noranda
NORANDA EXPLORATION CO. LTD.

GEOCHEMICAL REPORT

ON THE

BARK MINERAL CLAIM

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

Latitude: 56° 40' N
Longitude: 130° 39' W

NORANDA EXPLORATION COMPANY, LIMITED
(no personal liability)

REPORT BY: MICHAEL SAVELL

APRIL, 1991

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1.0 SUMMARY

The Bark claim was staked by Noranda Exploration Company, Limited in July, 1990. A field program consisting of prospecting and geochemical sampling was carried out following staking to determine the mineral potential of the property. The Bark property is located approximately 90 km north of the town of Stewart, B.C. and 50 km southwest of the Stewart-Cassiar Highway.

On the Bark claim, the dominant lithologies are Triassic and/or Jurassic andesitic volcanics on the north half and felsic porphyritic intrusive rocks of the Lehto Porphyry on the south half.

Soil samples were collected at 25 metre intervals on the 5000 and 5500 foot contour lines at the northwest corner of the property. No significant metal concentrations were detected. A total of 15 rock samples were collected during prospecting traverses from a variety of oxidized and quartz veined outcrops and float scattered over the property. Weakly anomolous Au values of 36, 26 and 31 ppb detected in three pyritic samples may indicate continuation of mineralization known to occur on the adjacent ARC claims.

The limited exploration program undertaken in 1990 has not adequately assessed the property. Further detailed prospecting and contour line soil sampling is recommended.

2.0 INTRODUCTION

2.1 GENERAL REMARKS

The Bark claim was staked by Noranda Exploration Company, Limited in July, 1990. A field program consisting of prospecting and geochemical sampling was carried out following staking to determine the mineral potential of the property. Noranda has an option to acquire a 50% interest in the adjacent ARC 10 to 12 claims which lie immediately to the west and north. The exploration on the Bark claim was concurrent with work done on the ARC claims. A total of 2 man days were spent by Noranda personnel performing exploration on the Bark claims in 1990.

2.2 LOCATION AND ACCESS

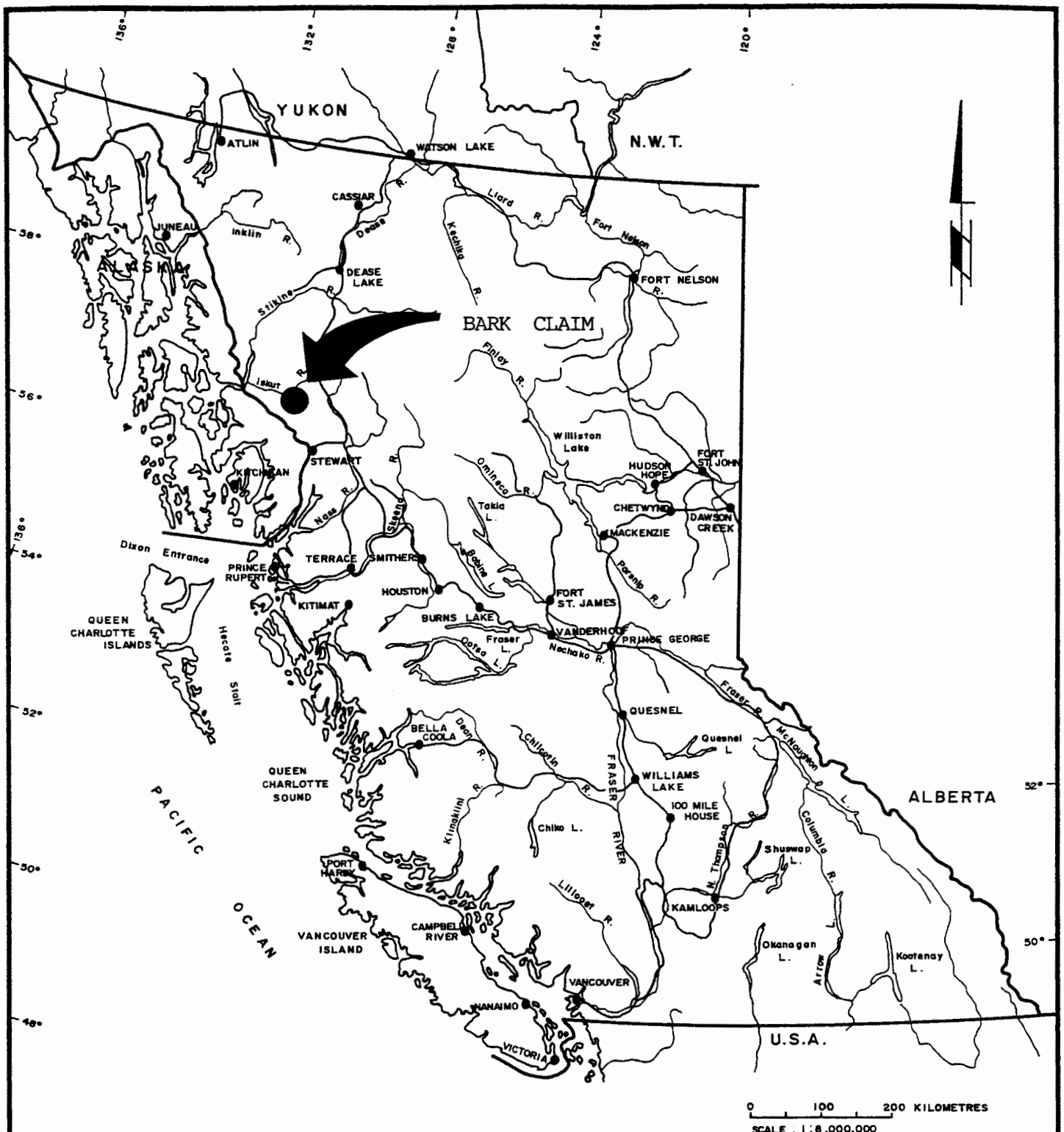
The Bark property is located approximately 90 km north of the town of Stewart, B.C. and 50 km southwest of the Stewart-Cassiar Highway, #37 (fig 1). The proposed route of the Iskut valley road lies 3 kilometres to the northwest.

