATE RECEIVED: JUL 6 1990 DATE REPORT MAILED: July 12/90. SIGNED BY C. Leong ... D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

✓ ASSAY RECOMMENDED

RECEIVED JUL 17 1990

Copy to Mike

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

GEOCHEMICAL ANALYSIS CERTIFICATE

baoyfex (EG) ARC

Noranda Exploration Co. Ltd. PROJECT [redacted] File # 90-4130

Copy to Mike x2

P.O. Box 2380, 1050 Davie, 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
106968 AG	1	7	5	4	.1	5	13	63	2.07	7	5	ND	1	6	.2
106969 AG	2	6	3	3	.1	5	7	38	2.35	6	5	ND	1	3	.2
106970 AG	3	5	2	7	.1	5	4	254	5.00	58	5	ND	1	14	.2
106971 AG	1	20	2	11	.2	2	6	1169	1.36	3	5	ND	1	23	.3
106972 AG	4	8665	123	1	16.8	6	25	12	13.60	76890	5	27	2	3	.2
106973 AG	2	39	2	1	.7	1	55	29	14.42	222	5	ND	2	1	.2

SAMPLE#	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
106968 AG	2	4	1	.04	.014	2	1	.01	167	.01	2	.19	.01	.13	1	340
106969 AG	2	7	2	.01	.015	2	6	.01	12	.01	2	.13	.01	.07	1	750
106970 AG	2	10	1	.06	.018	9	5	.05	36	.01	2	.39	.01	.16	1	15
106971 AG	2	5	1	1.58	.009	4	1	.05	163	.01	2	.22	.01	.11	1	30
106972 AG	46	40	1	.01	.023	2	2	.01	8	.01	2	.24	.01	.07	1	$\boxed{31200}$ ✓
106973 AG	4	2	1	.01	.001	2	1	.01	8	.01	3	.25	.01	.15	1	1120

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: SEP 4 1990 DATE REPORT MAILED: Sept 10/90. SIGNED BY C. Leong D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

✓ ASSAY IN PROGRESS

RECEIVED SEP 13 1990

ARC

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 %	K %	La ppm	Li ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P %	Pb ppm	Sr ppm	Ti %	V ppm	Zn ppm	9009-021 Pg. 6 of 8
217	129054	5	0.2	4.44	41	279	1.9	3	0.48	1.0	82	17	18	47	5.55	0.56	36	13	1.00	1613	1	0.19	21	0.15	36	51	0.47	98	232	
218	129055	20	0.4	5.00	66	264	2.2	2	0.32	1.0	80	17	22	61	5.91	0.73	38	13	1.03	1686	1	0.15	21	0.15	49	36	0.44	104	297	
219	129056	10	0.2	4.84	9	226	1.9	4	0.32	0.3	78	19	27	32	5.98	0.41	30	12	0.94	1869	1	0.12	22	0.18	22	36	0.60	114	184	
220	129057	5	0.2	4.64	5	167	1.8	3	0.27	0.2	66	21	25	29	5.84	0.29	25	11	0.81	2063	1	0.09	21	0.18	14	27	0.67	125	146	
221	129058	5	0.2	4.15	14	457	2.0	5	0.47	0.7	77	20	17	41	5.51	0.47	31	13	1.10	2588	1	0.16	23	0.16	20	49	0.48	102	154	
222	129059	5	0.2	4.28	14	134	1.1	2	0.11	0.2	55	14	21	26	5.21	0.46	21	11	0.64	1186	1	0.06	12	0.14	23	16	0.40	92	168	
223	129060	5	0.2	5.40	2	93	1.3	3	0.18	0.2	48	4	21	15	4.64	0.09	22	6	0.21	289	1	0.07	7	0.16	10	14	0.47	81	79	
224	129061	10	0.2	5.11	8	317	2.5	4	0.35	0.2	81	13	20	34	6.06	0.32	32	12	0.45	1541	1	0.08	12	0.21	19	26	0.67	117	158	
225	129062	5	0.2	4.96	6	195	1.5	4	0.23	0.2	58	8	29	25	4.97	0.24	26	9	0.36	581	1	0.08	9	0.17	18	22	0.77	131	102	
226	129063	5	0.2	4.43	20	260	1.3	2	0.16	0.2	62	13	14	35	4.75	0.90	22	12	1.06	1509	1	0.06	12	0.09	34	22	0.23	79	214	
227	129064	10	0.2	5.00	3	306	1.6	4	0.37	0.2	70	13	18	27	5.78	0.55	28	11	0.79	1736	1	0.07	14	0.20	15	31	0.57	128	129	
228	129065	5	0.2	4.59	30	293	1.8	5	0.44	0.6	72	20	24	34	6.12	0.57	25	14	1.45	2618	1	0.11	22	0.14	42	31	0.48	129	243	
229	129066	25	0.2	4.09	51	228	1.7	5	0.25	0.7	65	20	27	34	5.92	0.41	21	12	0.88	3305	1	0.07	20	0.16	67	22	0.49	105	250	
230	129067	5	0.2	4.81	9	391	2.0	4	0.34	0.5	79	17	19	33	6.07	0.85	31	12	1.05	2904	1	0.10	21	0.15	30	34	0.43	91	179	
231	129068	5	0.4	4.53	10	248	1.9	2	0.25	0.3	66	17	29	36	5.92	0.42	26	14	0.87	2864	1	0.08	22	0.17	56	27	0.51	108	212	
232	129069	5	0.2	4.14	10	337	1.6	2	0.46	0.2	66	18	26	33	5.38	0.53	25	10	1.12	2088	1	0.13	24	0.16	11	44	0.49	95	130	
233	129070	5	0.2	3.80	7	277	0.9	2	0.11	0.2	50	9	9	23	3.86	0.99	20	8	0.80	1576	1	0.05	8	0.08	12	19	0.12	42	90	
234	129071	5	0.2	5.19	5	267	2.2	2	0.12	0.2	82	18	13	27	5.14	0.67	37	11	0.76	1841	1	0.07	13	0.15	12	12	0.36	91	145	
235	129072	5	0.2	4.20	13	226	1.1	2	0.22	0.2	48	16	12	25	4.92	0.74	19	10	1.21	1816	1	0.08	17	0.12	5	22	0.33	73	99	
236	129073	10	0.2	4.81	16	283	1.4	2	0.20	0.2	59	18	23	57	5.60	0.83	23	14	1.02	2839	1	0.07	23	0.20	10	26	0.34	88	129	
237	129074	5	0.2	4.20	12	254	1.4	2	0.11	0.2	58	15	15	38	4.82	0.81	23	10	1.04	2210	1	0.05	20	0.11	7	14	0.26	64	88	
238	129075	40	0.2	4.74	50	380	1.3	2	0.13	0.2	55	11	7	82	5.66	1.19	23	9	0.81	2639	1	0.05	11	0.11	10	22	0.19	54	84	
239	129076	75	0.4	4.32	36	190	1.4	6	0.32	0.2	59	17	23	95	5.87	0.55	21	10	1.05	1946	1	0.13	25	0.15	11	36	0.44	87	94	
240	129077	5	0.2	4.46	24	327	1.3	2	0.12	0.2	58	12	6	44	4.75	0.97	21	8	0.74	1604	1	0.05	9	0.11	8	19	0.25	64	71	
241	129078	5	0.2	4.74	10	193	2.0	6	0.41	0.2	71	16	15	40	5.25	0.53	31	12	0.75	948	1	0.13	13	0.14	8	41	0.59	102	92	
242	129079	5	0.2	5.59	2	238	1.4	2	0.15	0.2	59	9	6	14	4.31	1.45	20	12	1.05	2684	1	0.03	7	0.12	9	13	0.15	43	68	
243	129080	5	0.2	4.65	2	319	1.2	2	0.19	0.2	59	10	7	18	4.65	1.06	21	9	0.92	3234	1	0.08	8	0.14	9	22	0.23	54	85	
244	129081	5	0.2	4.25	2	304	1.3	4	1.19	0.2	69	16	12	27	4.85	0.72	29	11	1.24	1099	1	0.39	16	0.12	4	121	0.51	87	104	
245	129082	5	0.2	4.85	2	193	1.2	5	0.99	0.2	73	21	17	39	5.51	0.56	30	12	1.28	791	1	0.31	24	0.19	7	91	0.82	127	126	
246	129083	5	0.2	4.36	2	204	1.8	4	0.42	0.2	73	16	16	26	5.26	0.57	31	11	0.99	1319	1	0.16	20	0.14	5	41	0.50	94	120	
247	129084	5	0.2	4.34	2	261	1.2	4	0.17	0.2	57	12	17	23	4.71	0.85	23	10	0.93	1812	1	0.07	20	0.13	6	24	0.30	72	84	
248	129085	5	0.2	3.99	2	235	1.1	3	0.30	0.2	52	12	19	21	4.47	0.85	20	11	0.99	1373	1	0.12	19	0.10	4	38	0.26	69	76	
249	129086	5	0.2	5.79	2	372	1.6	5	0.24	0.2	57	13	12	80	6.20	1.46	24	12	0.98	1977	1	0.08	20	0.12	5	38	0.31	81	98	
251	129087	10	0.2	4.43	6	318	1.4	2	0.15	0.2	53	11	17	86	4.38	1.09	21	12	0.89	1622	1	0.03	17	0.11	8	20	0.13	63	78	
252	129088	5	0.2	6.10	2	453	1.8	5	0.27	0.2	57	10	9	35	4.58	1.72	20	12	0.85	2510	1	0.05	10	0.16	10	22	0.21	56	79	
253	129089	20	0.2	4.78	2	389	1.5	5	0.29	0.2	66	17	15	33	5.28	0.90	24	11	0.97	2855	1	0.08	17	0.17	8	32	0.36	85	92	
254	129090	35	0.2	4.83	4	478	1.4	6	0.75	0.2	86	16	11	31	5.48	1.00	35	12	1.18	1988	1	0.28	19	0.15	13	85	0.39	87	107	
255	129091	50	0.2	3.69	8	326	1.5	3	0.17	0.2	66	12	16	30	4.67	0.76	26	12	0.88	1492	1	0.06	17	0.09	7	22	0.19	66	91	
256	129092	55	0.2	4.36	2	246	1.2	3	0.42	0.2	55	14	11	32	5.09	0.84	21	12	0.95	1398	1	0.15	16	0.12	5	45	0.39	80	89	
257	129093	10	0.2	4.05	7	370	2.9	3	0.38	0.2	101	13	15	33	5.12	0.67	43	15	0.85	1485	1	0.16	19	0.11	11	37	0.31	70	146	
258	129094	30	0.2	3.95	5	351	1.5	5	0.44	0.2	74	14	17	38	4.79	0.86	30	14	1.00	1641	1	0.13	21	0.10	10	39	0.24	67	114	
259	129095	5	0.2	6.12	4	250	1.4	4	0.07	0.2	59	9	5	24	4.54	1.84	24	13	0.72	1489	1	0.07	8	0.11	10	38	0.14	69	76	
260	129096	5	0.2	4.73	2	96	2.8	2	0.12	0.2	116	4	8	14	5.32	0.14	42	9	0.11	613	3	0.18	6	0.09	14	7	0.22	28	107	
261	129097	5	0.2	4.56	4	177	1.8	3	0.28	0.2	63	15	21	30	5.94	0.28	28	13	0.60	1678	1	0.11	14	0.19	9	28	0.63	113	94	

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 %	K %	La ppm	Li ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P %	Pb ppm	Sr ppm	Ti %	V ppm	Zn ppm	9009-021 Pg. 7 of 8
262	129098	5	0.2	4.64	2	341	2.3	5	0.46	0.2	85	13	22	29	5.29	0.52	37	15	0.73	1040	1	0.14	19	0.17	12	51	0.56	101	140	
263	129099	5	0.2	4.71	3	250	1.6	3	0.35	0.2	75	14	20	30	4.70	0.54	32	14	0.66	1014	1	0.12	19	0.18	13	40	0.56	102	124	
264	129100	5	0.2	3.84	8	363	2.2	2	0.21	0.2	92	10	21	36	4.86	0.68	37	15	0.75	1128	1	0.10	21	0.11	7	27	0.25	66	125	
290	129651	5	0.2	4.64	8	208	1.2	6	0.48	0.2	68	16	28	36	5.75	0.59	26	13	0.94	828	1	0.16	19	0.17	15	52	0.58	106	112	
291	129652	15	0.2	4.28	7	142	1.5	4	0.21	0.2	69	12	29	30	5.12	0.44	29	14	0.65	618	3	0.09	19	0.13	15	26	0.50	102	105	
292	129653	5	0.2	4.21	12	179	1.7	2	0.34	0.9	70	17	23	23	5.13	0.42	27	13	0.78	1157	1	0.14	21	0.13	31	37	0.51	95	213	
293	129654	5	0.2	4.13	6	192	1.0	3	0.06	0.2	63	12	29	20	4.53	0.73	23	15	0.79	769	1	0.04	20	0.08	11	15	0.21	67	98	
294	129655	5	0.2	4.24	15	235	1.4	3	0.14	0.2	79	14	27	43	4.73	0.80	30	13	0.70	1306	1	0.07	21	0.13	19	19	0.33	87	113	
295	129656	5	0.2	4.21	13	448	1.3	3	0.09	0.2	62	15	45	39	4.39	1.05	27	20	1.04	1211	1	0.04	49	0.09	19	16	0.15	86	112	
296	129657	5	0.2	3.80	10	191	1.0	2	0.44	0.2	66	14	20	27	4.41	0.64	23	11	0.86	1195	1	0.19	21	0.11	9	49	0.30	79	96	
297	129658	5	0.2	4.18	2	108	0.9	3	0.17	0.2	44	5	30	17	4.98	0.30	18	8	0.29	521	21	0.05	7	0.20	13	20	0.78	117	95	
298	129659	5	0.2	3.74	4	112	1.1	2	0.10	0.2	49	3	25	14	4.57	0.41	20	9	0.40	245	2	0.05	10	0.13	11	12	0.38	72	79	
299	129660	5	0.2	3.84	5	159	1.3	2	0.15	0.2	70	10	36	23	4.71	0.41	26	13	0.54	811	1	0.09	24	0.14	12	17	0.32	73	103	
302	129661	5	0.2	4.88	2	136	0.8	2	0.26	0.2	61	6	42	29	6.58	0.36	23	10	0.50	396	3	0.07	10	0.19	2	30	0.91	174	90	
303	129662	5	0.2	4.89	2	142	0.9	2	0.26	0.2	34	2	29	17	4.48	0.31	16	7	0.28	209	1	0.07	6	0.18	4	28	0.96	151	90	
304	129663	5	0.2	4.22	2	121	0.7	2	0.25	0.2	41	9	27	22	5.94	0.32	21	6	0.34	806	3	0.08	7	0.19	2	29	0.84	148	100	
305	129664	5	0.2	4.18	2	146	1.1	2	0.22	0.2	43	11	31	20	5.75	0.32	19	8	0.34	1468	5	0.08	9	0.21	2	25	0.76	134	116	
307	129666	5	0.2	3.10	3	416	0.7	2	0.24	0.2	33	10	26	16	4.04	0.76	14	12	0.64	2756	1	0.03	22	0.22	4	24	0.28	96	118	
308	129667	5	0.2	4.16	2	203	0.9	2	0.15	0.2	43	5	23	20	4.89	0.48	20	10	0.39	796	3	0.04	8	0.22	9	28	0.57	125	95	
309	129668	5	0.2	4.09	11	389	1.1	2	0.21	0.2	58	15	42	42	4.30	0.97	21	17	1.11	1601	1	0.04	42	0.10	8	21	0.12	85	111	
310	129669	5	0.2	4.59	6	401	1.8	2	0.14	0.2	82	14	30	41	4.98	0.98	30	17	1.02	2099	1	0.07	31	0.13	11	21	0.18	85	133	
311	129670	5	0.2	4.18	33	220	2.2	4	0.15	0.2	108	11	25	34	4.91	0.44	38	15	0.49	1562	3	0.14	19	0.12	18	16	0.29	68	139	
312	129671	5	0.2	3.52	2	119	0.8	2	0.13	0.2	37	5	26	18	5.03	0.35	15	8	0.29	710	1	0.06	9	0.17	7	17	0.55	106	97	
317	104471	5	0.2	4.11	2	165	1.1	2	0.06	0.2	108	13	15	18	4.89	0.77	28	13	0.62	1894	1	0.06	13	0.10	9	16	0.17	65	84	
318	104472	5	0.2	4.70	2	205	1.6	2	0.10	0.2	90	11	18	19	5.47	0.79	34	13	0.54	1722	1	0.07	14	0.15	10	24	0.31	78	93	
319	104473	5	0.2	4.69	15	271	1.4	3	0.24	0.2	69	15	11	25	5.07	1.19	27	11	0.88	1899	1	0.11	13	0.12	16	32	0.21	76	118	
320	104474	5	0.2	4.42	9	288	1.0	2	0.41	0.2	57	12	5	17	3.79	1.32	23	10	1.08	1369	1	0.16	11	0.07	11	51	0.13	54	93	
321	104475	5	0.2	3.59	10	242	1.4	2	0.16	0.3	64	13	15	24	4.15	0.99	29	12	0.73	1488	2	0.06	16	0.09	13	23	0.14	69	83	
322	104476	5	0.2	4.32	3	141	2.1	2	0.20	0.2	88	12	23	22	5.39	0.40	35	11	0.50	820	1	0.13	16	0.16	11	23	0.52	96	108	
323	104477	5	0.2	4.29	2	187	1.3	2	0.40	0.2	73	11	21	27	4.21	0.53	30	12	0.66	516	1	0.17	19	0.16	11	46	0.54	102	106	
324	104478	5	0.2	4.13	2	178	1.6	2	0.25	0.2	73	12	24	23	5.15	0.47	31	11	0.56	762	1	0.11	18	0.15	8	28	0.54	103	102	
325	104479	5	0.2	3.63	2	146	1.2	2	0.15	0.2	61	7	23	16	4.45	0.50	26	9	0.48	698	1	0.08	13	0.13	8	22	0.37	79	76	
326	104480	5	0.2	4.90	2	119	1.3	2	0.12	0.2	70	8	31	23	5.81	0.33	27	10	0.37	659	2	0.10	13	0.19	9	16	0.63	115	94	
327	104481	5	0.2	3.40	2	250	1.1	2	0.10	0.2	54	8	16	14	3.48	0.66	23	9	0.52	699	1	0.04	12	0.07	7	24	0.21	60	50	
328	104482	5	0.2	3.29	2	76	0.6	2	0.16	0.2	38	5	29	17	5.88	0.22	17	5	0.21	415	2	0.07	6	0.20	5	19	0.74	139	73	
329	104483	5	0.2	4.57	2	62	1.3	2	0.15	0.2	58	5	21	17	5.63	0.18	23	7	0.24	566	1	0.09	6	0.23	8	14	0.63	103	81	
330	104484	5	0.2	3.82	2	162	1.0	2	0.14	0.2	51	5	24	13	4.02	0.59	19	5	0.38	621	1	0.05	9	0.13	7	17	0.41	80	72	
331	104485	5	0.2	3.65	7	156	1.3	2	0.06	0.3	51	8	22	17	3.15	0.58	23	12	0.48	525	1	0.03	13	0.10	12	21	0.20	62	66	
332	104486	5	0.2	4.03	3	255	1.3	2	0.10	0.2	64	9	17	19	3.97	0.92	27	11	0.64	1064	1	0.05	15	0.10	10	18	0.21	64	76	
333	104487	5	0.2	4.64	3	280	1.3	2	0.29	0.2	74	12	18	22	4.82	1.03	30	12	0.86	1301	1	0.13	19	0.12	9	36	0.31	79	90	
334	104488	5	0.2	4.57	3	208	1.1	3	0.10	0.2	68	11	31	19	4.47	0.82	25	12	0.70	1086	1	0.06	18	0.13	10	15	0.31	76	86	

NORANDA VANCOUVER LABORATORY
Geochemical Analysis

OCT - 2 1990

Project Name & No.:	ARC – 294	Geol.: M.S.	Date rec'd:	SEP. 04	LAB CODE: 9009-021
Material:	337 SOILS	Sheet: 1 of 8	Date compl:	SEP. 24	Copy to Mike x 2

Remarks: • Sample screened @ –35 MESH (0.5 mm).
□ Organic

Au – 10.0 g sample digested with aqua-regia and determined by A.A. (D.L. 5 PPB)

ICP – 0.2 g sample digested with 3 ml HClO4/HNO3 (4:1) at 203 °C for 4 hours diluted to 11 ml with water. Leeman PS3000 ICP determined elemental contents.

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

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 %	K %	La ppm	Li ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P %	Pb ppm	Sr ppm	Ti %	V ppm	Zn ppm
2	12800E-9500N	5	0.2	3.25	2	133	0.6	2	0.15	0.2	27	5	37	13	3.11	0.84	11	7	0.99	620	1	0.09	6	0.05	2	12	0.07	32	66
3	9520	5	0.2	3.85	4	633	1.2	2	0.13	0.2	57	11	17	22	4.30	0.49	23	9	0.80	1556	1	0.05	11	0.11	9	15	0.24	68	83
4	9540	5	0.2	4.44	10	250	2.7	2	0.13	0.2	89	14	16	26	5.33	0.52	34	12	0.87	2034	1	0.10	14	0.14	8	13	0.37	81	118
5	9560	5	0.2	5.17	14	427	1.8	2	0.22	0.2	65	12	15	56	5.17	1.05	31	12	0.94	1878	1	0.07	17	0.18	10	24	0.35	94	103
6	12800E-9580N	5	0.2	4.64	12	253	1.3	2	0.43	0.2	59	17	14	41	5.19	0.82	25	10	1.11	1489	1	0.13	18	0.14	5	43	0.45	99	98
7	12800E-9600N	5	0.2	5.23	10	371	1.6	4	0.69	0.2	73	20	17	66	5.69	0.87	32	13	1.24	1908	1	0.20	22	0.16	6	68	0.56	114	123
8	9620	5	0.2	4.48	10	205	1.3	3	0.85	0.2	62	16	12	27	5.17	0.77	24	11	1.24	1210	1	0.34	17	0.13	7	94	0.51	94	97
9	9640	5	0.2	4.82	2	228	2.2	3	0.18	0.2	76	17	23	25	5.64	0.51	28	12	0.91	3066	1	0.08	23	0.16	7	18	0.46	99	99
10	9660	5	0.2	4.24	3	199	1.5	2	0.19	0.2	58	13	25	23	4.77	0.53	19	11	0.67	1700	1	0.06	14	0.16	6	19	0.40	92	88
11	12800E-9680N	100	0.2	3.97	9	278	1.5	3	0.18	0.2	58	18	21	41	5.17	0.58	23	12	0.87	2510	1	0.05	19	0.16	7	21	0.29	84	94
12	12800E-9700N	30	0.2	4.57	4	275	1.4	3	0.32	0.2	61	19	20	40	5.47	0.50	23	11	0.87	2032	1	0.07	19	0.18	4	30	0.49	105	91
13	9720	40	0.2	3.53	7	218	0.8	2	0.13	0.2	50	11	14	33	4.22	0.67	19	10	0.79	1759	1	0.06	13	0.12	6	24	0.14	60	80
14	9740	25	0.2	3.58	9	269	0.9	2	0.14	0.2	51	12	15	32	4.39	0.74	20	11	0.88	1899	1	0.05	15	0.11	3	24	0.13	62	75
15	9760	20	0.2	3.76	7	194	1.0	3	0.18	0.2	51	13	14	26	4.66	0.63	19	11	0.86	1603	1	0.07	15	0.13	4	26	0.27	76	84
16	12800E-9780N	20	0.2	4.75	6	311	1.5	4	0.25	0.2	62	15	17	63	5.24	0.97	26	13	1.00	1848	1	0.11	22	0.14	7	34	0.31	84	109
17	12800E-9800N	370	0.2	3.44	6	326	1.0	4	0.21	0.2	52	13	18	38	4.37	0.82	21	10	0.90	1681	1	0.05	18	0.09	4	20	0.17	59	77
18	9820	25	0.2	3.99	7	297	1.0	3	0.53	0.2	59	14	14	33	4.43	0.90	21	11	1.04	1802	1	0.21	16	0.11	5	60	0.24	65	79
19	9840	10	0.2	4.78	7	312	1.2	6	0.51	0.2	58	18	19	37	5.38	0.85	23	12	1.26	1881	1	0.18	24	0.14	7	55	0.42	93	106
20	9860	5	0.2	4.53	6	273	1.3	3	0.09	0.2	53	17	26	29	4.92	0.67	17	12	0.94	2298	1	0.04	19	0.12	6	17	0.27	78	77
21	12800E-9880N	10	0.2	4.27	4	280	1.5	3	0.22	0.2	57	15	18	29	4.94	0.69	22	13	0.86	2402	1	0.07	18	0.15	10	31	0.34	86	94
22	12800E-9900N	5	0.2	4.14	2	157	1.2	2	0.75	0.2	59	20	14	23	5.34	0.27	23	9	1.04	1294	1	0.20	17	0.14	2	68	0.74	119	107
23	9920	5	0.2	4.73	2	265	1.4	3	0.26	0.2	63	17	16	32	5.49	0.58	25	11	0.85	2197	1	0.08	17	0.18	8	27	0.49	103	110
24	9940	25	0.2	4.33	2	247	1.5	2	0.28	0.2	60	17	18	36	5.17	0.71	25	12	1.05	1674	1	0.11	21	0.13	4	33	0.39	88	119
25	12800E-9960N	5	0.2	4.05	2	242	1.4	2	0.15	0.2	59	14	23	29	4.81	0.70	24	12	0.90	1578	1	0.08	18	0.10	8	20	0.28	74	112
26	13000E-9400N	5	0.2	4.60	18	238	1.3	3	0.13	0.2	49	10	13	40	4.96	0.82	19	13	0.94	2297	1	0.05	12	0.12	9	18	0.22	65	94
27	13000E-9420N	5	0.2	5.66	9	415	1.8	2	0.32	0.2	78	11	8	78	5.78	1.17	31	14	1.05	3440	1	0.09	11	0.15	7	32	0.30	66	105
28	9440	35	0.2	4.24	9	366	1.2	4	0.26	0.2	58	15	12	31	4.92	0.85	22	11	0.82	3077	1	0.09	11	0.12	13	32	0.21	59	91
29	9460	65	0.2	4.31	15	266	1.4	4	0.20	0.2	56	20	21	57	5.31	0.79	21	13	1.08	2862	1	0.08	21	0.15	10	25	0.28	74	98
30	9480	5	0.2	3.86	14	330	1.3	3	0.29	0.2	52	16	19	35	4.85	0.53	17	9	0.81	2971	1	0.07	19	0.17	9	29	0.40	84	109
31	13000E-9500N	80	0.2	4.50	192	432	1.6	5	0.14	0.2	62	11	10	401	7.71	1.07	29	10	0.68	1822	3	0.04	13	0.14	15	40	0.19	61	78
32	13000E-9520N	5	0.2	5.83	2	162	1.5	3	0.39	0.2	50	22	19	27	6.40	0.21	17	7	0.65	1381	1	0.05	14	0.22	4	46	0.85	166	68
33	9540	5	0.2	4.00	3	301	2.7	2	0.25	0.2	82	11	13	25	4.68	0.69	38	12	0.80	1734	1	0.11	16	0.12	8	26	0.29	66	128
34	9560	5	0.2	5.83	2	1008	2.1	3	0.44	0.2	73	17	9	25	5.36	1.17	31	11	1.11	3218	1	0.09	14	0.17	12	39	0.41	115	102
35	9580	5	0.2	5.19	2	280	1.6	3	0.16	0.2	66	16	12	20	5.47	0.86	26	10	1.06	2969	1	0.06	15	0.17	9	19	0.39	86	89
36	13000E-9600N	5	0.2	4.36	2	176	1.3	3	0.64	0.2	61	19	15	25	5.43	0.48	23	10	1.11	1469	1	0.21	18	0.16	5	67	0.62	108	99

arc soils

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 %	K %	La ppm	Li ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P %	Pb ppm	Sr ppm	Ti %	V ppm	Zn ppm
82	13300E-9240N	5	0.2	3.92	6	126	1.6	2	0.34	0.2	69	18	18	29	5.20	0.28	26	10	0.71	1635	1	0.12	14	0.16	23	29	0.58	109	132
83	13300E-9260N	5	0.2	4.89	11	220	1.9	4	0.42	0.2	75	17	20	43	6.27	0.42	28	12	0.83	1790	1	0.13	16	0.22	16	37	0.69	130	147
84	9280	5	0.2	4.25	8	316	2.7	2	0.26	0.2	86	17	20	23	5.69	0.30	35	12	0.92	1644	1	0.11	20	0.15	12	20	0.52	97	152
85	9300	5	0.2	3.88	12	401	1.4	2	0.34	0.2	58	18	18	28	5.15	0.46	21	10	1.03	1908	1	0.10	21	0.15	15	38	0.46	91	138
86	9320	15	0.2	3.97	19	256	1.0	2	0.23	0.2	55	12	12	29	4.32	0.83	18	11	0.91	1494	1	0.08	13	0.09	22	37	0.19	59	135
87	13300E-9340N	5	0.2	4.53	12	378	1.9	3	0.29	0.2	75	17	21	48	5.63	0.52	30	13	0.84	2597	1	0.09	20	0.17	21	28	0.43	92	143
88	13300E-9360N	10	0.2	3.87	10	295	2.2	2	0.30	0.2	81	17	17	39	5.26	0.48	32	12	0.90	2105	1	0.12	18	0.13	17	27	0.40	80	144
89	9400	5	0.2	5.09	2	202	1.2	4	2.67	0.2	58	27	4	25	5.84	0.51	20	9	2.15	1536	1	1.13	22	0.13	5	310	0.70	94	100
90	9420	5	0.2	4.39	15	342	1.7	2	0.25	0.2	81	17	21	64	6.95	0.46	31	14	0.76	5994	1	0.06	16	0.18	11	25	0.34	80	108
91	9440	5	0.2	5.06	94	270	1.9	3	0.24	0.2	60	20	16	291	6.51	1.14	23	15	0.81	2413	3	0.06	16	0.17	17	40	0.35	109	91
92	13300E-9460N	5	0.2	5.04	4	191	1.7	5	0.46	0.2	73	23	19	32	6.43	0.37	30	11	1.10	1812	1	0.13	21	0.23	8	45	0.75	138	123
93	13300E-9480N	20	0.2	5.30	2	235	2.1	2	0.24	0.2	77	20	19	29	6.14	0.58	28	12	0.99	2198	1	0.10	21	0.18	8	29	0.59	116	112
94	13300E-9500N	5	0.2	4.85	2	243	2.8	4	0.52	0.2	99	21	13	35	6.25	0.47	43	14	0.86	2020	1	0.23	19	0.17	8	54	0.57	110	167
95	13400E-9200N	5	0.2	4.46	18	171	1.2	2	0.50	0.2	63	15	12	33	5.24	0.60	24	11	1.01	1289	1	0.22	15	0.13	17	57	0.45	89	150
96	9220	5	0.2	4.69	73	192	1.4	3	0.25	1.3	72	16	23	43	5.74	0.63	30	12	0.87	1699	1	0.11	21	0.15	105	28	0.44	93	411
97	13400E-9240N	5	0.2	4.94	92	429	3.7	3	0.27	1.5	110	14	19	65	6.10	0.72	56	17	0.82	1828	1	0.15	20	0.14	71	28	0.37	91	398
98	13400E-9280N	5	0.2	4.45	30	319	1.7	3	0.44	0.8	78	22	20	57	5.96	0.53	30	13	1.08	2955	1	0.14	21	0.16	16	45	0.49	103	222
99	9300	5	0.2	4.10	48	291	1.1	2	0.11	0.3	55	14	14	36	4.91	0.83	20	11	0.92	2074	1	0.04	13	0.09	20	27	0.22	75	209
101	9320	5	0.2	4.36	25	312	2.2	2	0.40	1.0	74	22	19	42	5.64	0.44	29	12	0.82	2648	2	0.13	21	0.20	17	45	0.54	105	171
102	9340	5	0.2	3.89	11	267	1.3	3	0.23	0.2	56	19	21	43	5.44	0.54	21	12	0.83	2879	1	0.08	19	0.16	17	28	0.37	91	127
103	13400E-9360N	5	0.2	4.24	2	166	1.4	4	0.39	0.2	54	18	17	32	5.43	0.20	19	8	0.68	1519	1	0.09	14	0.19	7	29	0.76	125	117
104	13400E-9380N	5	0.2	5.18	26	410	1.8	3	0.21	0.2	70	21	15	133	6.09	0.75	30	12	1.02	2447	1	0.06	19	0.16	15	26	0.47	105	111
105	9400	5	0.2	5.74	4	152	1.3	4	0.18	0.2	50	24	22	32	6.23	0.39	18	8	0.97	1875	1	0.04	20	0.24	11	17	0.70	147	93
106	9420	5	0.2	5.58	2	235	1.8	3	0.24	0.2	63	24	23	34	6.36	0.37	26	11	0.98	2001	1	0.06	22	0.22	9	24	0.69	137	97
107	13400E-9440N	5	0.2	6.40	2	165	1.9	5	0.35	0.2	68	33	20	28	7.09	0.19	27	8	1.03	1653	1	0.07	24	0.22	9	33	1.01	178	104
108	13500E-9120N	5	0.2	4.56	19	219	1.9	3	0.22	0.2	75	14	17	29	6.28	0.52	31	12	0.79	1755	1	0.10	15	0.14	22	24	0.48	92	186
109	13500E-9140N	5	0.2	4.20	30	194	2.1	2	0.25	0.4	75	15	20	29	5.73	0.41	30	11	0.88	1678	1	0.11	18	0.15	25	26	0.47	90	217
110	9160	10	0.2	4.25	9	186	2.1	2	0.28	0.5	72	15	19	25	5.47	0.38	27	11	0.74	1630	1	0.12	15	0.15	24	28	0.51	94	209
111	9180	5	0.2	5.16	13	182	3.0	5	0.22	0.7	90	23	22	32	6.38	0.29	37	13	0.91	1831	2	0.11	22	0.17	29	22	0.66	122	183
112	9200	5	0.2	3.82	16	293	4.4	2	0.15	0.6	145	8	13	29	5.04	0.37	46	14	0.46	1790	1	0.13	13	0.09	27	11	0.21	42	192
113	13500E-9220N	5	0.2	5.27	56	220	2.5	7	0.29	5.7	111	26	19	78	6.95	0.45	40	14	0.89	3561	3	0.10	18	0.21	349	28	0.59	113	957
114	13500E-9240N	5	0.2	4.66	8	132	1.8	2	0.12	0.2	77	9	17	29	5.42	0.51	33	11	0.60	700	1	0.09	10	0.11	33	13	0.39	78	173
115	9260	5	0.2	5.41	24	218	1.6	7	0.78	1.3	73	28	30	45	6.97	0.46	26	15	1.88	2538	1	0.22	34	0.20	34	62	0.71	153	321
116	9280	5	0.2	4.91	23	225	1.3	6	0.87	0.8	58	29	36	35	6.59	0.55	20	16	2.72	2220	1	0.13	44	0.13	26	39	0.65	164	291
117	9320	25	1.4	5.65	98	625	2.3	7	0.80	38.7	181	70	17	862	6.53	0.83	83	16	1.18	6849	12	0.14	24	0.20	1268	63	0.39	102	3092
118	13500E-9340N	5	0.4	4.89	120	389	1.9	8	0.78	1.2	83	25	18	54	6.20	0.57	30	14	1.37	3424	1	0.23	25	0.17	56	79	0.53	100	263
119	13500E-9360N	5	0.2	4.93	20	559	2.0	5	0.32	0.3	89	24	27	75	6.26	0.85	40	15	1.18	3464	1	0.08	32	0.14	18	35	0.39	105	153
120	9380	5	0.2	4.62	6	416	1.4	6	0.20	0.2	65	20	27	76	5.57	0.79	26	12	1.15	2167	1	0.05	26	0.13	10	28	0.36	100	111
121	9400	280	0.2	5.16	6	386	2.0	2	0.16	0.2	66	13	12	47	7.70	0.97	29	28	0.95	4564	1	0.05	13	0.12	8	39	0.15	52	134
122	9420	5	0.2	4.05	2	187	0.9	2	0.15	0.2	46	14	17	26	4.44	0.55	18	10	0.61	1914	1	0.05	13	0.16	6	26	0.33	75	102
123	13500E-9440N	5	0.2	4.70	2	359	1.9	2	0.31	0.2	70	18	22	30	5.60	0.49	26	12	0.87	2258	1	0.05	20	0.16	4	29	0.49	116	95
124	13600E-9100N	5	0.2	4.97	2	385	2.3	4	0.14	0.2	82	14	20	21	5.79	0.67	30	13	0.96	2512	1	0.06	17	0.16	5	18	0.39	93	118
125	13600E-9120N	5	0.2	4.07	2	303	3.0	3	0.13	0.2	107	8	15	19	4.92	0.65	36	[illegible]	0.71	2251	1	0.10	12	0.09	8	16	0.20	45	102