The claims lie within the Liard Mining Division and are centred at 56° 40' north latitude and 130° 39' 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. A four man tent camp established on the ARC claims was used for accomodation.

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 75% of the property can be easily traversed, whereas the remainder is covered by glacial ice. The property covers part of a southeast facing slope within an ice filled U-shaped valley. Elevation varies from 1200 metres at the east end to over 1750 metres at the northwest corner. The entire property either lies above treeline.



REVISED	LOCATION MAP
	BARK CLAIM
PROJ. No.	SURVEY BY: DATE:
N.T.S.	DRAWN BY: S.K.B. SCALE: 1:8,000,000
DWG. No. 1	NORANDA EXPLORATION
	OFFICE: PRINCE GEORGE, B.C.

VANCAL 11927

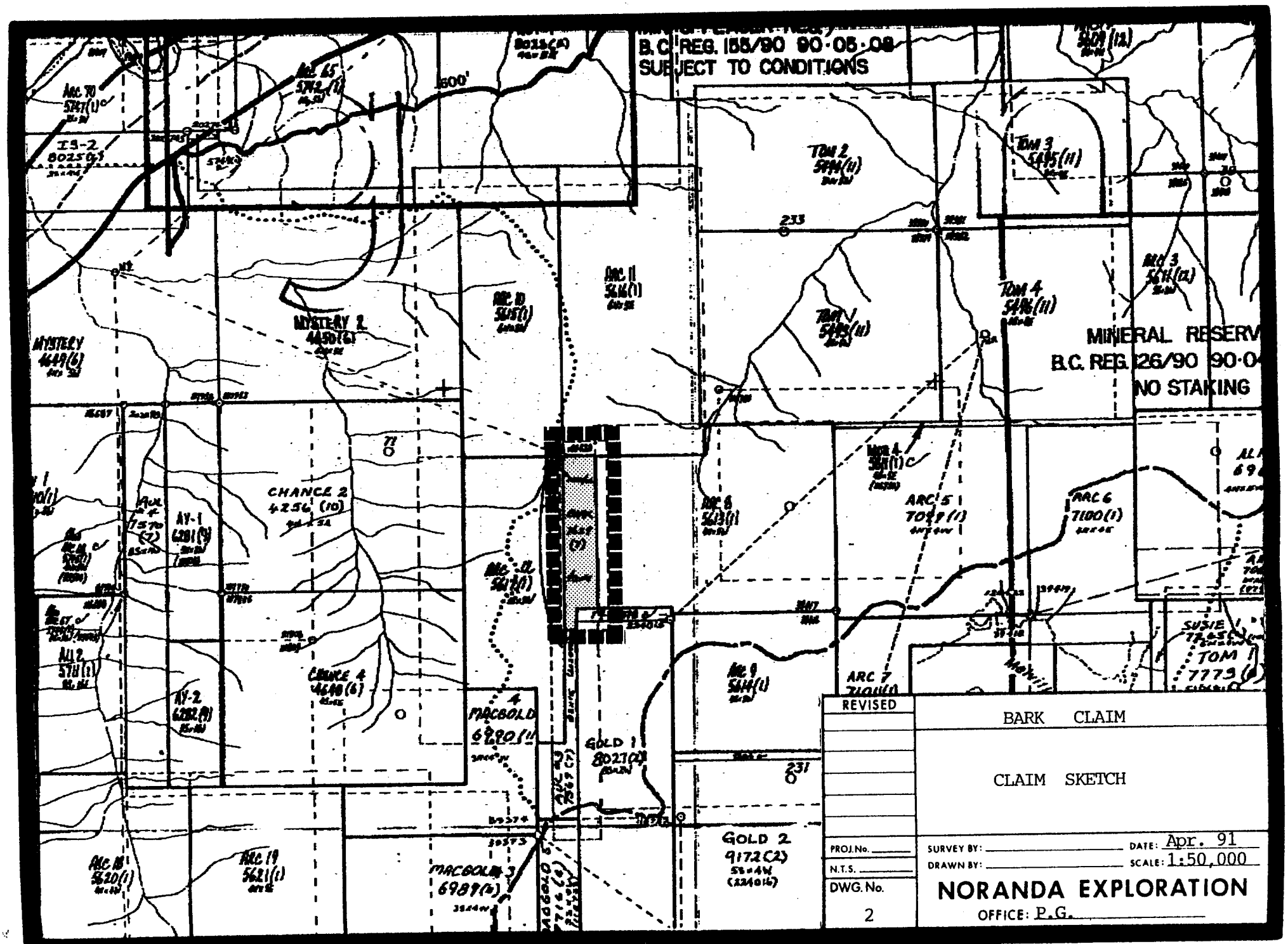
2.4 CLAIM DATA

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

Name	Units	Record #	Record Date	Expiry Date
BARK	4	7629	July 14, 1990	1993

2.5 PREVIOUS WORK

There is no recorded work for the area of the Bark claim. 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.


B.C. REG. 155/90 90-05-08
SUBJECT TO CONDITIONS
1600'
IS-2
MYSTERY
MYSTERY 2
CHANCE 2
CHANCE 4
AV-1
AV-2
ARC 5
ARC 6
ARC 7
ARC 8
ARC 9
ARC 10
ARC 11
ARC 18
ARC 19
TOM 2
TOM 3
TOM 4
4 MACGOLD
MACGOLD 3
GOLD 1
GOLD 2
231
233
MINERAL RESERV
B.C. REG. 26/90 90-04
NO STAKING
SUSIE
TOM 1
REVISED
BARK CLAIM
CLAIM SKETCH
PROJ. No.
N.T.S.
DWG. No.
2
SURVEY BY:
DRAWN BY:
DATE: Apr. 91
SCALE: 1:50,000
NORANDA EXPLORATION