NRC soils

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 %	K %	La ppm	Li ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P %	Pb ppm	Sr ppm	Ti %	V ppm	Zn ppm	9009–021 Pg. 4 of 8
126	13600E-9140N	5	0.2	4.63	2	326	1.7	3	0.28	0.2	75	12	22	34	5.25	0.77	35	13	0.92	1376	1	0.10	17	0.14	9	33	0.42	94	116	
127	9160	5	0.2	3.62	2	472	2.6	2	0.27	0.2	88	9	18	24	4.18	0.84	37	15	0.89	1486	1	0.09	18	0.07	9	32	0.16	53	129	
128	13600E-9180N	5	0.2	3.69	12	384	4.0	4	0.24	0.4	120	11	14	24	5.35	0.39	57	14	0.56	1530	1	0.14	11	0.09	23	22	0.32	63	206	
129	13600E-9200N	5	0.2	4.37	12	324	1.8	4	0.41	2.3	78	18	15	41	7.40	0.47	27	12	0.72	4355	2	0.13	13	0.17	79	45	0.47	93	448	
130	9220	5	0.2	4.53	14	376	2.0	2	0.14	0.2	82	20	17	37	6.95	0.62	29	13	0.76	4423	2	0.08	13	0.14	17	16	0.35	92	190	
131	9280	5	0.2	5.02	40	650	2.2	2	0.31	1.2	84	20	34	60	6.73	0.74	38	16	1.16	3490	4	0.10	23	0.17	38	38	0.37	100	278	
132	9300	5	0.2	5.05	99	896	1.9	2	0.55	3.2	115	35	14	96	7.23	0.65	48	15	1.24	8677	3	0.15	27	0.17	92	56	0.30	111	487	
133	13600E-9320N	5	0.2	4.50	2	166	2.1	2	0.21	0.2	87	11	19	24	5.55	0.26	30	10	0.43	1020	1	0.11	11	0.13	16	21	0.59	101	133	
134	13600E-9340N	5	0.2	5.83	2	786	2.0	3	0.24	0.2	92	20	16	45	6.50	1.03	42	14	1.10	3973	1	0.07	20	0.19	8	33	0.48	130	139	
135	9360	5	0.2	5.78	2	462	2.1	3	0.40	0.2	91	20	17	46	7.40	0.95	37	14	1.01	3519	1	0.16	21	0.19	8	56	0.61	114	152	
136	9380	5	0.2	4.98	2	453	2.0	4	0.45	0.2	82	20	19	42	7.16	0.81	34	13	1.18	3157	1	0.17	24	0.15	5	64	0.53	103	147	
137	9400	5	0.2	5.86	2	248	1.2	3	3.12	0.2	59	30	3	23	6.36	0.66	21	9	2.50	1473	1	1.34	27	0.14	2	391	0.75	99	107	
138	13600E-9440N	5	0.2	3.28	3	444	4.0	2	0.24	0.2	109	9	16	19	5.09	0.40	50	14	0.57	1504	1	0.19	16	0.08	8	24	0.29	51	158	
139	13600E-9460N	5	0.2	3.45	4	312	3.4	2	0.25	0.2	96	11	16	19	5.03	0.37	41	13	0.64	1517	1	0.16	17	0.09	6	24	0.34	64	145	
140	9480	5	0.2	3.90	2	613	1.6	2	0.16	0.2	60	12	22	35	5.29	0.75	25	11	0.80	2895	1	0.06	18	0.09	6	39	0.25	68	91	
141	13600E-9500N	5	0.2	4.47	6	392	2.5	5	0.28	0.2	83	21	33	29	5.62	0.37	33	13	0.89	1841	1	0.07	31	0.15	10	25	0.52	112	105	
142	13700E-9100N	5	0.2	4.84	2	245	1.4	3	0.14	0.2	67	9	16	20	5.03	0.84	23	12	0.86	1467	1	0.07	12	0.13	7	23	0.36	77	93	
143	13700E-9120N	5	0.2	5.07	2	154	1.3	4	0.35	0.2	59	15	24	20	5.82	0.25	25	9	0.50	540	1	0.09	10	0.15	5	33	0.82	135	79	
144	13700E-9140N	5	0.2	4.26	2	222	1.2	4	0.32	0.2	48	14	21	21	5.58	0.39	18	10	0.66	1411	1	0.07	12	0.20	7	30	0.73	127	105	
145	9160	5	0.2	4.69	3	336	1.9	5	0.16	0.2	75	14	17	25	5.21	0.77	28	13	1.17	2012	1	0.06	19	0.12	9	18	0.36	82	94	
146	9180	5	0.2	6.32	6	592	2.9	4	0.15	0.2	100	14	18	56	7.14	0.90	46	16	0.72	2664	1	0.09	16	0.16	20	23	0.48	109	168	
147	9200	5	0.2	5.47	12	321	1.4	6	0.59	0.2	77	22	22	49	6.48	0.70	32	15	1.19	2265	1	0.20	22	0.23	26	65	0.66	129	171	
148	13700E-9220N	5	0.2	5.65	35	799	1.7	6	0.29	1.5	84	20	19	66	6.75	1.08	36	18	1.12	3346	1	0.08	17	0.16	65	37	0.33	106	351	
149	13700E-9260N	5	0.2	4.81	10	319	1.9	5	0.17	0.2	72	16	21	49	5.49	0.69	27	13	0.93	2145	1	0.07	21	0.15	13	23	0.35	88	122	
152	9280	5	0.2	4.96	8	716	2.0	6	0.26	0.7	77	22	18	40	6.08	0.80	37	12	1.09	2536	1	0.08	26	0.15	13	33	0.40	112	134	
153	9300	5	0.2	6.14	4	841	1.8	5	0.86	0.9	55	29	17	69	6.54	1.48	23	15	2.57	3888	1	0.25	33	0.14	7	89	0.30	197	161	
154	9320	5	0.2	4.85	4	600	2.1	5	0.33	0.4	81	20	16	71	6.10	0.90	37	14	1.30	2627	1	0.11	24	0.13	5	50	0.41	103	119	
155	13700E-9360N	280	0.2	4.67	9	516	1.4	5	0.84	0.4	83	20	8	56	5.90	0.86	32	11	1.30	3050	1	0.34	20	0.12	6	111	0.43	83	103	
156	13700E-9380N	5	0.2	4.70	2	371	1.4	6	0.76	0.6	66	22	14	27	5.53	0.32	26	10	1.03	1799	1	0.21	18	0.20	3	74	0.81	124	109	
157	9400	5	0.2	5.87	7	1086	2.2	4	0.20	0.5	105	19	16	55	7.01	1.25	47	13	1.01	5157	1	0.05	22	0.16	9	47	0.29	98	113	
158	9420	5	0.2	4.39	2	1640	2.0	4	0.61	0.4	81	14	14	49	4.84	0.71	35	11	0.64	3924	1	0.07	14	0.24	10	52	0.30	90	111	
159	9440	5	0.2	4.19	2	359	1.3	3	0.15	0.2	53	14	20	24	4.98	0.76	21	11	0.94	2127	1	0.06	19	0.13	7	38	0.33	86	82	
160	13700E-9460N	5	0.2	3.18	2	293	0.8	2	0.11	0.2	41	8	15	16	3.45	0.82	17	9	0.72	1271	1	0.04	13	0.07	5	37	0.12	51	60	
161	13700E-9480N	5	0.2	4.11	7	612	2.3	3	0.17	0.2	81	14	22	33	5.73	0.93	38	14	0.84	2079	1	0.07	24	0.10	12	45	0.21	75	129	
162	9500	5	0.2	4.06	9	596	1.2	2	0.15	0.2	66	17	22	24	5.73	0.74	24	11	0.90	2879	1	0.06	22	0.15	8	44	0.29	85	93	
163	9520	5	0.2	4.37	7	326	1.4	3	0.21	0.2	61	18	25	27	5.39	0.62	21	13	0.95	2172	1	0.07	25	0.15	8	26	0.42	102	93	
164	9540	5	0.2	4.56	3	192	1.3	3	0.28	0.2	53	23	22	28	6.12	0.44	20	11	1.09	1931	1	0.09	23	0.21	8	25	0.71	132	114	
165	13700E-9560N	5	0.2	4.37	8	341	2.0	3	0.19	0.2	76	17	25	25	5.15	0.64	30	14	0.86	1743	1	0.08	28	0.13	10	25	0.33	97	106	
166	13700E-9580N	5	0.2	3.62	7	265	4.7	2	0.31	0.2	133	10	14	21	5.38	0.51	63	17	0.62	1597	1	0.24	17	0.08	12	40	0.30	59	189	
167	13700E-9600N	5	0.4	4.57	4	353	2.6	2	0.39	0.2	94	17	29	35	5.75	0.63	43	16	0.97	1474	1	0.16	29	0.15	12	45	0.48	107	156	
168	13800E-9100N	5	0.2	6.10	2	1570	2.0	4	0.58	0.5	129	21	19	28	6.56	0.94	55	18	1.38	6465	1	0.11	26	0.20	10	52	0.46	93	118	
169	9120	5	0.2	5.49	4	714	2.0	2	0.17	0.3	104	12	14	17	5.30	1.04	31	14	1.04	5317	3	0.04	14	0.14	11	20	0.28	71	102	
170	13800E-9140N	5	0.2	5.68	3	385	1.3	4	0.02	0.2	74	12	9	18	4.27	1.56	24	15	1.08	1951	1	0.03	12	0.07	8	19	0.08	52	94	
171	13800E-9160N	5	0.2	4.17	5	128	1.2	7	0.15	0.2	60	6	21	22	5.02	0.41	24	10	0.37	363	2	0.07	9	0.16	17	21	0.66	115	82	

ATIC soils

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 %	K %	La ppm	Li ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P %	Pb ppm	Sr ppm	Ti %	V ppm	Zn ppm	9009-021 Pg. 2 of 8
37	13000E-9620N	15	0.2	4.15	2	363	2.0	3	0.71	0.2	81	13	18	27	4.96	0.75	34	12	0.89	2040	1	0.20	17	0.11	8	60	0.36	78	134	
38	9640	5	0.2	4.76	2	288	1.5	2	0.44	0.2	64	15	18	32	4.92	0.88	27	13	0.97	1466	1	0.13	19	0.14	14	45	0.43	93	116	
39	9660	5	0.2	4.53	5	205	1.4	4	0.46	0.2	71	17	40	38	5.02	0.72	29	13	1.02	869	1	0.19	24	0.15	13	50	0.48	102	132	
40	9680	5	0.2	4.78	2	214	1.4	3	0.27	0.2	59	15	24	28	5.08	0.69	22	11	0.85	1963	1	0.10	21	0.17	10	34	0.44	96	87	
41	13000E-9700N	5	0.2	4.40	5	255	1.6	2	0.19	0.3	58	15	23	30	4.63	0.84	23	13	0.88	2144	1	0.07	22	0.13	8	27	0.25	76	76	
42	13000E-9720N	5	0.2	3.89	4	215	0.9	3	0.15	0.2	41	11	20	21	4.28	0.78	16	12	0.77	1291	1	0.06	18	0.11	6	26	0.21	71	67	
43	9740	5	0.2	4.37	2	231	1.2	3	0.65	0.2	60	19	18	27	5.44	0.58	24	10	1.12	1550	1	0.20	20	0.15	4	72	0.56	103	87	
44	9760	5	0.2	5.86	2	207	1.2	4	0.52	0.2	48	28	22	43	6.19	0.91	17	18	1.22	1796	1	0.31	44	0.15	5	67	0.40	138	104	
45	9780	5	0.2	4.40	2	276	1.3	2	0.25	0.2	54	15	17	26	4.90	0.94	23	14	1.02	1265	1	0.12	25	0.10	4	46	0.25	81	99	
46	13000E-9800N	5	0.2	5.38	2	160	1.6	5	0.21	0.2	62	22	23	65	5.74	0.45	19	11	0.80	1619	1	0.07	20	0.17	6	24	0.58	126	70	
47	13100E-9300N	5	0.2	4.46	64	232	2.0	3	0.23	0.4	80	16	21	37	5.47	0.63	27	13	0.99	2221	1	0.11	18	0.13	30	25	0.37	87	190	
48	9320	5	0.2	4.89	78	249	1.9	4	0.20	0.8	80	18	17	72	5.71	0.67	29	13	1.03	2471	1	0.08	17	0.14	55	25	0.37	96	226	
49	9340	15	0.2	5.05	33	362	1.6	3	0.40	0.4	73	14	19	115	6.37	0.67	28	17	1.15	2491	1	0.10	14	0.19	22	39	0.45	139	199	
51	9360	5	0.2	4.73	32	303	2.3	3	0.37	0.5	84	18	19	38	5.77	0.65	33	16	1.07	2555	2	0.14	21	0.15	38	42	0.43	101	194	
52	13100E-9380N	5	0.2	5.07	18	278	2.0	3	0.31	0.4	67	21	33	48	6.36	0.64	24	16	1.47	3600	1	0.09	27	0.15	40	27	0.44	129	225	
53	13100E-9400N	5	0.2	3.84	10	289	1.7	3	0.29	0.2	69	16	17	32	5.08	0.66	27	12	1.29	1924	1	0.12	26	0.11	12	27	0.31	75	127	
54	9420 *	5	0.2	5.60	8	238	1.4	2	1.98	0.2	60	24	4	33	5.87	0.83	20	10	2.10	1764	1	0.80	23	0.15	5	232	0.60	91	108	
55	9440	6	0.2	4.98	18	352	1.6	3	0.36	0.2	68	20	17	48	6.04	0.67	29	12	1.09	3183	1	0.09	19	0.18	10	32	0.47	114	110	
56	9460	5	0.2	4.55	9	148	1.6	2	0.20	0.2	58	17	18	37	5.61	0.35	23	9	0.52	2238	1	0.08	12	0.21	11	19	0.65	115	112	
57	13100E-9480N	15	0.2	4.74	10	165	1.8	4	0.44	0.2	72	18	15	36	5.89	0.63	30	12	1.13	1755	1	0.16	20	0.15	8	37	0.59	101	125	
58	13100E-9500N	5	0.2	4.45	3	150	1.5	4	0.36	0.2	60	17	21	25	5.09	0.64	24	10	1.07	1385	1	0.15	25	0.15	7	40	0.44	88	100	
59	9520	5	0.2	3.78	5	189	1.5	4	0.16	0.2	49	12	18	19	4.70	0.63	16	10	0.74	2358	1	0.06	14	0.16	8	18	0.34	74	90	
60	9540	5	0.2	4.95	2	168	1.4	3	0.64	0.2	61	26	18	27	5.97	0.32	22	9	1.27	1607	1	0.19	23	0.17	4	63	0.78	131	91	
61	9560	5	0.2	4.49	11	196	1.9	2	0.17	0.2	70	16	17	26	4.95	0.69	25	12	0.83	1888	2	0.07	17	0.15	14	19	0.32	87	85	
62	13100E-9580N	5	0.2	6.58	2	662	2.6	2	0.25	0.2	85	13	9	19	5.09	1.61	37	10	0.99	2699	1	0.06	14	0.18	12	20	0.31	98	96	
63	13100E-9600N	5	0.2	4.10	5	147	1.9	4	0.66	0.2	87	17	12	25	5.70	0.35	34	10	1.00	1140	1	0.29	17	0.14	8	57	0.65	102	137	
64	13200E-9300N	5	0.2	4.76	11	246	1.4	2	0.39	0.2	63	17	13	33	5.41	0.63	24	11	0.96	1364	1	0.11	13	0.13	20	40	0.54	110	183	
65	9320	5	0.2	4.23	20	335	1.3	2	0.21	0.2	56	14	11	32	5.11	0.75	23	10	0.98	1848	1	0.06	14	0.11	16	26	0.30	75	142	
66	9340	5	0.2	5.91	8	439	1.9	2	0.17	0.2	67	18	13	34	6.09	0.77	25	14	0.69	3044	1	0.06	15	0.18	9	22	0.51	99	122	
67	13200E-9360N	5	0.2	4.33	4	223	1.8	2	0.32	0.2	67	13	16	41	5.26	0.49	27	10	0.72	1723	1	0.13	15	0.17	12	35	0.45	91	109	
68	13200E-9380N	5	0.2	4.78	2	311	1.8	3	0.54	0.2	72	20	17	39	6.03	0.47	29	10	0.94	2372	1	0.15	17	0.18	14	51	0.65	111	132	
69	9400	10	0.2	3.81	8	258	1.3	2	0.33	0.2	58	16	14	33	4.89	0.60	22	9	0.94	2065	1	0.11	16	0.12	39	36	0.37	77	136	
70	9420	5	0.2	4.32	11	272	1.8	3	0.30	0.2	71	16	23	35	5.60	0.48	24	12	0.81	2923	1	0.12	20	0.15	11	34	0.39	82	119	
71	9440	30	0.2	5.18	41	469	1.9	4	0.14	0.2	70	18	12	49	5.63	1.00	30	14	0.91	3635	3	0.06	16	0.13	17	24	0.31	82	99	
72	13200E-9460N	5	0.2	4.92	45	259	2.7	3	0.24	0.2	100	14	14	118	5.91	0.88	38	15	0.80	1737	1	0.11	17	0.13	13	29	0.35	85	111	
73	13200E-9480N	5	0.2	4.76	3	177	1.5	5	0.28	0.2	59	20	16	29	5.62	0.63	23	11	1.18	1794	1	0.10	22	0.16	8	28	0.52	104	96	
74	9500	5	0.2	4.68	2	223	1.6	4	0.24	0.2	64	17	17	31	5.45	0.58	23	12	0.90	2394	1	0.09	19	0.16	14	26	0.46	94	109	
75	9520	5	0.2	5.01	3	182	1.8	4	0.18	0.2	64	18	17	34	5.53	0.55	22	11	0.87	1696	1	0.07	19	0.16	10	18	0.48	103	84	
76	9540	5	0.2	4.60	2	219	1.9	3	0.59	0.2	76	17	15	32	5.63	0.45	32	12	0.82	1084	1	0.20	18	0.17	11	67	0.63	111	124	
77	13200E-9560N	10	0.2	4.04	3	228	1.8	2	0.26	0.2	75	12	12	22	4.90	0.76	30	10	0.77	1522	1	0.13	13	0.11	9	33	0.36	71	99	
78	13200E-9580N	5	0.2	4.15	2	266	3.6	2	0.48	0.2	113	12	12	23	5.60	0.43	51	14	0.75	1636	1	0.26	14	0.12	10	49	0.47	80	147	
79	13200E-9640N	5	0.2	4.43	2	178	1.2	2	2.74	0.2	60	23	7	26	5.41	0.51	22	10	1.72	855	1	1.13	15	0.12	2	306	0.75	99	96	
80	13300E-9200N	5	0.2	4.89	2	91	3.1	3	0.20	0.2	98	11	16	17	5.84	0.15	40	8	0.47	1002	1	0.15	11	0.12	11	12	0.55	92	118	
81	13300E-9220N	5	0.2	4.15	12	218	2.0	2	0.30	0.4	63	15	23	28	5.21	0.29	26	11	0.56	1435	1	0.08	15	0.21	18	29	0.63	123	122	

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 %	K %	La ppm	Li ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P %	Pb ppm	Sr ppm	Ti %	V ppm	Zn ppm	9009-021 Pg. 5 of 8
172	13800E-9180N	5	0.2	5.27	3	371	1.4	3	0.20	0.2	71	13	14	34	5.14	1.15	25	15	1.13	2408	1	0.09	17	0.13	11	33	0.27	78	97	
173	9200	5	0.2	5.18	2	441	1.8	4	0.37	0.2	80	16	12	28	6.12	0.88	30	14	1.09	3228	2	0.13	16	0.17	9	46	0.47	99	109	
174	9220	5	0.2	5.07	4	932	2.0	5	0.88	0.5	102	20	11	28	6.32	0.58	38	14	1.26	4503	1	0.26	16	0.19	12	96	0.56	105	128	
175	13800E-9240N	5	0.2	4.66	4	272	2.0	3	0.15	0.2	83	13	11	20	5.08	0.55	26	13	0.60	2286	1	0.12	13	0.13	13	14	0.29	63	140	
176	13800E-9260N	5	0.2	6.16	2	148	2.2	6	0.15	0.2	85	16	20	26	6.62	0.26	33	10	0.44	977	1	0.11	12	0.15	13	13	0.63	122	105	
177	9320	5	0.2	5.71	4	686	1.8	3	0.19	0.2	82	16	14	63	7.29	1.09	34	17	1.00	3760	1	0.08	15	0.15	9	67	0.31	97	128	
178	9340	10	0.2	5.92	11	997	1.9	4	0.26	0.2	96	21	12	102	8.29	1.22	42	19	1.19	6130	2	0.08	17	0.14	13	121	0.27	90	161	
179	9360	5	0.2	5.42	6	1601	2.0	5	0.41	0.2	93	21	18	135	9.38	1.01	39	16	1.24	9285	2	0.08	17	0.15	14	72	0.24	105	154	
180	13800E-9380N	5	0.2	4.95	2	857	1.7	5	0.21	0.2	74	18	25	73	6.72	1.15	29	15	0.96	4081	1	0.10	22	0.13	10	101	0.23	97	148	
181	13800E-9400N	5	0.2	5.23	6	724	1.8	4	0.23	0.2	75	19	20	117	7.02	1.13	30	18	1.13	4761	2	0.09	20	0.13	12	99	0.32	102	133	
182	9420	5	0.2	4.91	2	720	1.8	2	0.43	0.2	77	17	13	79	7.07	0.95	32	16	1.14	4140	1	0.18	19	0.13	9	76	0.35	87	129	
183	9440	5	0.2	5.01	2	551	1.8	2	0.41	0.2	73	17	10	132	6.09	1.15	29	13	1.15	2467	1	0.18	19	0.13	6	65	0.34	92	125	
184	9460	5	0.2	4.94	3	512	1.4	2	0.40	0.2	59	13	8	27	5.48	1.24	23	13	1.14	2870	1	0.17	14	0.11	6	60	0.25	68	96	
185	13800E-9480N	5	0.2	5.73	2	1017	1.6	2	0.12	0.2	71	12	4	28	7.58	1.48	27	15	1.15	5735	1	0.05	11	0.12	6	31	0.16	46	108	
186	13800E-9500N	5	0.2	4.91	2	505	1.5	2	0.33	0.2	63	14	9	26	5.20	1.30	24	13	1.12	2802	1	0.15	15	0.10	7	50	0.20	71	102	
187	9520	5	0.2	5.59	2	622	1.9	2	0.30	0.2	72	15	17	37	6.27	1.08	28	15	1.19	4256	1	0.12	20	0.16	7	43	0.31	86	123	
188	9540	5	0.2	5.70	2	661	2.0	3	0.24	0.2	78	16	16	32	6.59	1.19	29	15	1.12	4997	1	0.06	20	0.17	9	31	0.30	86	125	
189	9560	5	0.2	6.40	3	816	1.8	3	0.25	0.2	77	18	15	45	7.49	1.81	35	13	1.02	5410	1	0.05	17	0.16	9	29	0.21	103	149	
190	13800E-9580N	5	0.2	6.11	7	741	1.6	2	0.09	0.2	74	10	8	18	7.03	1.54	29	14	1.01	7850	1	0.04	10	0.09	11	22	0.10	43	101	
191	13800E-9600N	5	0.2	4.38	7	293	1.9	2	0.15	0.2	68	15	26	35	5.10	0.73	28	15	0.85	2273	2	0.06	25	0.13	11	26	0.27	83	100	
202	129035	5	0.2	4.88	5	529	1.6	2	0.15	0.2	59	12	13	42	4.88	1.28	24	16	1.06	1831	1	0.08	20	0.09	10	33	0.17	69	105	
203	129036	5	0.2	6.52	2	807	1.8	2	0.14	0.2	77	18	14	90	7.89	1.21	31	22	1.18	5022	1	0.08	17	0.17	11	91	0.29	98	157	
204	129037	5	0.2	5.74	6	702	1.7	2	0.22	0.2	82	20	12	72	7.77	1.23	34	17	1.21	5283	2	0.09	17	0.15	13	79	0.26	98	138	
205	129038	5	0.2	5.25	4	971	1.6	2	0.83	0.2	81	23	10	73	6.72	0.92	34	15	1.50	3603	1	0.30	20	0.15	11	107	0.39	102	142	
206	129039	5	0.2	4.99	2	394	1.4	3	1.45	0.2	68	25	10	58	6.46	0.69	23	13	1.73	2763	1	0.62	24	0.16	8	174	0.55	105	118	
207	129040	65	0.4	5.34	20	528	2.0	4	0.21	0.4	82	21	18	75	6.95	0.71	38	18	1.01	3623	1	0.08	22	0.17	27	34	0.47	105	154	
208	129041	10	0.2	4.86	34	580	1.5	4	0.33	0.2	65	20	19	57	6.24	1.03	28	12	1.28	2479	1	0.10	21	0.13	14	47	0.36	92	110	
209	129042	5	0.2	4.83	15	312	1.9	2	0.14	0.2	66	16	23	46	5.52	0.72	27	13	0.95	2462	1	0.07	23	0.14	12	20	0.34	85	126	
210	129044	5	0.2	4.70	7	595	2.9	3	0.36	0.2	109	15	14	40	6.52	0.63	49	13	0.80	2490	1	0.15	14	0.15	19	35	0.47	100	181	
211	129045	5	0.2	4.47	14	300	2.9	6	0.19	0.2	94	17	18	35	6.06	0.48	42	14	0.93	1601	2	0.11	20	0.14	21	18	0.47	102	178	
212	129049	5	0.2	4.31	7	126	2.6	2	0.13	0.2	103	13	15	23	5.18	0.30	36	11	0.51	1400	1	0.11	13	0.11	17	10	0.37	68	134	
213	129050	5	0.2	3.29	6	136	1.1	4	0.39	0.5	52	10	18	25	4.81	0.23	20	9	0.62	813	1	0.09	11	0.16	22	30	0.62	108	138	
214	129051	5	0.2	4.55	8	155	2.9	2	0.21	0.2	102	15	17	27	5.78	0.32	38	12	0.71	1643	1	0.12	16	0.15	16	18	0.50	91	163	
215	129052	5	0.2	4.47	2	87	1.2	4	0.37	0.2	58	13	17	23	5.85	0.20	22	8	0.60	1137	1	0.11	10	0.15	8	27	0.87	132	95	
216	129053	5	0.2	4.54	26	141	2.2	2	0.17	0.7	84	11	20	38	5.77	0.36	34	12	0.57	1181	1	0.11	14	0.14	39	18	0.52	97	217	

Arc silts

Silts

Noranda Exploration Co. Ltd. PROJECT 9007-022 294 FILE # 90-2332 Page 2

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
silts ✓ 100829 A	3	49	11	470	.8	74	27	1785	7.43	8	10	ND	4	68	9.9	3	6	114	.90	.185	33	27	1.02	298	.71	5	6.30	.10	.06	1	1
108082 A	3	38	12	117	.1	22	19	1799	5.38	14	5	ND	1	56	1.3	3	2	63	.83	.084	15	23	1.29	194	.24	10	2.74	.12	.11	1	1
108086 A	1	21	3	60	.1	5	8	939	3.30	7	5	ND	1	17	.2	2	2	16	.38	.063	9	5	.75	173	.05	2	1.16	.04	.06	1	1
109494 A	6	25	11	113	.1	19	23	1319	6.93	7	5	ND	2	105	3.3	3	3	86	1.20	.091	13	18	1.49	213	.38	6	3.20	.28	.15	1	3

Silts - Arc

Noranda Exploration Co. Ltd. PROJECT 9007-066-294 FILE # 90-2771 Page 2

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
100833	5	40	10	265	.1	52	22	1283	6.23	262	7	ND	3	81	2.5	3	2	94	1.36	.098	25	35	1.14	482	.77	2	4.27	.11	.06	1	8
100834	1	38	4	106	.1	15	15	1214	4.67	11	5	ND	1	32	.2	2	3	39	.56	.080	9	21	1.39	247	.06	2	1.99	.03	.06	2	19
100835	2	60	10	137	.1	28	21	1692	5.61	21	5	ND	2	52	.5	2	2	72	.79	.082	16	29	1.43	299	.21	2	2.76	.06	.07	2	10
100836	2	35	7	121	.1	31	21	1729	6.21	18	5	ND	3	47	.5	2	3	90	.58	.068	21	26	1.30	266	.28	2	2.87	.07	.06	2	7
100837	38	17	8	190	.1	49	18	856	7.15	43	5	ND	2	91	.6	3	2	73	1.06	.068	11	47	1.14	241	.35	4	3.16	.02	.04	1	2
100838	4	63	13	154	.1	49	23	1790	6.26	37	6	ND	2	65	.8	2	2	91	.81	.088	21	29	1.36	380	.28	2	2.81	.07	.07	1	4
100839	2	49	8	171	.1	32	28	2388	6.70	30	5	ND	2	77	.7	2	2	98	1.06	.089	17	32	1.76	300	.42	2	3.69	.15	.08	1	17
100840	2	61	14	112	.1	33	21	1273	5.69	20	5	ND	2	32	.4	3	2	51	.38	.076	12	36	2.00	161	.09	2	2.71	.03	.06	2	8
100841	1	41	3	76	.1	9	16	1370	4.98	2	5	ND	1	11	.2	2	2	35	.30	.074	8	16	1.21	142	.03	2	1.73	.02	.05	2	7
100842	1	37	8	100	.1	40	17	916	4.93	14	5	ND	3	44	.3	2	2	55	.41	.054	15	36	1.65	177	.19	2	2.22	.03	.05	1	11
100846	1	40	6	151	.1	12	15	1692	5.11	2	5	ND	2	54	.2	2	2	43	.71	.082	11	18	1.37	327	.07	2	2.19	.06	.09	1	10
STANDARD C/AU-S	18	58	38	132	7.2	71	31	1021	3.99	40	15	7	39	52	18.7	15	19	57	.51	.094	39	60	.93	181	.09	35	1.97	.06	.14	11	50

APPENDIX V

ROCK SAMPLE REPORTS

NORANDA EXPLORATION COMPANY, LIMITED

N.T.S. ______

PROPERTY BARK / ARC

DATE July 18 1990

ROCK SAMPLE REPORT

PROJECT: ______

SAMPLE NO.	LOCATION & DESCRIPTION	% SULPHIDES	TYPE	WIDTH	Au	Ag	Mo	Cu	Pb	Zn	As	SAMPLED BY
	BARK											
105451	Qtz vein with hematite. fracture fill, strike 55° dip ≈75° to W	5	chip	.04	4	.1	1	6	7	18	2	C.
105452	vuggy Qtz vein with red sulphide weathering, 10m extent strike 80°	2	chip	.10	118	.1	3	6	2	1	15	CS
	ARC											
105413	.30m x .30m boulder, Massive hematite vein with .03m QTZ vein, diss. euhedral x'lls of py in QTZ, slightly vuggy texture, semi-rounded	5%	Float	—	3	.1	2	30	2	3	2	J.N
105415	1m wide Rusty brown weathered zone, vuggy, white QTZ vein, py in euhedrall x'lls	8%	chip	1m	6	.1	4	9	2	2	3	JNF
105417	.45m x .30m boulder, up to +25% pyrite in places, lt. grey QTZ, py diss., Red-brn weathering, alt fn grey Andesite?	12%	Float	—	31	.1	6	10	2	1	4	JNF
105418	~~100~~ 50m up hill from 105417 similar to 17 but more pyrite diss up to +35%, slightly more silicious, numerous scattered boulders	25%	Float	—	410	.1	4	6	2	1	2	JNF
105419	Qtz shears with veins of pure py up to 5cm, width varys of shear zone	10%	chip	1m	18	2.1	97	114	117	44	89	JNF

July 21

NORANDA EXPLORATION COMPANY, LIMITED

PROPERTY ARC

N.T.S.

DATE July 17th, 1990

PROJECT: 294

ROCK SAMPLE REPORT

SAMPLE NO.	LOCATION & DESCRIPTION	% SULPHIDES	TYPE	WIDTH	Au	Ag	Mo	Cu	Pb	Zn	As	SAMPLED BY
105411	pyritized float block of qz vein material Vuggy, white quartz veins cutting silicified grey rock, diss. py	20%	Float	-	1080	2.6	2	325	26	21	215	E.G.
105412	subrounded alt'd vols dissem py throughout & fractures	15%	Float	-	20	.1	2	10	3	25	2	E.G
												July 18
105365	grey, white QTZ vein in 5m wide rusty zone	1%	chip	0.15m	11	.3	2	2	4	46	5	JDH
105366	QTZ from 50cm wide siliceous, rusty, vein	1%	chip	0.5m	8	.1	2	60	4	38	2	JDH
104774	grey, white Qtz vein, 2m extent 75-80° strike. 80° dip to NW.	1%	chip	.10m	6	.2	18	32	6	51	32	C.S.
105368	Small QTZ and Sulphide vein	20%	chip	0.10m	25	.5	6	15	9	7	17	JDH
105424	Alt. Andesite with Malachite staining Tr-4% py, possible fracture filling only?	3%	Float	-	12	.2	3	2422	2	35	3	J.N.F.
105423	Vuggy QTZ vein, brn weathered surface, Tr mineralization, some pink QTZ visible, strike 030°	Tr	chip	0.10m	4520	.4	3	3	2	1	7	J.D.H

NORANDA EXPLORATION COMPANY, LIMITED

N.T.S. ______

PROPERTY ARC

DATE July 21/90

ROCK SAMPLE REPORT

PROJECT: 294

SAMPLE NO.	LOCATION & DESCRIPTION	% SULPHIDES	TYPE	WIDTH	G☐ A☐ Au	G☐ A☐ Ag	G☐ A☐ Mo	G☐ A☐ Cu	G☐ A☐ PB	G☐ A☐ Zn	G☐ A☐ As	SAMPLED BY
105339	QTZ vein in silicified Andesite 20% hematite	5%	chip	0.20m	40	0.1	5	33	6	13	42	JOH
105338	massive hematite vein w/ minor qz 060/70 SE 2.0m x 0.10m. Rusty weathering	0	chip	0.10m	14	0.1	1	5	4	1	8	ECG
105340	Barren quartz stringers in Andesitic volcanic rock. Strike ±090	0	chip	0.20m	7	0.1	2	86	2	6	2.	ECG

G = GEOCHEM A = ASSAY

NORANDA EXPLORATION COMPANY, LIMITED

N.T.S.

PROPERTY Arc

DATE July 19/1990

ROCK SAMPLE REPORT

PROJECT: 294

SAMPLE NO.	LOCATION & DESCRIPTION	% SULPHIDES	TYPE	WIDTH	Au	Ag	Mo	Cu	Pb	Zn	As	SAMPLED BY
105453	slightly siliceous quartz vein extent ~~[illegible]~~ up to 50m(?) 60° strike, rusty weathering	20-40	chip	.20m	13	.2	4	17	2	1	6	C.S.
105454	siliceous to pure quartz vein somewhat uggy with 20m extent 55-60° strike.	30-80	chip	1m	50	.3	11	35	8	1	3	C.S.
105455	siliceous to pure quartz vein somewhat uggy with 5m extent	30	chip	.30m	11	.2	6	7	2	3	2	C.S.
105456	very siliceous more quartz rich than 53,54,55 10m upslope from 56 60° strike	10-15	chip	2m	9	.1	6	7	2	1	2	C.S.
July 20,1990												
105459	White quartz vein in dark finegrained intrusive no sulphides visible, 10cm thickness 3m extent 160° strike as fracture fill	<1%	chip	.10m	3	.1	3	137	2	42	2	C.S.
105460	silicified pyritized intrusive. (altered) epidote, pyrite, and quartz	40-60	float		16	.6	8	69	131	13	3	C.S.

G - GEOCHEM A - ASSAY

NORANDA EXPLORATION COMPANY, LIMITED

N.T.S. 104 B/10

PROPERTY Arc

DATE July 18, 19 1990

ROCK SAMPLE REPORT

PROJECT 294

SAMPLE NO.	LOCATION & DESCRIPTION	% SULPHIDES	TYPE	WIDTH	G☐ A☐ Au	G☐ A☐ Ag	G☐ A☐ Mo	G☐ A☐ Cu	G☐ A☐ Pb	G☐ A☐ Zn	G☐ A☐ As	SAMPLED BY
105414	1m wide vuggy qz vein 090/50 SW with 10% dissem py in silicified intrusive.	10	chip		6	.1	8	7	2	1	2	ECG
105416	same as 105414 2m Exposure 120/80 NE.	10	chip		2	.1	3	5	2	3	2	ECG
105320	Rusty clay-qz-py vein/shear 15cm wide 084/65 S	3	chip		840	.3	6	23	4	3	5	ECG
105321	Rusty Vuggy drusy qz-pyrite vein	15	float		14	.2	3	2	2	3	2	ECG
105322	Angular 20cm boulder of chlorite rich intrusive containing pyritic quartz stringers		float		99	.8	4	690	14	58	94	ECG
105323	Angular 40cm block of dark green volcanic rock with 20% fine grained dissem. pyrite and some quartz stringers	20	float		31	.2	2	4	6	23	2	ECG
105325	Vuggy, frothy textured quartz vein with drusy quartz, Trace pyrite. Rusty orange	<1	float		810	1.4	7	242	12	10	141	ECG
105326	Pyritic quartz vein in Andesitic? host. Slightly vuggy texture w/ 15% py	15	float		65	1.2	2	22	10	51	59	ECG

G – GEOCHEM A – ASSAY

July 21

NORANDA EXPLORATION COMPANY, LIMITED

N.T.S. ______

PROPERTY ARC

DATE July 17th, 1990

ROCK SAMPLE REPORT

PROJECT: 294

SAMPLE NO.	LOCATION & DESCRIPTION	% SULPHIDES	TYPE	WIDTH	G☐ A☐ Au	G☐ A☐ Ag	G☐ A☐ Mo	G☐ A☐ Cu	G☐ A☐ Pb	G☐ A☐ Zn	G☐ A☐ As	SAMPLED BY
105407	Classic acid intrusive - porph. Cu bearing qz veins, Hematite common on fractures, Vuggy quartz veins with Cpy in intrusive host	20%	Float	–	91	3.3	9	21943	4	970	35	E. G.
105408	10m up hill from 105407, Cpy & py min. black chlorite rich f.g. intrusive, mineralization coarse, blebs of cpy to 1.5cm, py to 0.5cm, dissem throughout, cpy 2-20%, py-2%.	5%	Float	–	22	11.8	5	40635	26	9162	20	E. G.
105409	50m East of 105408, dk grey-green chlorite-rich Andesite rock, breccia with carbonate/hematite/qz matrix, Abundant py and cpy dissem. around perimeter of Andesite frags and py in qz lined vugs	7%	Float	-	97	.3	1	531	5	56	42	E. G.
105410	10m downhill from 105409, Pyritized float boulder (.20m) cpy-2%, Py-25%, and v/g and clustered into patches or dissem, fine qz veinlets crosscutting hosted in silicified Andesitic volc?	25%	Float	-	28	.4	10	1025	2	26	11	E. G.

July 21

NORANDA EXPLORATION COMPANY, LIMITED

N.T.S. ____

PROPERTY Arc

DATE July 17th, 1990

ROCK SAMPLE REPORT

PROJECT: 294

SAMPLE NO.	LOCATION & DESCRIPTION	% SULPHIDES	TYPE	WIDTH	Au	Ag	Mo	Cu	Pb	Zn	As	SAMPLED BY
105401	quartz vein at contact between qtz-fsp porphry (dike) and andesite	3%	chip	.03m	780	.3	5	984	2	6	3	E.G
105402	Pyritic vuggy quartz veins in hornblende granite intrusive. Rusty weathering, Euhedral qz crystals vuggs.	13%	chip		1	.2	3	4	2	4	3	E.G.
105403	chip, 50+ m wide shear zone, with individual shears 1-3m wide, weathered to Rusty pyrite dissem. in bleached shears, also qtz veins	20%	chip	2m	10	.2	4	5	2	1	3	E.G.
105404	white vein quartz, Minor Mal. stain on fractures & trace cpy in a few vugs	5%	float	.3x.5m	3	.2	5	717	3	3	2	E.G.
105405	pyritized shear zone, py up to 25%, shear zone bleached grey white, weathering to a rusty orange, locally silicified hosted in alt. intrusive	15%	chip	.2m	15	.4	4	33	5	1	8	E.G.
105406	vein chip, rusty pyritic & trace cpy mineralization	10%	chip	.10m	28	1.4	68	5341	44	144	126	E.G.

NORANDA EXPLORATION COMPANY, LIMITED

N.T.S. ____________

PROPERTY Arc

DATE July 17 / 1990

ROCK SAMPLE REPORT

PROJECT: 294

SAMPLE NO.	LOCATION & DESCRIPTION	% SULPHIDES	TYPE	WIDTH	G☐ A☐ Au	G☐ A☐ Ag	G☐ A☐ Mo	G☐ A☐ Cu	G☐ A☐ Pb	G☐ A☐ Zn	G☐ A☐ As	SAMPLED BY
105351	Rusty weathered, vuggy, QTZ vein Pyrite weathered out of vugs.	5	~~Grab~~ chip	0.15m	21	.4	5	15	3	3	25	~~EG~~ JDH
105352	Rusty weathered, vuggy, QTZ vein pyrite weathered out of vugs	7	chip	0.40m	12	.1	3	7	8	10	10	JDH
105353	Pyrite nodules in highly siliceous (QTZ?) vein with small QTZ veinleTs	20	chip	0.30m	78	.4	2	53	23	3	96	JDH
105354	Rusty weathered, vuggy, QTZ vein with pyrite in areas of vein as nodules. Vugs result of pyrite weathering.	5	chip	0.10m	56	.2	15	28	15	8	299	JDH
105355	QTZ vein with highly siliceous country rock interlayered.	15	chip	0.40m	18	.1	3	2	3	6	17	JDH
105356	Hematite-limonite-QTZ vein vuggy QTZ (weathered out pyrite?)	<1%	chip	0.40	260	1.2	4	380	23	8	312	JDH
105357	Vuggy QTZ vein, rusty with traces of red QTZ	2	chip	0.20m	9	.5	5	18	17	2	48	JDH

NORANDA EXPLORATION COMPANY, LIMITED

PROPERTY Arc

N.T.S.

DATE July 17/ 1990

PROJECT 294

ROCK SAMPLE REPORT

SAMPLE NO.	LOCATION & DESCRIPTION	% SULPHIDES	TYPE	WIDTH	G☐ A☐ Au	G☐ A☐ Ag	G☐ A☐ Mo	G☐ A☐ Cu	G☐ A☐ Pb	G☐ A☐ Zn	G☐ A☐ As	SAMPLED BY
105358	white QTZ with some vuggy Brown (RUSTY) QTZ	<1	CHIP	0.30m	700	.3	4	2	2	3	9	JDH
104768	felsic/siliceous intrusive with minor sulphide veining	3	float	0.01m	12	.1	1	1	7	411	5	C.S.
104769	felsic / siliceous intrusive with sulphide veining	5	grab	0.05m	4	.2	1	7	8	29	4	C.S.
104770	silicified host with carbonate/sulphide veining	10	grab	0.10m	18	.1	4	5	4	22	34	C.S.
104771	silicified host with carbonate/quartz sulphide veining ~~along bottom [illegible]~~	7.5	grab	0.15m	2910	2.6	9	4787	35	24	168	C.S.
104772	somewhat vuggy quartz vein with silicified host	10	grab	0.20m	45	.3	1	115	6	56	2	C.S.
104773	silicified intrusive with minor sulphide veining	1	grab	0.05m	25	.2	2	22	10	36	145	C.S.

NORANDA EXPLORATION COMPANY, LIMITED

N.T.S. 104B10

PROPERTY ARC Claims

DATE July 15th 1990

ROCK SAMPLE REPORT

PROJECT: 294

SAMPLE NO.	LOCATION & DESCRIPTION	% SULPHIDES	TYPE	WIDTH	Au	Ag	Mo	Cu	Zn	Pb	As	SAMPLED BY
109925	Dark grey to black Andesite containing diseminated pyrite, strike 060°, width 10-30cm, highly weathered,	6%	chip of Vein	20cm	7	0.1	3	3	4	7	12	AZ
100845	Dark grey to black Andesite containing diseminated pyrite, strike 060°, width 10-30cm, strike length approx 15m, minor Hemitite veining, 15m bellow sample #109925 down the creek, weathered	9%	chip of Vein	20cm	23	0.1	1	7	4	28	2	
100847	QTZ bolder approx 30cm by 25cm highly ~~sil~~, minor hemitite and hornblende, ~~dark~~ light green to white color of bolder	3%	float	–	13	0.1	2	14	3	11	13	
100848	Dark grey andesite grading into a smaller QTZ vein, alt., diseminated pyrte more abudant in QTZ but also in Andesite	5%	chip	15-20cm	12	0.1	3	11	3	11	2	
100849	Dark grey to black Andesite with minor traces of QTZ grading, diseminated pyrite mostly in QTZ.	3%	float	–	15	0.1	2	12	2	25	40	

NORANDA EXPLORATION COMPANY, LIMITED

N.T.S. 104 B/10

PROPERTY ARC

DATE JULY 14/90

ROCK SAMPLE REPORT

PROJECT 294

SAMPLE NO.	LOCATION & DESCRIPTION	% SULPHIDES	TYPE	WIDTH	G☐ A☐ Au	G☐ A☐ Ag	G☐ A☐ Mo	G☐ A☐ Cu	G☐ A☐ Zn	G☐ A☐ Pb	G☐ A☐ As	SAMPLED BY
80871	Calcite breccia, green volcanic clasts, minor spec. hematite, tr. cpy in calcite matrix. Float bldr 60x30cm	tr	Float	—	6	0.1	1	74	2	113	2	"
80872	Qtz vein or silicified rock as in 80870. More oxidized, pinkish weathered. Float bldr, 50 x 70 cm	tr.	"	—	1360	0.1	3	5	2	2	42	"
80873	Hematite breccia w min. py.. volcanic clasts. Float bldr, sub-angular. 25 cm diam.	min	"	—	2	0.1	1	1	2	24	4.	"

NORANDA EXPLORATION COMPANY, LIMITED

N.T.S. 104B/10

PROPERTY ARC.