OFFICE: P.G.

3.0 REGIONAL GEOLOGY

The Bark 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.

On the Bark claim, the dominant lithologies are Triassic and/or Jurassic andesitic volcanics on the north half and felsic porphyritic intrusive rocks of the Lehto Porphyry on the south half.

4.0 GEOCHEMISTRY

4.1 SOIL GEOCHEMISTRY

Two contour lines on approximately the 5000 and 5500 foot contours at the northwest corner of the property were sampled at 25 metre intervals. Sample numbers, locations and analytical results are shown on figure 3. Samples were collected from the "B" soil horizon where possible, however due to poor soil development and slumping, the material obtained was often mixed with or consisted of "C" horizon. They were obtained by digging a small hole averaging about 50 centimetres deep with a grubhoe. The soil was placed in a kraft paper envelope and shipped to the geochem lab of Noranda Exploration at 1050 Davie Street, Vancouver, B.C. Details of the analytical procedure are given in Appendix III and lab reports in Appendix IV.

No significant metal concentrations were detected. As only a small part of the claim was sampled, no conclusive statements can be drawn regarding the entire claim.

4.2 ROCK GEOCHEMISTRY

A total of 15 rock samples were collected during prospecting traverses from a variety of oxidized and quartz veined outcrops and float scattered over the property. Sample locations and results are shown on figure 3, lab reports listed in Appendix IV and descriptions provided in Appendix V.