DATE JULY 14/90

ROCK SAMPLE REPORT

PROJECT 294

SAMPLE NO.	LOCATION & DESCRIPTION	% SULPHIDES	TYPE	WIDTH	G☐ A☐ Au	G☐ A☐ Ag	G☐ A☐ Mo	G☐ A☐ Cu	G☐ A☐ Pb	G☐ A☐ Zn	G☐ A☐ As	SAMPLED BY
80864	Bleached, limonite stained zone in tuffs, 1-3% dissem py, some stringer quartz veins. Zone is about ½ m wide @ 070/74N	2	chips	0.5m	18	0.1	4	8	4	9	11	MS.
80865	As above, same zone, 25 m to west.	"	"	"	11	0.1	2	1	2	7	16	"
80866	Qtz-py vein, w bright orange limonite staining, coarse py. Subangular float bldr, 30 cm diam.	20	Float	—	3140	0.5	5	167	2	1	224	"
80867	Sheared, silicified volcanic (?) probable wallrock to veins, 2% dissem py. Subangular float bldr 0.5 m diam.	2	"	—	280	0.1	3	105	2	8	36	"
80868	Qtz, calcite ± barite breccia w green volcanic clasts, 1-2% cpy, malach.	2	"	—	10	0.1	3	1405	2	25	2	"
80869	Qtz breccia, similar to above, qtz is vuggy, drusy, minor cpy. 30 cm diam bldr.	<1	"	—	12	0.1	1	183	2	25	2	"
80870	Rusty orange weathered, very hard, cherty qtz vein or silicified rock, minor dissem py, most leached out 40 cm diam angular bldr.	<1	"	—	600	0.3	3	2	2	3	2	"

G – GEOCHEM A – ASSAY

NORANDA EXPLORATION COMPANY, LIMITED

PROPERTY Arc.

N.T.S. 104B/10

DATE July 10th, 1990

PROJECT 294

ROCK SAMPLE REPORT

SAMPLE NO.	LOCATION & DESCRIPTION	% SULPHIDES	TYPE	WIDTH	Au	Ag	Mo	Cu	Pb	Zn	As	SAMPLED BY
105306	-Float. Quartz vein w 5-10% dissemnated ~~to~~ fine grained pyrite	5-10	float		103	0.4	4	13	7	7	3	EG
105307	Pyritic andesitic tuff containing siliceous fragments. Matrix dark green. Float sample	10	float		36	0.1	2	9	3	55	9	"
105308	-Float. Specular hematite cemented. quartz vein breccia vein		float		15	0.1	2	3	2	4	2	"
~~[illegible]~~												

1 ~~8801~~

NORANDA EXPLORATION COMPANY, LIMITED

N.T.S. 104 B/10

PROPERTY Arc 10

DATE June 25

PROJECT: 294

ROCK SAMPLE REPORT

SAMPLE NO.	LOCATION & DESCRIPTION	% SULPHIDES	TYPE	WIDTH	G☒ A☐ Au	G☒ A☐ Ag	G☒ A☐ Mo	G☒ A☐ Cu	G☒ A☐ Pb	G☒ A☐ Zn	G☐ A☐ As	SAMPLED BY
108083	Subrounded boulders of quartz vein material containing disseminated to semi-massive pyrite, cpy. Cirque above Ernie Cr.	10%	float		25640	5.5	2	5711	6	8	459	ECG
108084	Boulder (20cm) of massive hematite cemented volcanic breccia	—	float		67	.1	3	39	3	1	2	ECG
108085	Subrounded boulders of massive coarse grained barite cemented volcanic breccia. Minor disseminated cpy and malachite stain	<1%	float.		22	.1	2	1461	2	25	2	ECG
* 108086	vuggy quartz vein pieces with weathered out sulphides		float		2100	0.2	1	6	6	2	61	ECG
108077	Carbonate vein (calcite + siderite) containing coarse disseminated pyrite.		float		90	.3	1	247	2	48	29	ECG
108078 ~~109178~~	Narrow quartz veins in andesite lapilli tuff containing trace py.	trace	rock.		340	0.4	5	970	9	7	10	ECG
109500					16	.1	2	492	2	28	2	C.S.

NORANDA EXPLORATION COMPANY, LIMITED

N.T.S. 104 B/10

PROPERTY Brompton Arc

DATE Aug 15, 1990

ROCK SAMPLE REPORT

PROJECT 294

SAMPLE NO.	LOCATION & DESCRIPTION	% SULPHIDES	TYPE	WIDTH	G☐ A☐ Au	G☐ A☐ Ag	G☐ A☐ Mo	G☐ A☐ Cu	G☐ A☐ Pb	G☐ A☐ Zn	G☐ A☐ As	SAMPLED BY
106970	5cm wide vuggy drusy qz vein, 1m strike 055/90. Hosted in felsic fragmental andesitic matrix Lapilli tuff. Rusty.	–	rock		15	0.1	3	5	2	7	58	EG
106971	30x10x10cm piece of milky qz vein Barren. Source likely nearby.	–	float		30	0.2	1	20	2	11	3	EG
106972	10cm subangular cobble of py cemented bleached volcanic breccia. Minor cpy <1%. A few pyritic qz veinlets.	50	float		31200	16.8	4	8665	123	1	76890	EG
106973	Rounded 9cm cobble of pyritic qz vein at toe of glacier	50	float		1120	0.7	2	39	2	1	222	EG

G – GEOCHEM A – ASSAY

NORANDA EXPLORATION COMPANY, LIMITED

N.T.S. 104 B/10

PROPERTY ARC.

DATE JULY 15/90

ROCK SAMPLE REPORT

PROJECT 294

SAMPLE NO.	LOCATION & DESCRIPTION	% SULPHIDES	TYPE	WIDTH	G☐ A☐ Au	G☐ A☐ Ag	G☐ A☐ Mo	G☐ A☐ Cu	G☐ A☐ Zn	G☐ A☐ Pb	G☐ A☐ As	SAMPLED BY
80875	Rusty weathering, bleached, silicified zone in volcanics, irreg. shape, minor dissem py.	<1	chip	1m	75	0.1	3	7	3	19	17	MS.
103762	Rusty wthring, bleached, pale green altered volcanic ≈ 2% dissem cpy, minor py, 20cm diam. angular bldr.	2	Float	—	680	0.5	2	2271	6	10	34	〃
~~[illegible]~~	~~[illegible]~~	~~5~~	~~[illegible]~~	~~—~~	~~[illegible]~~	~~[illegible]~~	~~1~~	~~5~~	~~[illegible]~~	~~54~~	~~[illegible]~~	〃
104755	Qtz - specular hematite vein in tuff. Vein at 082/90°	—	chip	0.1m	9	0.1	3	6	2	23	2	〃

NORANDA EXPLORATION COMPANY, LIMITED

N.T.S. 104 B/10

PROPERTY ~~Barytex~~ Arc 10

DATE June 23

ROCK SAMPLE REPORT

PROJECT: 29~~4~~

SAMPLE NO.	LOCATION & DESCRIPTION	% SULPHIDES	TYPE	WIDTH	G☒ A☐ Au	G☒ A☐ Ag	G☒ A☐ Mo	G☒ A☐ Cu	G☒ A☐ Zn	G☒ A☐ V	G☐ A☐ Cr	SAMPLED BY
* ~~109171~~	~~Quartz vein material with dissem pyrite, with weathered out [illegible] sulphide texture~~	~~3-4~~	~~float~~		~~5~~	~~0.2~~	~~1~~	~~7~~	~~6~~		~~24~~	~~EG~~
109172	Quartz veins to 4cm in andesite containing large blebs of cpy in veins and fine stringers in host		rock. (vein)		21	1.7	2	27528	39	57	24	EG
109173	Quart + calcite + siderite veins containing ~~cpy~~. coarse blebs (1.5cm) of cpy.		rock. (vein)		24	3.0	2	11534	45	6	1	EG
109174	Calcite + siderite veins w/ minor disseminated pyrite		rock (vein)		33	.7	2	105	30	6	5	EG
108076	Massive cpy "nugget" (4cm) from weathered carbonate vein.		Float.		75	11.3	1	>99,999	19	1	1	EG
109175	4cm carbonate vein with dissem cpy		rock		10	1	1	11749	27	9	1	EG
109493	Massive fine grained pyrite in mildly clay altered volcanic rock.				66	.8	2	59	25	7	3	C.S.

G - GEOCHEM A - ASSAY

NORANDA EXPLORATION COMPANY, LIMITED

N.T.S. 104 B/10

PROPERTY Arc

DATE Aug ~~23~~ 28, 1990

ROCK SAMPLE REPORT

PROJECT 294

SAMPLE NO.	LOCATION & DESCRIPTION	% SULPHIDES	TYPE	WIDTH	G☐ A☐ Au	G☐ A☐ Ag	G☐ A☐ Mo	G☐ A☐ Cu	G☐ A☐ Pb	G☐ A☐ Zn	G☐ A☐ As	SAMPLED BY
129680	12x5x2cm angular qz vein. Vuggy w/ drusy qz. Slightly pyritic. Rusty weathering.		float		123	1.0	2	74	4	8	125	EG
129681	Large, angular 1m block yellow-green altered andesitic volcanic. Rusty weath w/ vuggy, drusy qz veins.		subcrop?		639	0.3	2	25	2	2	93	EG
129682	1.0m angular chloritic plagioclase porphyry. Weak foliation dev. Fine veinlets of ~~[illegible]~~ drusy qz containing py, cpy, hem.	1	float		14	0.3	1	2471	2	27	2	EG
Aug 29 129683	Fine qz veinlets in pale green fine grain andesitic rock. Slight vugginess		~~block~~ rock		3	0.1	1	12	3	11	2	EG
129684	Purple siliceous andesitic rock w/ qz veins + hem. Slightly vuggy.		float		3	0.1	2	11	3	6	2	EG
[redacted]	[redacted]		[redacted]		[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

G - GEOCHEM A - ASSAY

NORANDA EXPLORATION COMPANY, LIMITED

N.T.S. 104B/10

PROPERTY Arc

DATE Aug 28

ROCK SAMPLE REPORT

PROJECT 294

SAMPLE NO.	LOCATION & DESCRIPTION	% SULPHIDES	TYPE	WIDTH	G☐ A☐ Au	G☐ A☐ Ag	G☐ A☐ Mo	G☐ A☐ Cu	G☐ A☐ Pb	G☐ A☐ Zn	G☐ A☐ As	SAMPLED BY
129686	Chloritic qz vein in welded lap. tuff w/ med. gr. dissem py in vein 0.5-1.0cm wide 130/80NE.		rock		99	0.5	1	20	6	35	64	EG
129687	Fracture containing 0-10cm wide rusty qz vein Frothy texture w/ 20% py	20	rock		909	0.4	2	44	2	6	194	EG
129688	Rusty, frothy textured 10x15x5cm piece of qz vein.		flt		396	0.5	2	13	2	2	91	EG
129689	Calcite veins cutting silicified pyritic alt'ed grey rock. py dissem	5	float		52	0.3	1	8	2	44	27	EG
129690	Vuggy drusy qz vein in chlorite alt'd andesitic lap. tuff (silicified) 5% dissem py 5cm wide 110/80N	5	rock		441	0.5	1	12	5	5	24	EG
[redacted]	[redacted]	[redacted]	[redacted]		[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]		[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

G — GEOCHEM A — ASSAY

NORANDA EXPLORATION COMPANY, LIMITED

PROPERTY Arc

N.T.S.

DATE Aug 28 /90

PROJECT # 294

ROCK SAMPLE REPORT

SAMPLE NO.	LOCATION & DESCRIPTION	% SULPHIDES	TYPE	WIDTH	Au	Ag	Mo	Cu	Pb	Zn	As	SAMPLED BY
129632	Andesitic host with disseminated sulphides slightly altered	1-3	chip	10m	2	0.2	1	61	6	40	15	C.S.
129633	highly altered rock with small sulphide veins	≤1%	float	--	5	0.8	5	117	18	67	19	C.S.
129634	15m SW of 104771, red weathering on bedrock	2-3	chip	.10m	~~495~~ 5	0.1	19	134	4	42	3	C.S
129635	15m W of 104771, heavily altered host rock.	2%	float		63	0.5	3	361	2	3	320	C.S
129636	10m up Strike from 104771, like 104771 altered sugary textured, 25m long extent	5-30	chip	.5m	2646	1.5	4	298	10	4	349	C.S
~~129637~~	~~[illegible] slightly [illegible]~~	~~1-3~~	~~chip~~	~~5m~~	~~23~~	~~0.1~~	~~1~~	~~11~~	~~7~~	~~9~~	~~10~~	~~C.S~~
129638	quartz/carbonate vein, black weathering, 120° strike, 13105E 9615N	1-3	chip	1m	5	0.3	1	9	4	105	4	C.S
129639	white quartz veins 9400BL 13625E	trace.	float		2	0.1	2	53	2	13	7	C.S.
129876	Fe stained siliceous vein 40cm wide in contact w/ grey-green sheared and silicified andesite. The vein contains 3-5% dissem py as cubes.	3-5%	chip	.4	4	0.1	1	8	2	29	6	D.G.
129877	- as above	3-5%	chip	.2	23	0.2	1	39	2	10	46	D.G.

NORANDA EXPLORATION COMPANY, LIMITED

N.T.S. 104 B/10

PROPERTY Arc

DATE Sept 8 1990

ROCK SAMPLE REPORT

PROJECT 294

SAMPLE NO.	LOCATION & DESCRIPTION	% SULPHIDES	TYPE	WIDTH	G☐ A☐ Au	G☐ A☐ Ag	G☐ A☐ Mo	G☐ A☐ Cu	G☐ A☐ Pb	G☐ A☐ Zn	G☐ A☐ As	SAMPLED BY
12969[illegible]4	Narrow (0.7cm) pyritic qz veins 117/90 Vuggy w/ drusy texture, some carbonate + few specks of cpy. Hosted in rusty weathering Lapilli tuff.	<1	grab.		550	0.4	1	8	5	22	80	EG
109170	Silicified grey volcanic? containing quartz veins		grab		6	0.1	4	27	2	5	4	EG

G = GEOCHEM A = ASSAY

NORANDA EXPLORATION COMPANY, LIMITED

N.T.S. 104 B/10

PROPERTY Arc

DATE Aug 14, 1990, Aug 15,

ROCK SAMPLE REPORT

PROJECT 296

SAMPLE NO.	LOCATION & DESCRIPTION	% SULPHIDES	TYPE	WIDTH	G☐ A☐ Au	G☐ A☐ Ag	G☐ A☐ Mo	G☐ A☐ Cu	G☐ A☐ Pb	G☐ A☐ Zn	G☐ A☐ As	SAMPLED BY
106959	Angular pieces of clay and carbonate altered volcanic with frothy quartz veins and pyrite seams.	2	float		65	2.3	4	26	56	34	90	EG
106964	Pyritic quartz veinlet in silicified fsp-crystal tuff; 1-2 cm wide, 1.5m strike 110/70SW.	1	rock		38	0.4	2	8	9	58	11	EG
106965	Same as 964 but w/only trace py. Minor siderite, limonite, chlorite 108/70 NE.	<1	rock		3	0.3	2	6	2	13	16	EG
106966	4 cm wide pyritic qz vein. Slight vuggy (frothy) texture str. 070/80SE	.2	rock		183	0.4	2	14	2	7	224	EG
106967	1 cm wide qz vein. Slightly vuggy, pyritic. In drk green chl + cal. altd. volc tuff w/ loc. dissem py	20	float		107	1.2	1	235	5	52	36	EG
106968	Subcropping 1-3 cm wide vuggy qz veins in silicified andesite tuff w/ Fine dissem py	1-3	subcrop		340	0.1	1	7	5	4	7	EG
106969	10 cm qz vein similar to 968. 1.5m exposure 108/90°	1	rock		750	0.1	2	6	3	3	6	EG