No significant metal concentrations were detected. Weakly anomolous Au values of 36, 26 and 31 ppb detected in samples 105332, 105363, and 105466 may indicate continuation of mineralization known to occur on the adjacent ARC claims, where economic concentrations of gold have been found. The samples are all described as pyritic quartz veins or lenses in a felsic intrusive host. Two of these also show elevated As values of 142 and 168 ppm.

5.0 CONCLUSIONS

Weakly anomalous Au and As values detected in pyritic, quartz veined felsic intrusive rocks sampled during prospecting traverses suggest the possibility that the mineralizing system known to occur on the ARC 10 to 12 claims immediately to the northwest may continue onto the Bark claim. The limited exploration program undertaken in 1990 has not adequately assessed the property.

6.0 RECOMMENDATIONS

Further detailed prospecting and contour line soil sampling is recommended.

APPENDIX I

STATEMENT OF COSTS

CLAIMS: BARK
DATES: July 15 to September 1, 1990
TYPE OF REPORT: GEOCHEMICAL

1.	WAGES:		
	Rate per day: $151.90		
	No. of days: 2		
	Dates: July 15 to Sept. 1, 1990		
	TOTAL:	$	303.80
2.	FOOD, ACCOMMODATION, AND SUPPLIES:		
	Rate per day: $57.39		
	No. of days: 2		
	Dates: July 15 to Sept. 1, 1990		
	TOTAL:	$	114.78
3.	TRANSPORTATION:		
	Rate per day: $122.19		
	No. of days: 2		
	Dates: July 15 to Sept. 1, 1990		
	TOTAL:	$	244.38
4.	ANALYSES:		
	20 soils for 28 element ICP & Au @ $11.46 ea	$	230.55
	15 rocks " @ $15.37 ea	$	229.20
	TOTAL:	$	459.75
5.	COST OF REPORT PREPARATION:		
	Author	$	250.00
	Drafting	$	100.00
	Typing	$	50.00
	TOTAL:	$	400.00
	TOTAL COSTS:	$	1,522.71

APPENDIX II

STATEMENT OF QUALIFICATIONS

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)

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.

APPENDIX IV

ANALYTICAL RESULTS

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
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	0.66	0.6	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	87	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	181
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	9265	2	0.08	17	0.15	14	72	0.24	105	154
180	13800E-9380N	5	0.2	4.95	2	657	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	19	1.13	4781	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	8.09	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	612	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	1.16	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	97	8.27	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	616	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
192	129026	10	0.2	5.38	2	619	2.6	2	0.19	0.2	87	13	10	32	5.48	1.36	36	18	0.87	2394	1	0.09	16	0.10	6	79	0.23	77	134
193	129027	5	0.2	4.39	2	286	2.0	2	0.21	0.2	74	11	14	19	5.44	0.55	25	12	0.58	1894	1	0.10	12	0.15	8	53	0.43	84	107
194	129028	5	0.2	8.61	2	832	2.3	2	0.15	0.2	78	11	11	23	7.85	2.74	30	22	0.48	3746	1	0.07	11	0.18	12	1949	0.08	98	138
195	129029	5	0.2	6.41	2	477	2.2	2	0.14	0.2	70	10	6	24	6.63	1.64	28	17	0.85	3895	1	0.08	11	0.15	7	247	0.22	56	121
196	129030	5	0.2	5.08	2	342	2.7	2	0.24	0.2	87	13	14	28	6.73	0.80	34	17	1.01	3171	1	0.14	17	0.15	8	43	0.39	83	140
197	129031	5	0.2	5.29	2	503	1.7	2	0.32	0.2	66	13	10	27	5.81	1.28	25	14	1.13	3406	1	0.14	17	0.12	5	50	0.27	71	104
198	129032	10	0.2	4.98	2	498	1.5	2	0.30	0.2	61	13	9	29	5.68	1.19	23	13	1.07	3198	1	0.13	16	0.13	8	52	0.28	71	105
199	129033	5	0.2	4.23	2	436	1.6	2	0.22	0.2	66	12	16	29	4.98	0.99	25	12	0.97	2112	1	0.09	16	0.11	7	50	0.25	71	106
201	129034	5	0.2	5.24	6	582	2.0	5	0.34	0.2	72	18	15	66	6.32	1.15	30	16	1.08	3330	2	0.16	21	0.13	15	114	0.30	93	136
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	15	1.06	1831	1	0.08	20	0.09	10	33	0.17	69	105
203	129036	5	0.2	6.52	2	607	1.8	2	0.14	0.2	77	18	14	80	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	96	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	16	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	0.83	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	8	196	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	36	5.77	0.36	34	12	0.57	1181	1	0.11	14	0.14	39	18	0.52	97	217