G = GEOCHEM A = ASSAY

NORANDA EXPLORATION COMPANY, LIMITED

PROPERTY Arc

N.T.S. 104 B/10

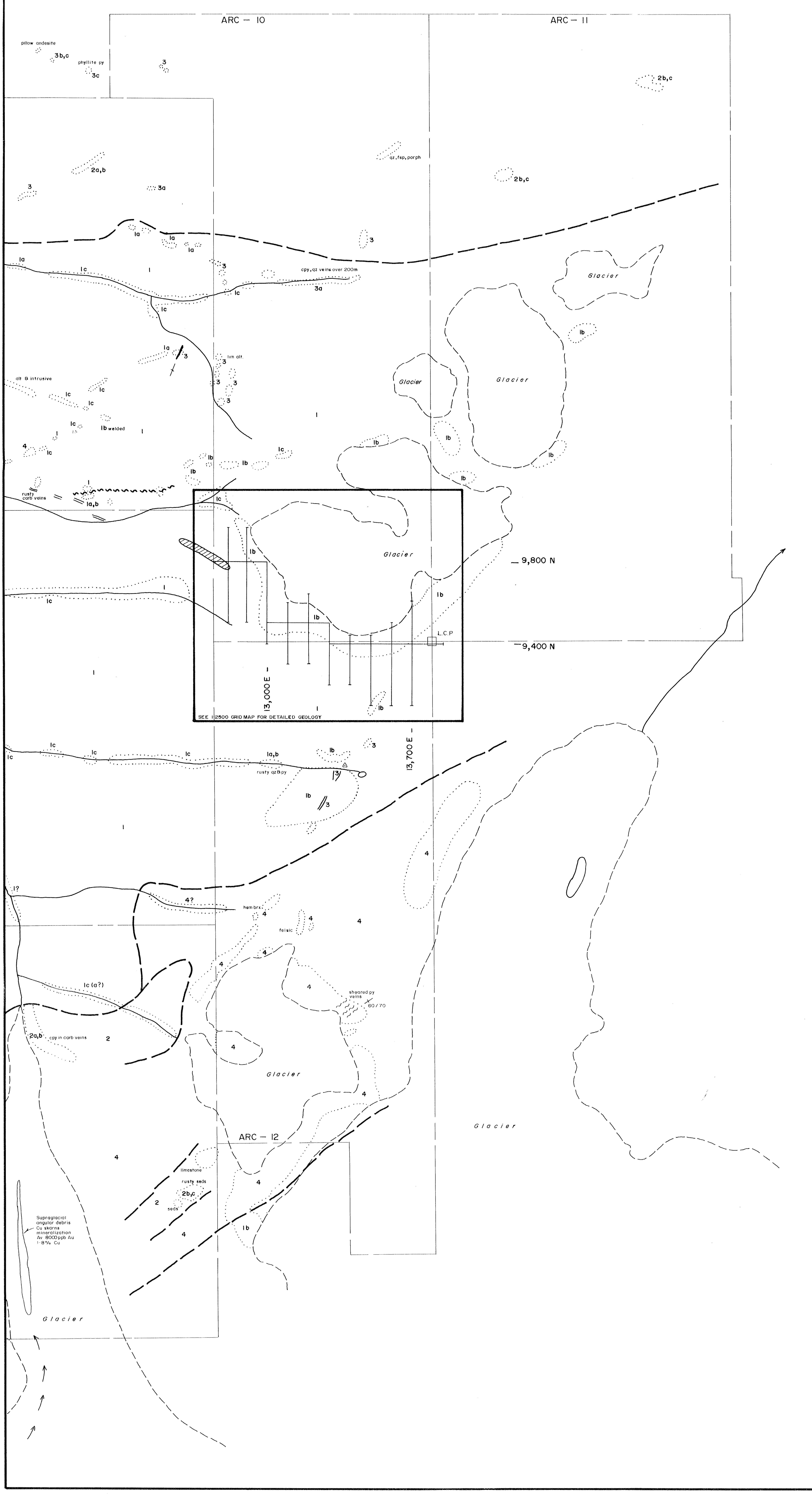
DATE July 19, 20

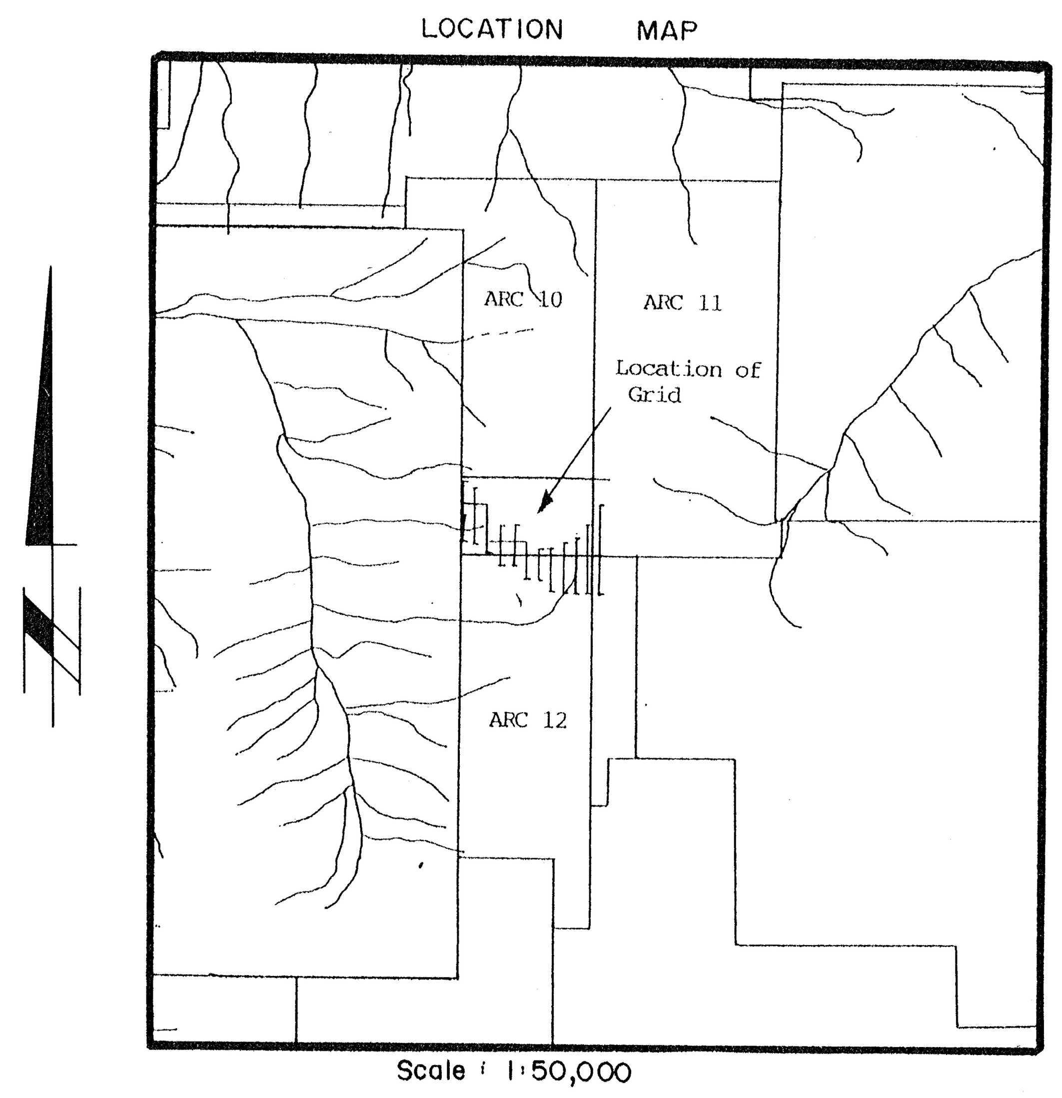
PROJECT 294

ROCK SAMPLE REPORT

SAMPLE NO.	LOCATION & DESCRIPTION	% SULPHIDES	TYPE	WIDTH	G☐ A☐ Au	G☐ A☐ Ag	G☐ A☐ Mo	G☐ A☐ Cu	G☐ A☐ Pb	G☐ A☐ Zn	G☐ A☐ As	SAMPLED BY
105327	Altd. andesitic volcanic with vuggy qz veins and pyrite. Rusty weathering	10	float		6	.1	4	2	2	4	2	ECG
105328	Subrounded 20cm boulder pyritic qz veins in silicified rock. Slightly vuggy	5	float		10	1.3	3	5336	3	31	6	ECG
105329	Quartz-carbonate stockwork veins in altered (silicified) felsic intrusive	0	chip		4	.1	3	1	2	8	5	ECG
104775	Qtz, vuggy with possible sulphides (arsenopyrite?) 95° strike.	5%	chip	1 m	17	3.0	6	15	33	2	812	GS

G = GEOCHEM A = ASSAY





LEGEND

Geology

1. Andesitic volcanics
   - a. flows
   - b. lapilli tuffs, crystal tuff
   - c. undifferentiated
2. Sediments
   - a. black shales
   - b. siltstone, sandstone
   - c. phyllite
3. Hbl-fsp porphyry (dykes) intrusive
4. Lehto intrusive, porphyritic, phaneritic, sheared
5. Eocene intrusive, granite, monzonite

Abbreviations

py – pyrite cpy – chalcopyrite
qtz. – quartz

Symbols

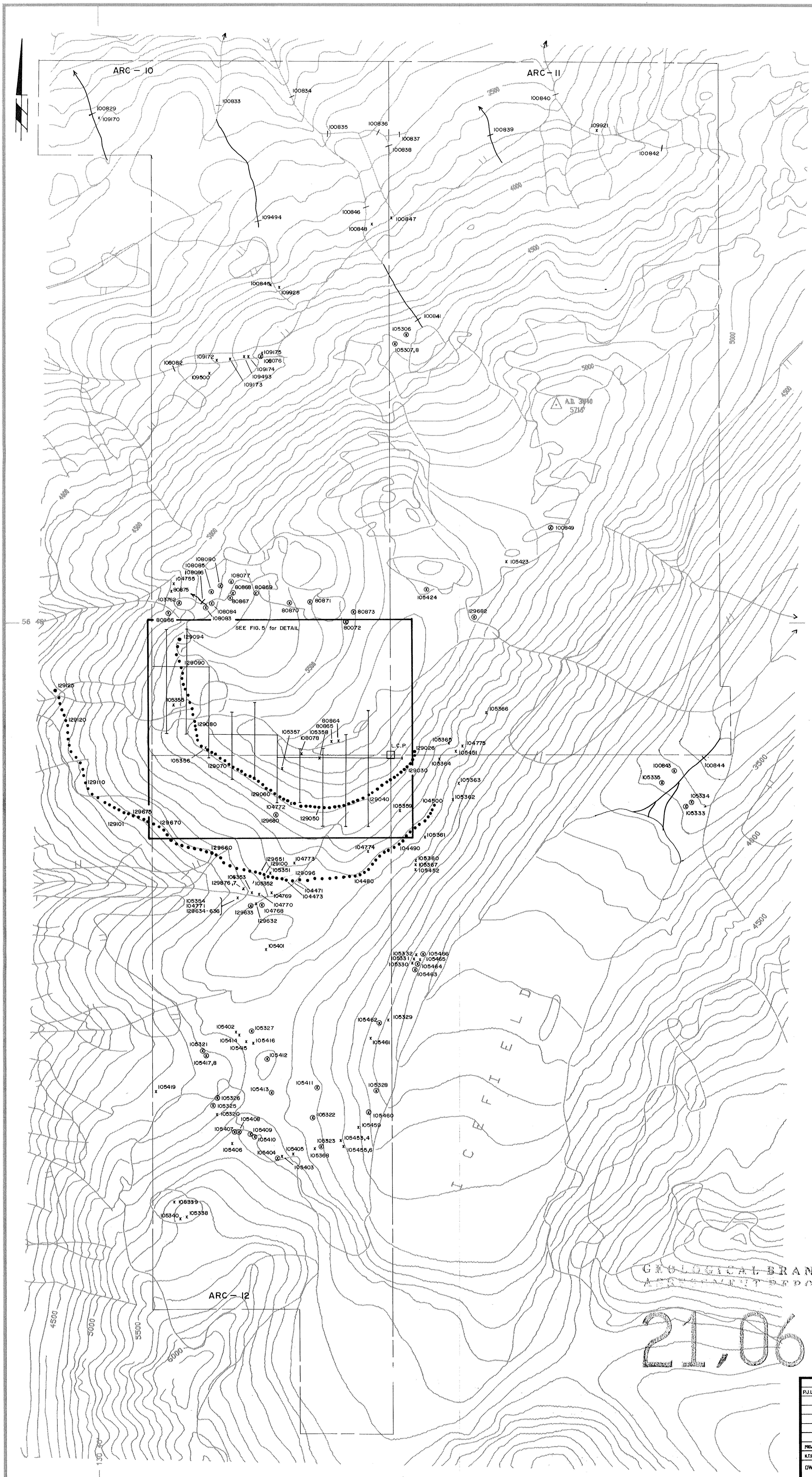
Outcrop 46 Bedding Orientation
Glacier 60 Vein Orientation
Creek 12 Shear/Foliation Orientation
Lithological Contact
Alt & Mineralization Zone

0 500 1000 metres
SCALE 1:10,000

GEOLOGICAL BRANCH
ASSESSMENT REPORT

21,067

REVISED	ARC PROJECT
	PROPERTY GEOLOGY
PROJ. No. 294	SURVEY BY: E.G. DATE: AUG. 1990
N.T.S. 104B/10	DRAWN BY: P.J.L. SCALE: 1:10,000
DWG. No. 3	NORANDA EXPLORATION OFFICE: PRINCE GEORGE, B.C.



ROCK GEOCHEM ANALYSES

Sample #	Au ppb	Ag ppm	Mo ppm	Cu ppm	Pb ppm	Zn ppm	As ppm	Sb ppm	Ba ppm
80866	3140	0.5	5	167	2	1	224	2	14
80867	280	0.1	3	105	2	8	36	2	21
80868	10	0.1	3	1405	2	25	2	2	815
80869	12	0.1	1	183	2	25	2	2	2006
80870	600	0.3	3	2	2	3	2	2	129
80871	6	0.1	1	74	2	113	2	2	124
80872	1360	0.1	3	5	2	2	42	2	35
80873	2	0.1	1	1	2	24	4	2	44
80875	75	0.1	3	7	3	19	17	2	54
100845	23	0.1	1	7	4	23	2	2	30
100847	13	0.1	2	14	3	11	13	2	198
100848	12	0.1	3	11	2	11	2	2	54
100849	15	0.1	2	12	2	25	40	2	72
103762	680	0.5	2	2271	6	10	34	2	38
104755	9	0.1	3	6	2	23	2	2	45
104768	12	0.1	1	1	7	41	5	2	76
104769	4	0.2	1	7	8	29	4	2	66
104770	18	0.1	4	5	4	22	34	2	36
104771	2910	2.6	9	4787	35	24	168	2	28
104773	25	0.2	[illegible]	22	10	36	145	[illegible]	19
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
108085	22	0.1	2	1461	2	25	2	2	323
109170	6	0.1	4	27	2	5	4	2	314
109172	21	1.7	2	27528	2	39	2	2	21
109173	24	3	2	11534	21	45	5	2	46
109174	33	0.7	2	105	32	30	156	2	27
109175	10	1	1	11749	2	27	7	2	163
109493	66	0.3	2	59	68	25	164	2	9
109500	16	0.1	2	492	2	28	2	2	50
109921	6	0.1	1	37	3	13	7	2	20
109925	7	0.1	3	3	4	7	12	2	43
129632	2	0.2	1	61	6	40	15	2	101
129633	5	0.8	5	117	18	67	19	3	33
129634	5	0.1	19	134	4	42	3	2	48
129635	62	0.5	3	361	2	3	320	2	53
129636	2646	1.5	4	298	10	4	349	2	36
129682	14	0.3	1	2471	2	27	2	2	65
129876	8	0.1	1	8	2	29	6	2	74
129877	23	0.2	1	39	2	10	46	2	67

SOIL GEOCHEM ANALYSES

SAMPLE #	Au ppb	Ag ppm	Mo ppm	Cu ppm	Pb ppm	Zn ppm	As ppm	Sb ppm	Ba ppm
104471	5	0.2	1	18	9	84	2	na	165
104472	5	0.2	1	19	10	93	2	na	205
104473	5	0.2	1	25	16	118	15	na	271
104474	5	0.2	1	17	11	93	9	na	288
104475	5	0.2	2	24	13	83	10	na	242
104476	5	0.2	1	22	11	108	3	na	141
104477	5	0.2	1	27	11	106	2	na	187
104478	5	0.2	1	23	8	102	2	na	178
104479	5	0.2	1	16	8	76	2	na	146
104480	5	0.2	2	23	9	94	2	na	119
104481	5	0.2	1	14	7	50	2	na	250
104482	5	0.2	2	17	5	73	2	na	76
104483	5	0.2	1	17	3	81	2	na	62
104484	5	0.2	1	13	7	72	2	na	162
104485	5	0.2	1	17	12	66	7	na	156
104486	5	0.2	1	19	10	75	3	na	255
104487	5	0.2	1	22	9	90	3	na	280
104488	5	0.2	1	19	10	86	3	na	208
129035	5	0.2	1	42	10	105	5	na	529
129036	5	0.2	1	90	11	157	2	na	607
129037	5	0.2	2	72	13	138	6	na	702
129038	5	0.2	1	73	11	142	4	na	971
129039	5	0.2	1	58	8	118	2	na	394
129040	65	0.4	1	75	27	154	20	na	528
129041	10	0.2	1	57	14	110	34	na	580
129042	5	0.2	1	46	12	126	15	na	312
129044	5	0.2	1	40	19	181	7	na	595
129045	5	0.2	2	35	21	178	14	na	300
129049	5	0.2	1	23	17	134	7	na	126
129050	5	0.2	1	25	22	138	6	na	136
129051	5	0.2	1	27	16	163	8	na	155
129052	5	0.2	1	23	8	95	2	na	87
129053	5	0.2	1	35	39	217	26	na	141
129054	5	0.2	1	47	36	232	41	na	279
129055	20	0.4	1	61	49	297	66	na	264
129056	10	0.2	1	32	22	184	9	na	226
129057	5	0.2	1	29	14	146	5	na	167
129058	5	0.2	1	41	20	154	14	na	457
129059	5	0.2	1	26	23	168	14	na	134
129060	5	0.2	1	15	10	79	2	na	93
129061	10	0.2	1	34	19	158	8	na	317
129062	5	0.2	1	25	18	102	6	na	195
129063	5	0.2	1	35	34	214	20	na	260
129064	10	0.2	1	27	15	129	3	na	306
129065	5	0.2	1	34	42	243	30	na	293
129066	25	0.2	1	34	67	250	51	na	228
129067	5	0.2	1	33	30	179	9	na	391
129068	5	0.4	1	36	56	212	10	na	248
129069	5	0.2	1	33	11	130	10	na	337
129070	5	0.2	1	23	12	90	7	na	277
129071	5	0.2	1	27	12	145	5	na	267
129072	5	0.2	1	25	5	99	13	na	226
129073	10	0.2	1	57	10	129	16	na	283
129074	5	0.2	1	38	7	88	12	na	254
129075	40	0.2	1	82	10	84	50	na	380
129076	75	0.4	1	95	11	94	36	na	190
129077	5	0.2	1	44	8	71	24	na	327
129078	5	0.2	1	40	8	92	10	na	193
129079	5	0.2	1	14	9	68	2	na	238
129080	5	0.2	1	18	9	85	2	na	319
129081	5	0.2	1	27	4	104	2	na	304
129082	5	0.2	1	39	7	126	2	na	193
129083	5	0.2	1	26	5	120	2	na	204
129084	5	0.2	1	23	6	84	2	na	261
129085	5	0.2	1	21	4	76	2	na	235
129086	5	0.2	1	80	5	98	2	na	372
129087	10	0.2	1	86	8	78	6	na	318
129088	5	0.2	1	35	10	79	2	na	453
129089	20	0.2	1	33	8	92	2	na	389
129090	35	0.2	1	31	13	107	4	na	478
129091	50	0.2	1	30	7	91	8	na	326
129092	55	0.2	1	32	5	89	2	na	246
129093	10	0.2	1	33	11	146	7	na	370
129094	30	0.2	1	36	10	114	5	na	351
129095	5	0.2	1	24	10	76	4	na	250
129096	5	0.2	3	14	14	107	2	na	96
129097	5	0.2	1	30	9	94	4	na	177
129098	5	0.2	1	29	12	140	2	na	341
129099	5	0.2	1	30	13	124	3	na	250
129100	5	0.2	1	36	7	125	6	na	363
129651	5	0.2	1	36	15	112	8	na	208
129652	15	0.2	3	30	15	105	7	na	142
129653	5	0.2	1	23	31	213	12	na	179
129654	5	0.2	1	20	11	98	6	na	192
129655	5	0.2	1	43	19	113	15	na	235
129656	5	0.2	1	39	19	112	13	na	448
129657	5	0.2	1	27	9	96	10	na	191
129658	5	0.2	21	17	13	95	2	na	108
129659	5	0.2	2	14	11	79	4	na	112
129660	5	0.2	1	23	12	103	5	na	159
129661	5	0.2	3	29	2	90	2	na	136
129662	5	0.2	1	17	4	90	2	na	142
129663	5	0.2	3	22	2	100	2	na	121
129664	5	0.2	5	20	2	116	2	na	146
129665	5	0.2	1	13	3	96	2	na	225
129666	5	0.2	1	16	4	118	3	na	413
129667	5	0.2	3	20	9	95	2	na	203
129668	5	0.2	1	42	8	111	11	na	389
129669	5	0.2	1	41	11	133	6	na	401
129670	5	0.2	3	34	18	139	33	na	220
129671	5	0.2	1	18	7	97	2	na	119

SILT GEOCHEM ANALYSES

Sample #	Au ppb	Ag ppm	Mo ppm	Cu ppm	Pb ppm	Zn ppm	As ppm	Sb ppm	Ba ppm
100829	1	0.3	3	49	11	470	9	3	298
100833	8	0.1	5	40	10	265	262	3	482
100834	19	0.1	1	38	4	106	11	2	247
100835	10	0.1	2	60	10	137	21	2	299
100836	7	0.1	2	35	7	121	18	2	266
100837	2	0.1	38	17	8	190	45	3	241
100838	4	0.1	4	63	13	154	37	2	380
100839	17	0.1	2	49	8	171	30	2	300
100840	8	0.1	2	61	14	112	20	3	161
100841	7	0.1	1	41	3	76	2	2	142
100842	11	0.1	1	37	8	100	14	2	177
100846	10	0.1	1	40	6	151	2	2	327
108082	1	0.1	3	38	12	117	14	3	194
108086	1	0.1	1	21	3	60	7	2	173
109494	3	0.1	6	25	11	113	7	3	213