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
307	129666	5	0.2	3.10	3	413	0.7	2	0.24	0.2	33	10	26	16	4.04	0.76	14	12	0.64	2758	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
313	129672	5	0.2	4.77	2	72	0.8	6	0.13	0.2	39	6	30	22	6.01	0.18	16	6	0.29	423	1	0.04	7	0.18	7	15	0.85	151	79
314	129673	5	0.2	5.15	2	64	0.6	5	0.10	0.2	33	17	26	25	6.42	0.21	11	6	0.53	1405	1	0.04	12	0.21	9	12	0.70	127	101
315	129674	5	0.2	3.46	4	109	0.6	4	0.12	0.2	32	9	27	19	6.06	0.34	14	8	0.31	994	1	0.05	8	0.21	7	17	0.63	120	99
316	129675	5	0.2	3.83	2	100	0.7	5	0.18	0.2	38	6	21	17	5.46	0.25	16	7	0.37	613	1	0.04	7	0.22	7	17	0.87	142	78
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	1.06	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	0.18	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	148	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	78	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	61	5	24	19	4.02	0.59	19	8	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	75
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
335	104489	5	0.2	4.12	2	100	0.8	6	0.57	0.2	47	13	17	19	4.68	0.30	17	7	0.64	725	1	0.18	10	0.17	7	64	0.72	111	78
336	104490	5	0.2	3.98	2	221	1.1	7	0.47	0.2	56	19	16	18	5.14	0.28	21	8	0.57	1712	1	0.11	11	0.23	8	39	0.78	123	83
337	104491	5	0.2	3.25	2	80	0.5	5	0.33	0.2	37	8	21	17	4.55	0.26	13	5	0.47	527	1	0.08	13	0.19	6	27	0.74	114	88
338	104492	5	0.2	4.02	2	109	0.7	5	0.26	0.2	48	9	27	23	5.65	0.38	20	8	0.43	1245	2	0.08	10	0.19	9	29	0.79	140	88
339	104493	5	0.2	3.92	2	131	1.1	4	0.15	0.2	52	6	20	15	4.71	0.49	19	9	0.44	774	1	0.06	9	0.17	9	17	0.54	97	96
340	104494	5	0.2	2.86	2	148	0.5	3	0.12	0.2	39	5	20	11	2.63	0.59	16	8	0.39	402	1	0.04	9	0.13	12	23	0.23	60	58
341	104495	5	0.2	4.69	6	161	1.9	2	0.33	0.2	77	15	26	27	5.43	0.47	31	12	0.59	1164	4	0.17	18	0.17	12	40	0.57	104	105
342	104496	5	0.2	3.96	2	255	1.0	2	0.16	0.2	52	10	22	22	3.83	1.01	21	12	0.90	1153	1	0.07	20	0.08	6	32	0.17	64	74
343	104497	5	0.2	5.12	2	220	1.3	3	0.29	0.2	68	13	21	26	5.36	0.80	28	11	0.86	1290	1	0.12	16	0.17	8	39	0.55	107	98
344	104498	5	0.2	4.97	2	245	1.5	4	0.20	0.2	65	18	20	21	5.85	0.48	24	9	0.84	1785	1	0.07	16	0.20	8	24	0.66	126	90
345	104499	5	0.2	4.43	2	353	1.5	4	0.37	0.2	61	15	15	17	5.62	0.56	20	10	0.82	2441	1	0.14	15	0.17	5	42	0.54	104	98
346	104500	5	0.2	4.93	2	794	1.7	3	0.45	0.2	84	16	8	23	6.92	1.14	35	12	0.97	4583	1	0.10	13	0.16	3	45	0.28	82	127