LEGEND

Symbols

104753 Float Sample Location

105851 Heavy Mineral Concentrate

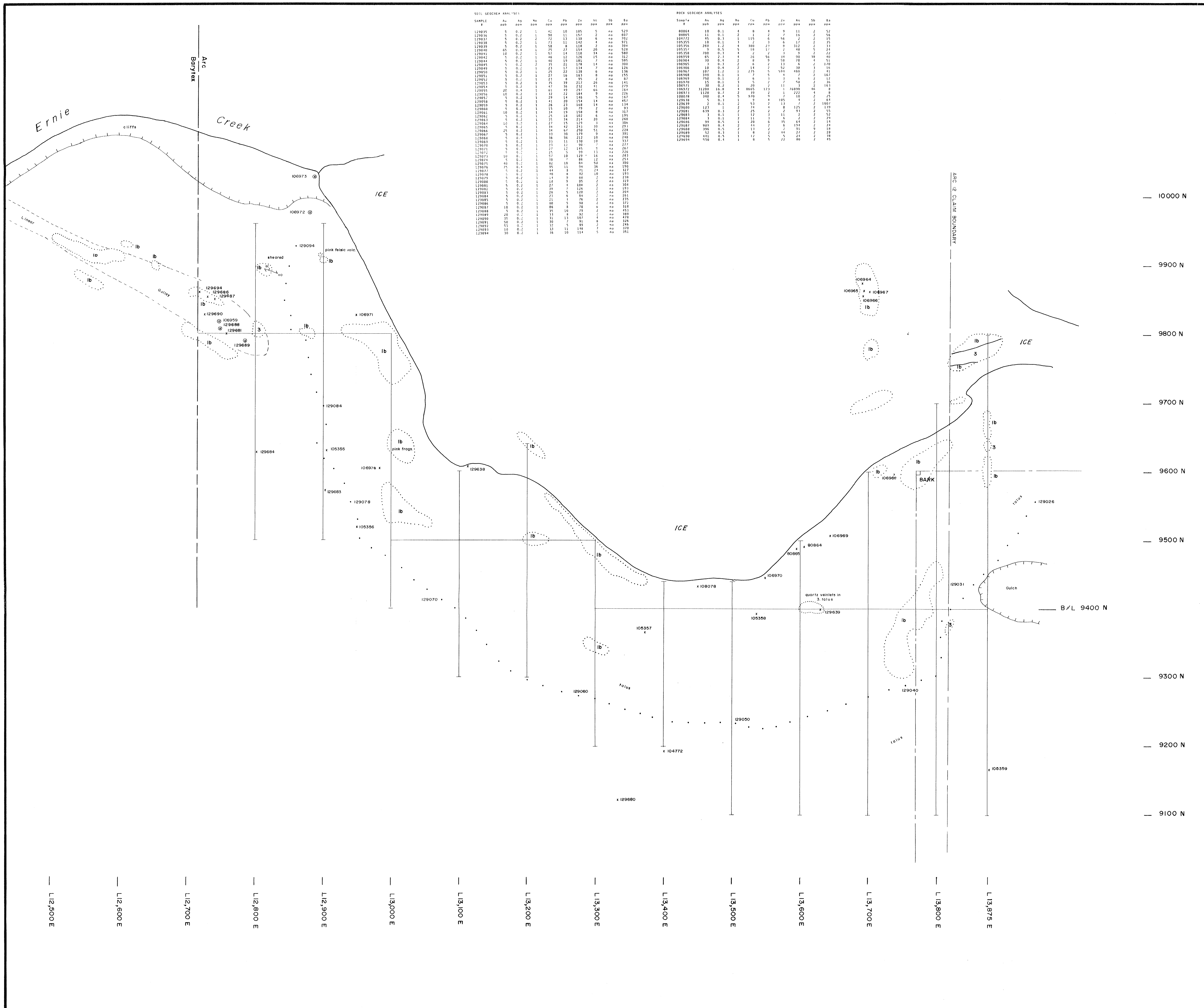
109160 Silt Sample Location

108280 Soil Sample Location

103770 Rock Sample Location

0 500 metres
SCALE 1:10,000

REVISED	ARC PROJECT
P.J.L. DEC./90	SAMPLE LOCATIONS
PROJ. No. 294	SURVEY BY: E.G. DATE: AUG 1990
N.T.S. 1048/10	DRAWN BY: SCAN/AutoCAD(S.K.B.) SCALE: 1 : 10,000
DWG. No. 4	NORANDA EXPLORATION OFFICE: PRINCE GEORGE B.C.



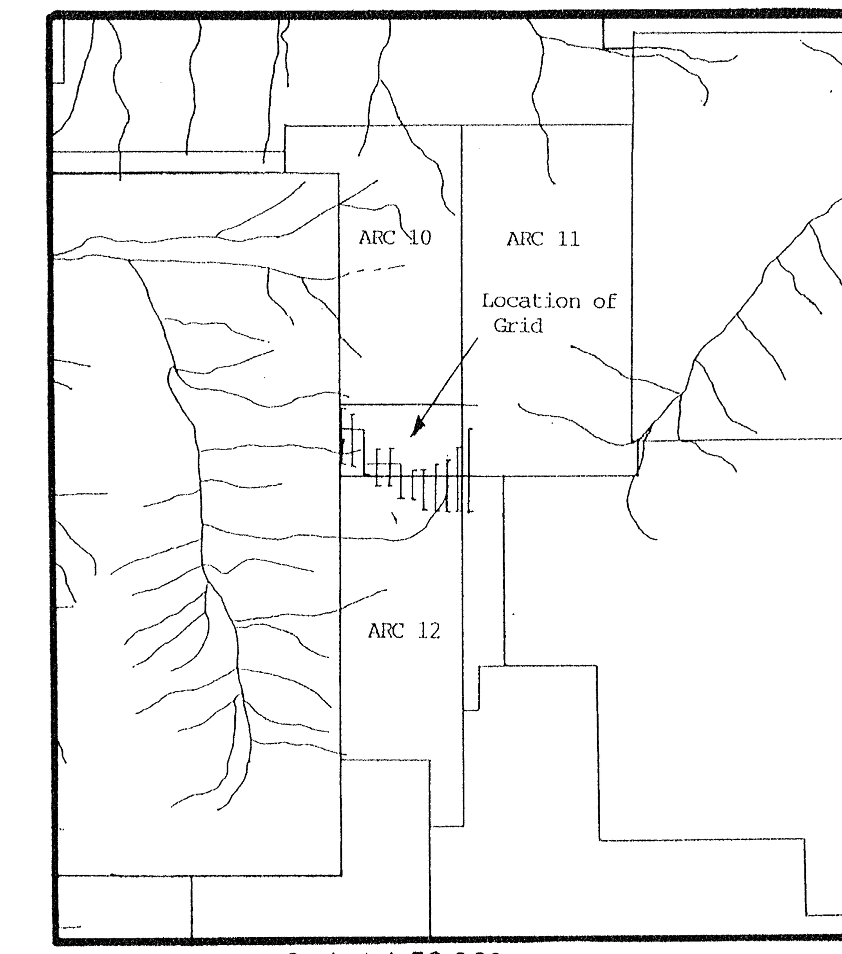
SOIL GEOCHEM ANALYSES

SAMPLE #	Au ppb	Ag ppm	Mo ppm	Cu ppm	Pb ppm	Zn ppm	As ppm	Sb ppm	Ba ppm
129035	5	0.2	1	42	10	105	5	na	529
129036	5	0.2	1	90	11	157	2	na	607
129037	5	0.2	2	72	13	138	6	na	702
129038	5	0.2	1	73	11	142	4	na	971
129039	5	0.2	1	58	8	118	2	na	394
129040	65	0.4	1	75	27	154	20	na	528
129041	10	0.2	1	57	14	110	34	na	580
129042	5	0.2	1	46	12	126	15	na	312
129044	5	0.2	1	40	19	181	7	na	595
129045	5	0.2	2	35	21	178	14	na	300
129049	5	0.2	1	23	17	134	7	na	126
129050	5	0.2	1	25	22	138	6	na	136
129051	5	0.2	1	27	16	163	8	na	155
129052	5	0.2	1	23	8	95	2	na	87
129053	5	0.2	1	35	39	217	26	na	141
129054	5	0.2	1	47	36	232	41	na	279
129055	20	0.4	1	61	49	297	66	na	264
129056	10	0.2	1	32	22	184	9	na	226
129057	5	0.2	1	29	14	146	5	na	167
129058	5	0.2	1	41	20	154	14	na	457
129059	5	0.2	1	26	23	168	14	na	134
129060	5	0.2	1	15	10	79	2	na	93
129061	10	0.2	1	34	19	158	8	na	317
129062	5	0.2	1	25	18	102	6	na	195
129063	5	0.2	1	35	34	214	20	na	260
129064	10	0.2	1	27	15	129	3	na	306
129065	5	0.2	1	34	42	243	30	na	293
129066	25	0.2	1	34	67	250	51	na	228
129067	5	0.2	1	33	30	179	9	na	391
129068	5	0.4	1	36	56	212	10	na	248
129069	5	0.2	1	33	11	130	10	na	337
129070	5	0.2	1	23	12	90	7	na	277
129071	5	0.2	1	27	12	145	5	na	267
129072	5	0.2	1	25	5	99	13	na	226
129073	10	0.2	1	57	10	129	16	na	283
129074	5	0.2	1	38	7	88	12	na	254
129075	40	0.2	1	82	10	84	50	na	380
129076	75	0.4	1	95	11	94	36	na	190
129077	5	0.2	1	44	8	71	24	na	327
129078	5	0.2	1	40	8	92	10	na	193
129079	5	0.2	1	14	9	68	2	na	238
129080	5	0.2	1	18	9	85	2	na	319
129081	5	0.2	1	27	4	104	2	na	304
129082	5	0.2	1	39	7	126	2	na	193
129083	5	0.2	1	26	5	120	2	na	204
129084	5	0.2	1	23	6	84	2	na	261
129085	5	0.2	1	21	4	76	2	na	235
129086	5	0.2	1	80	5	98	2	na	372
129087	10	0.2	1	86	8	78	6	na	318
129088	5	0.2	1	35	10	79	2	na	453
129089	20	0.2	1	33	8	92	2	na	389
129090	35	0.2	1	31	13	107	4	na	478
129091	50	0.2	1	30	7	91	8	na	326
129092	55	0.2	1	32	5	89	2	na	246
129093	10	0.2	1	33	11	146	7	na	370
129094	30	0.2	1	36	10	114	5	na	351

ROCK GEOCHEM ANALYSES

Sample #	Au ppb	Ag ppm	Mo ppm	Cu ppm	Pb ppm	Zn ppm	As ppm	Sb ppm	Ba ppm
80864	18	0.1	4	8	4	9	11	2	52
80865	11	0.1	2	1	2	7	16	2	56
104772	45	0.3	1	115	6	56	2	2	15
105355	18	0.1	3	2	3	6	17	2	35
105356	260	1.2	4	380	23	8	312	2	33
105357	9	0.5	5	18	17	2	48	5	24
105358	700	0.3	4	2	2	3	9	2	22
106959	65	2.3	4	26	56	34	90	38	40
106964	38	0.4	2	8	9	58	78	4	51
106965	3	0.3	2	6	2	13	6	2	170
106966	18	0.4	2	14	2	52	38	3	16
106967	107	1.2	1	235	5	594	488	2	41
106968	340	0.1	1	7	5	4	7	2	167
106969	750	0.1	2	6	3	3	6	2	12
106970	15	0.1	3	5	2	7	58	2	36
106971	30	0.2	1	20	2	11	3	2	163
106972	31200	16.8	4	8665	123	1	76890	46	8
106973	1120	0.7	2	39	2	1	222	4	8
108078	340	0.4	5	970	9	7	10	2	25
129638	5	0.3	1	9	4	105	4	2	64
129639	2	0.1	2	53	2	13	7	2	1607
129680	123	1	2	74	4	8	125	2	139
129681	639	0.3	2	25	2	2	93	2	55
129683	3	0.1	1	12	3	11	2	2	52
129684	3	0.1	2	11	3	6	2	2	29
129686	99	0.5	1	20	6	35	64	2	14
129687	909	0.4	2	44	2	6	194	2	24
129688	396	0.5	2	13	2	2	91	9	18
129689	52	0.3	1	8	2	44	27	2	28
129690	441	0.5	1	12	5	5	24	2	38
129694	550	0.4	1	8	5	22	80	2	45

LOCATION MAP



Scale 1:50,000

LEGEND

1. Andesitic volcanics
   a. flows
   b. lapilli tuffs, crystal tuff
   c. undifferentiated
2 Sediments
   a. black shales
   b. siltstone, sandstone
   c. phyllite
3. Hbl-fsp porphyry (dykes) intrusive
4. Lehto intrusive, porphyritic, phaneritic, sheared
5. Eocene intrusive, granite, monzonite

SYMBOLS

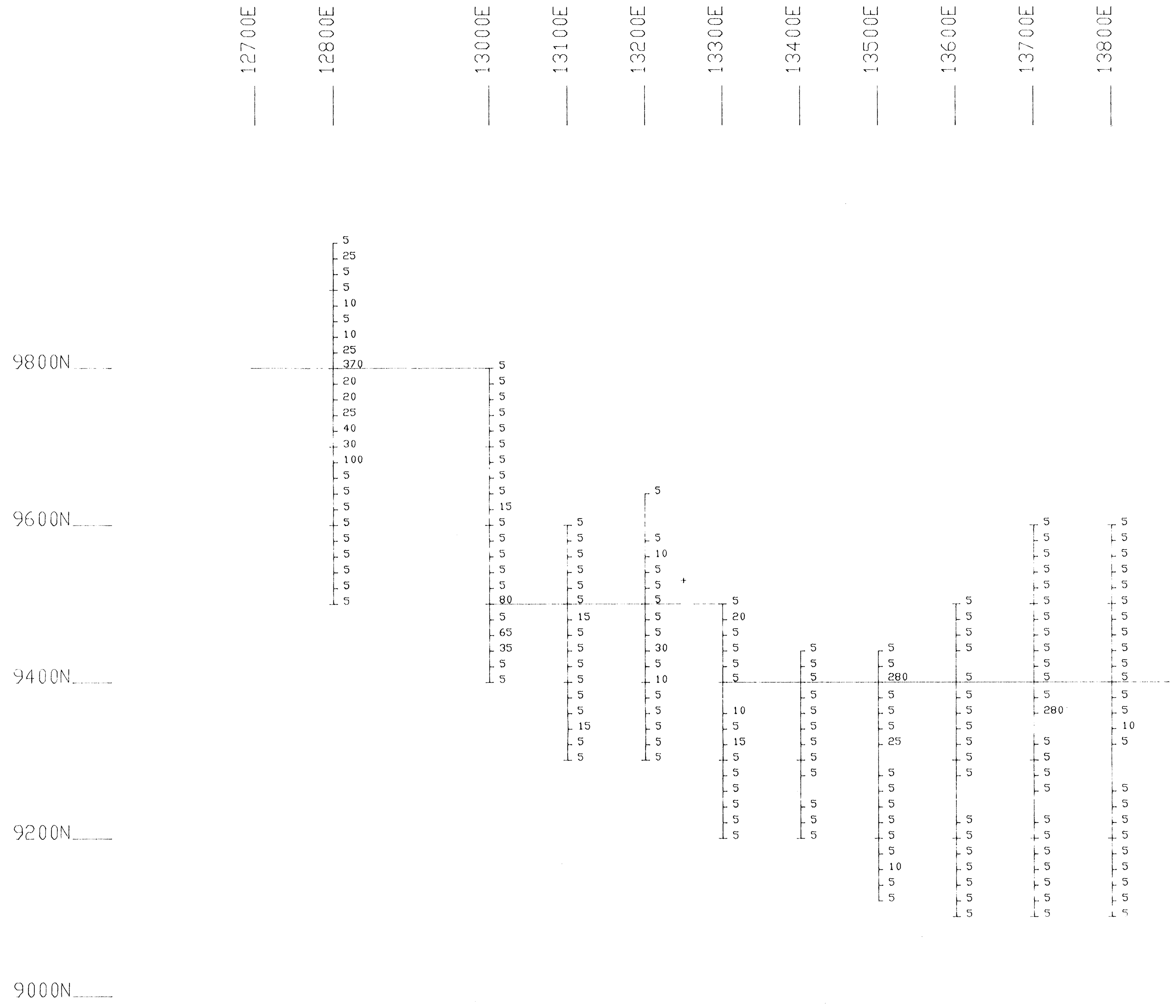
● 220	Au anomaly (ppb). All others in ppm.
x 129695	Rock Sample
◎ 129688	Float Sample
• 129060	Contour Soil Sample
109180	Silt Sample

GEOLOGICAL BRANCH
ASSESSMENT REPORT

21,067

0 50 100 150 200 metres
SCALE 1:2,500

REVISED	ARC OPTION
	Geology Soil, and Rock Sample Locations
PROJ. No. 294	SURVEY BY: E.G. DATE: NOV. 1990
N.T.S. 104B/10	DRAWN BY: P.J.L. SCALE: 1:2,500
DWG. No. 5	NORANDA EXPLORATION OFFICE: PRINCE GEORGE, B.C.



GEOLOGICAL BRANCH
ASSESSMENT REPORT

21,067

100m 50m 0m 100m 200m

ARC

SOIL GEOCHEMICAL SURVEY

PPB Au

PROJECT: ARC PROJECT # : 294

BASELINE AZIMUTH : 90 Deg.

SCALE = 1: 5000 DATE : 8/28/90

SURVEY BY : M SAVELL NTS : 104B10

FILE: C294ARC

FIG. 6 NORANDA EXPLORATION

noranda
NORANDA EXPLORATION CO. LTD.

Vers. 5.02 Fri 4 Jun 1991 at 10:25 Centre of plot at 13250.0E/9530.0N Serial # C?0140, Registered User : NORANDA EXPLORATION

GEOLOGICAL BRANCH
ASSESSMENT REPORT

21,067

100m 50m 0m 100m 200m

ARC

SOIL GEOCHEMICAL SURVEY

PPM Ag

PROJECT: ARC PROJECT # : 294

BASELINE AZIMUTH : 90 Deg.

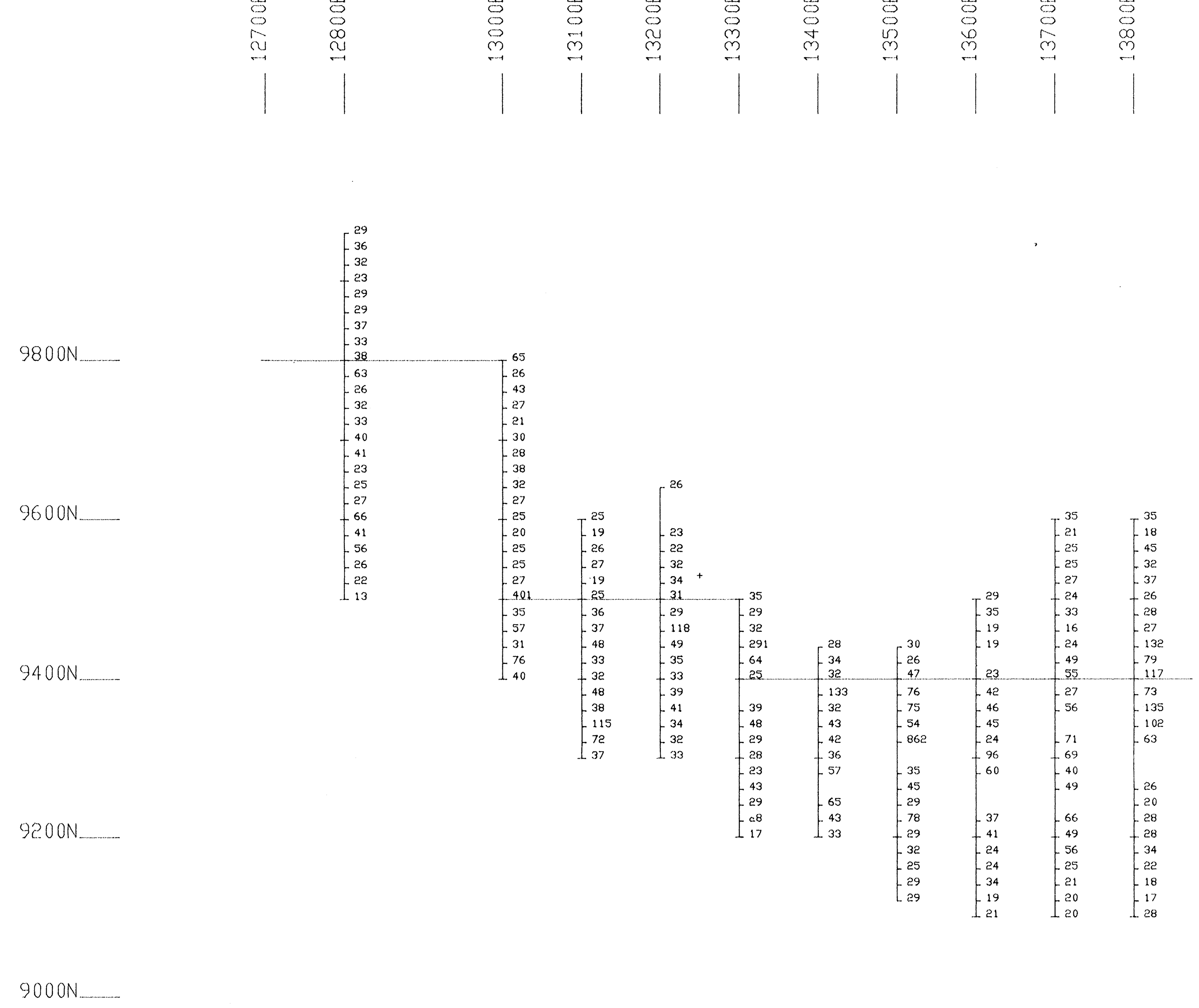
SCALE = 1: 5000 DATE : 8/28/90

SURVEY BY : M SAVELL NTS : 104B10

FILE: C294ARC

FIG. 7 NORANDA EXPLORATION

noranda
NORANDA EXPLORATION CO. LTD.



GEOLOGICAL BRANCH
ASSESSMENT REPORT

21,067

100m 50m 0m 100m 200m

ARC

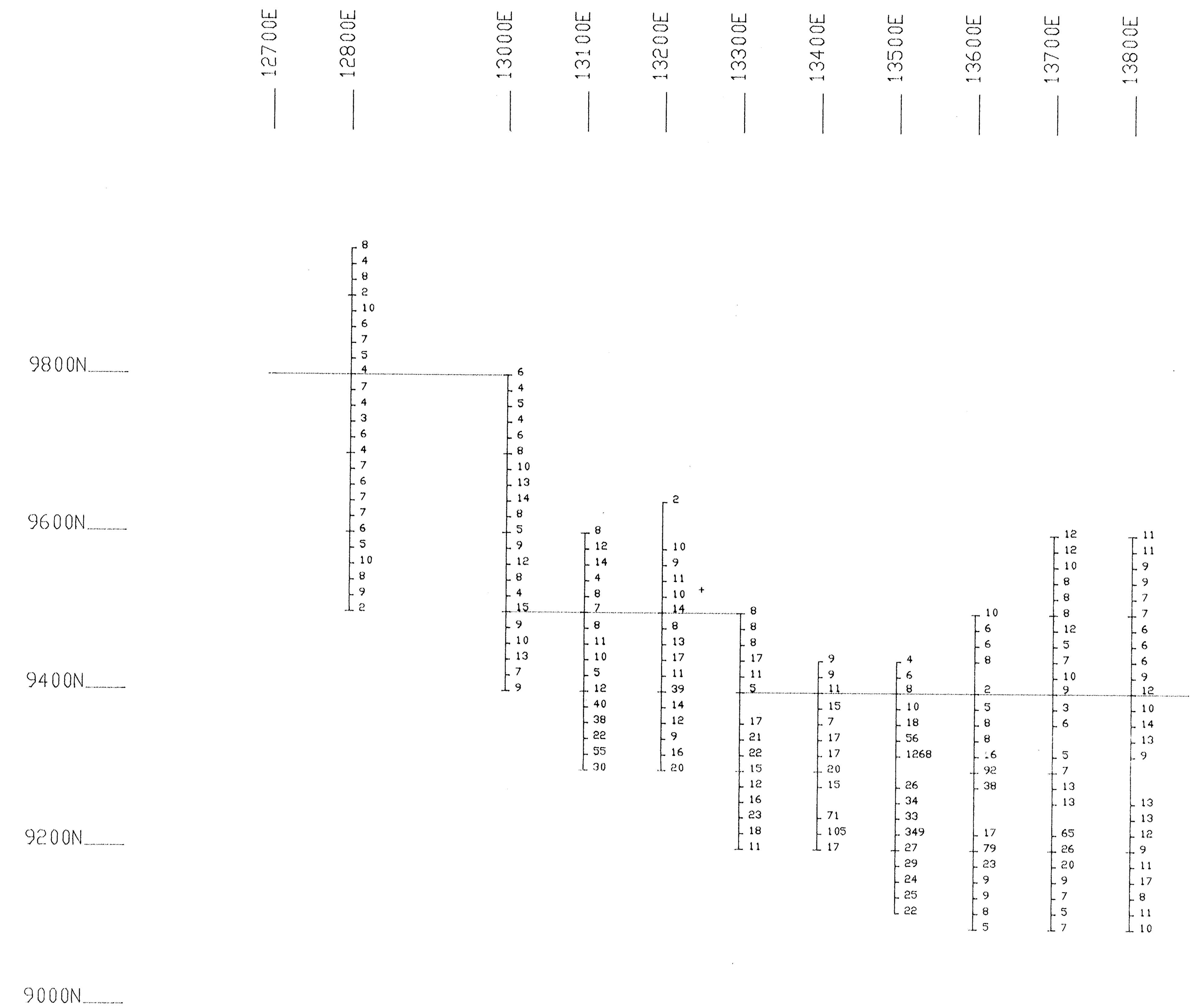
SOIL GEOCHEMICAL SURVEY
PPM Cu
PROJECT: ARC PROJECT # : 294
BASELINE AZIMUTH : 90 Deg.

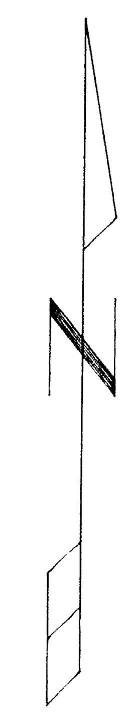
SCALE = 1: 5000 DATE : 8/28/90
SURVEY BY : M SAVELL NTS : 104B10
FILE: C294ARC

FIG. 8 NORANDA EXPLORATION

noranda
NORANDA EXPLORATION CO. LTD.

Vers. 5.02 Fri 4 Jun 1991 at 10:25 Centre of plot at 13250.0E/9530.0N Serial # C90140, Registered User : NORANDA EXPLORATION





100m 50m 0m 100m 200m

ARC

SOIL GEOCHEMICAL SURVEY
PPM Pb

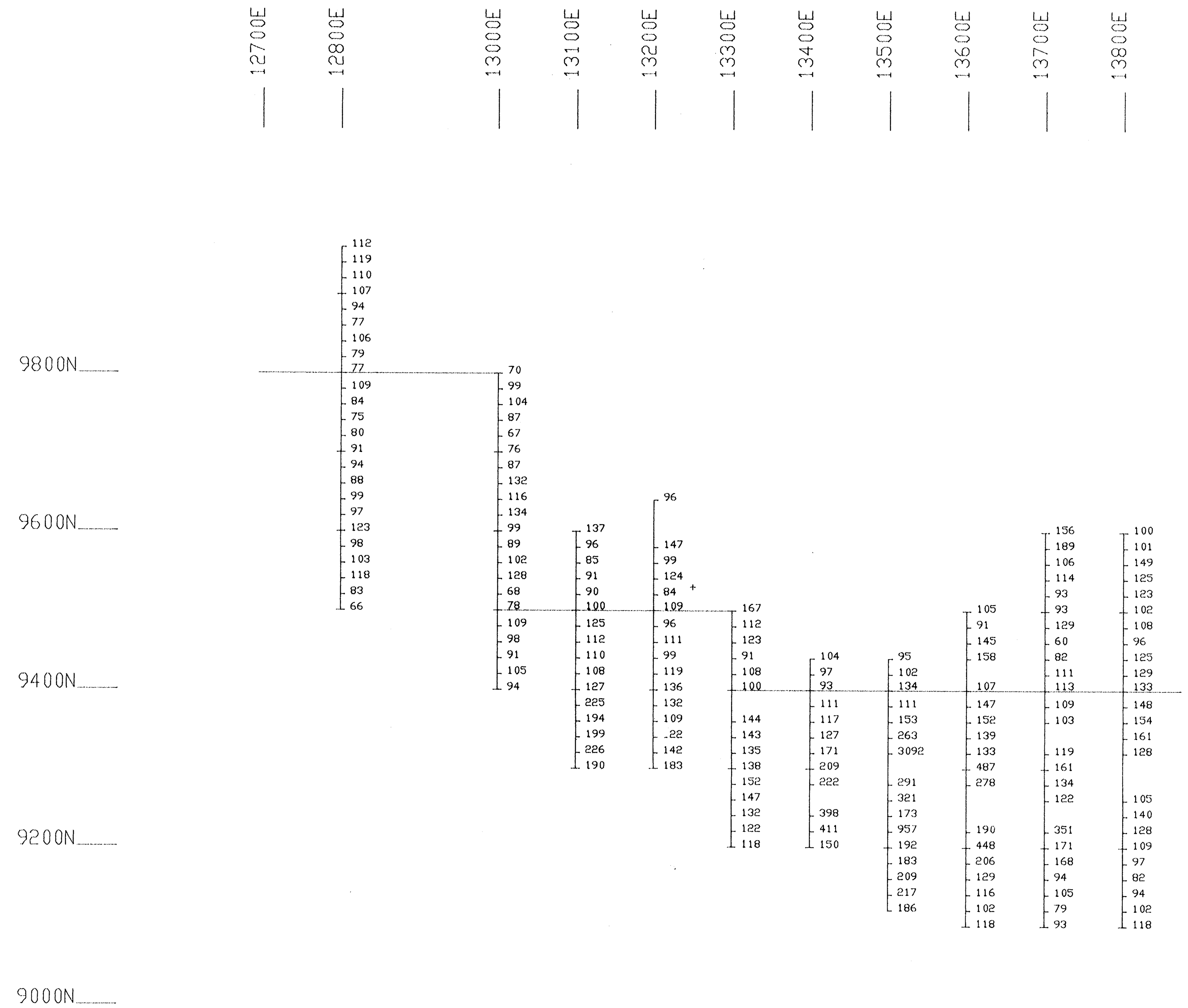
PROJECT: ARC PROJECT # : 294
BASELINE AZIMUTH : 90 Deg.

SCALE = 1: 5000 DATE : 8/28/90
SURVEY BY : M SAVELL NTS : 104B10
FILE: C294ARC

FIG. 9 NORANDA EXPLORATION

noranda
NORANDA EXPLORATION CO. LTD.

Vers. 5.02 Fri 4 Jan 1991 at 10:25 Centre of plot at 13050.0E/9330.0N Serial # C90140. Registered User : NORANDA EXPLORATION



GEOLOGICAL BRANCH
ASSESSMENT REPORT

21,067

100m 50m 0m 100m 200m

ARC

SOIL GEOCHEMICAL SURVEY
PPM Zn

PROJECT: ARC PROJECT # : 294
BASELINE AZIMUTH : 90 Deg.

SCALE = 1: 5000 DATE : 8/28/90
SURVEY BY : M SAVELL NTS : 104B10
FILE: C294ARC

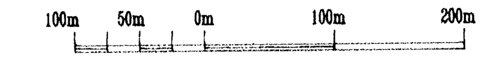
FIG. 10 NORANDA EXPLORATION

noranda
NORANDA EXPLORATION CO. LTD.

Vers. 5.02 Fri 4 Jun 1991 at 10:23 Centre of plot at 13250.0E/9530.0N Serial # C90146, Registered User : NORANDA EXPLORATION

GEOLOGICAL BRANCH
ASSESSMENT REPORT

21,067



ARC

SOIL GEOCHEMICAL SURVEY

PPM As

PROJECT: ARC PROJECT # : 294

BASELINE AZIMUTH : 90 Deg.

SCALE = 1: 5000 DATE : 8/28/90

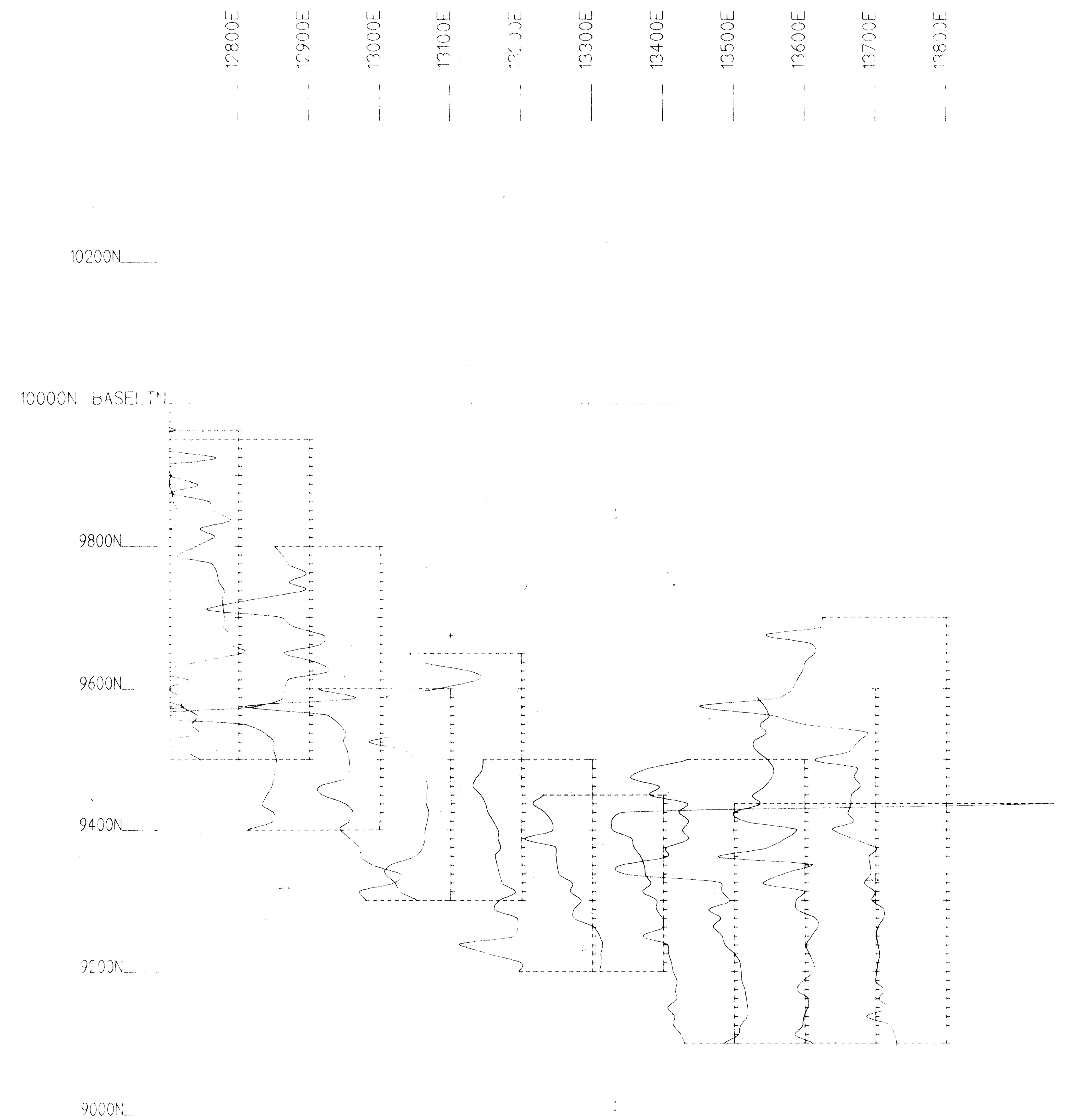
SURVEY BY : M SAVELL NTS : 104B10

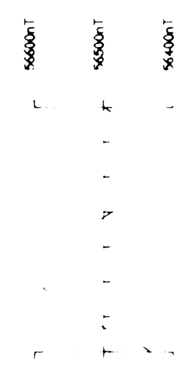
FILE: C294ARC

FIG. 11 NORANDA EXPLORATION

noranda
NORANDA EXPLORATION CO. LTD.

Vers. 5.02 Fri 4 Jan 1991 at 10:25 Centre of plot at 13250.0E/9530.0N Serial # C90140. Registered User : NORANDA EXPLORATION





GEOLOGICAL BRANCH
ASSESSMENT REPORT

21,067

Instrument	: OMNI4
Field	: TOTAL
Datum	: 0.0 nT
Contour Interval	:
Profile Scale :	100 nT /cm
Conductor Axis	:

100m 50m 0m 100m 200m

ARC

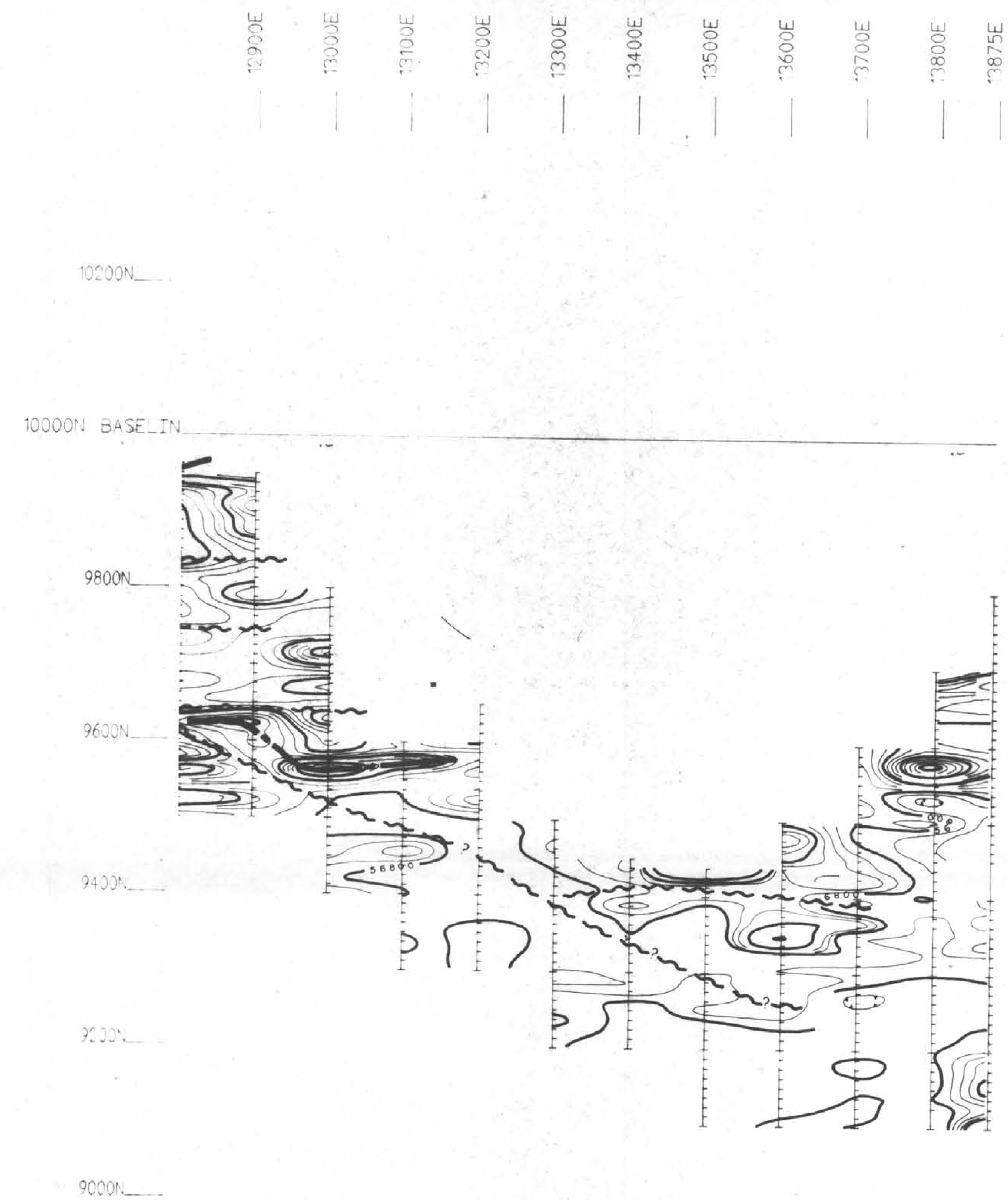
MAGNETOMETER SURVEY

PROJECT: OMNI4 PROJECT # : 294
BASELINE AZIMUTH : 90 Deg.

SCALE = 1 : 5000 DATE : 9/ 8/90
SURVEY BY : TW/CC NTS :
FILE: M294ARC

FIG. 12 **NORANDA EXPLORATION**

Vers. 5.02 Wed 12 Dec 1990 at 10:45 Centre of plot at 13100.0E/9675.0N Normal profile centred on 56500.0 nT Serial # M90140 Registered User : NORANDA EXPLORATION



GEOLOGICAL BRANCH
ASSESSMENT REPORT

21,067

Instrument	:	OMNI4
Field	:	TOTAL
Datum	:	0.0 nT
Contour Interval	:	25 nT
Interpreted Dyke	:	
Magnetic Break	:	
Conductor Axis	:	

100m 50m 0m 100m 200m

MAGNETOMETER SURVEY

PROJECT: OMNI4 PROJECT # : 295
BASELINE AZIMUTH : 90 Deg.

SCALE = 1 : 5000 DATE : 9/ 8/90
SURVEY BY : TW/CC NTS :
FILE: M295ARC

FIG. 13 NORANDA EXPLORATION

Vers. 5.02 Wed 12 Dec 1990 at 10:45 Centre of plot at 13100.0E/9675.0N Normal profile centred on 56500.0 nT Serial # M90140 Registered User : NORANDA EXPLORATION