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

GEOCHEMICAL ANALYSIS CERTIFICATE Bark (EG) Copy to Mike

Noranda Exploration Co. Ltd. PROJECT [illegible] 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
105330	3	6	6	2	.2	6	66	89	9.06	6	7	ND	1	1	.2	2	2	3	.01	.006	2	5	.04	23	.01	2	.21	.01	.10	1	4
105331	2	4	2	1	.1	8	116	325	12.18	4	7	ND	1	1	.2	2	2	2	.01	.002	2	10	.10	12	.01	7	.29	.01	.11	1	3
105332	3	54	2	3	.8	14	119	1809	22.52	4	5	ND	1	13	.2	8	3	3	3.57	.001	2	22	1.51	10	.01	3	.18	.01	.05	1	36
105333	1	3715	3	32	2.5	7	215	139	39.38	71	5	36	1	37	.8	5	94	1	2.05	.001	2	21	.01	3	.01	2	.02	.01	.01	113	34600
105334	1	1024	8	24	.6	24	104	352	19.56	16	5	ND	1	19	.2	2	4	19	1.97	.067	4	15	.24	7	.07	5	.71	.02	.02	1	390
105335	1	49489	31	160	18.6	9	109	424	40.13	39	5	ND	1	15	5.5	2	38	1	.92	.001	2	17	.32	2	.01	2	.01	.01	.01	1	200
105359	6	158	2	12	.1	3	4	109	2.28	2	5	ND	3	10	.2	2	2	2	.05	.011	13	3	.22	182	.01	4	.58	.02	.13	2	4
105360	5	367	6	8	.2	5	3	110	2.02	9	6	ND	4	7	.2	2	3	1	.04	.008	22	2	.02	196	.01	4	.28	.02	.16	1	8
105361	3	13	3	14	.1	5	2	307	1.70	2	5	ND	4	10	.2	2	2	2	.12	.010	14	3	.06	153	.01	5	.34	.03	.08	1	2
105362	5	52	26	36	.6	5	2	102	5.51	71	5	ND	1	22	.2	12	2	1	.01	.026	5	3	.31	444	.01	3	.71	.05	.09	1	5
105363	29	824	80	69	1.0	5	31	322	12.50	142	5	ND	4	4	.2	4	5	10	.03	.010	2	11	.90	16	.01	6	1.95	.01	.19	1	26
105364	2	14	2	1	.1	4	2	89	1.00	17	5	ND	1	2	.2	2	2	1	.05	.011	16	1	.02	76	.01	2	.27	.01	.16	1	5
105367	3	15	5	5	.1	4	6	67	1.90	3	6	ND	4	5	.2	2	4	1	.02	.012	9	4	.12	184	.01	2	.43	.03	.13	1	3
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	.043	3	27	1.21	22	.12	5	1.98	.01	.09	1	79
105463	1	11	2	18	.1	3	6	148	3.61	4	6	ND	1	5	.2	2	2	4	.18	.064	5	3	.35	54	.01	3	.80	.03	.13	1	3
105464	1	76	2	35	.3	11	14	487	4.79	98	5	ND	1	26	.2	2	2	37	1.56	.044	2	14	.58	86	.07	2	.84	.01	.29	1	10
105465	1	2	3	10	.1	3	23	479	7.44	2	5	ND	2	27	.2	2	2	2	1.07	.012	4	6	.50	19	.01	5	.67	.03	.10	1	1
105466	1	5	5	24	.1	2	26	599	13.80	168	5	ND	1	13	.2	2	2	62	.92	.058	2	13	.61	31	.01	6	1.71	.01	.21	2	31
STANDARD C/AU-R	18	58	37	130	6.6	71	31	1051	3.96	39	15	7	38	53	18.4	15	21	55	.48	.094	38	60	.88	180	.07	35	1.88	.06	.14	11	530

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

APPENDIX V

ROCK SAMPLE REPORTS

NORANDA EXPLORATION COMPANY, LIMITED

PROPERTY Bark

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☐ Acp	G☐ A☐ Mo	G☐ A☐ Cu	G☐ A☐ Pb	G☐ A☐ Zn	G☐ A☐ As	SAMPLED BY
105329	Quartz-carbonate stockwork veins in altered (silicified) felsic intrusive	0	chip		4	.1	3	1	2	8	5	ECG
105330	Rusty shear zone 15cm wide x 3.0m long with drusy frothy gy veins containing disiem fine grained pyrite, in intrusive host str. 120/80 SW	5	chip		4	.2	3	6	6	2	6	ECG
105331	ao 105330 str. 120/65 SW but more py	20	chip		3	.1	2	4	2	1	4	ECG
105332	2m gy-carb-py lens in felsic intrusive	5	chip		36	.8	3	54	2	3	4	ECG

NORANDA EXPLORATION COMPANY, LIMITED

N.T.S. 104 B/10

PROPERTY BARK

DATE July 18/90

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
105359	siliceous vein in more felspar rich intrusion	<1%	Chip	0.10m	4 ppb	:1 ppm	6	158	2	12	2 →	JDH
105360	siliceous vein w some ruggy QTz	3%	Chip	0.6m	8	.2	5	367	6	8	9	JDH
105361	silceous, rusty zone, weathered rusty Brown	<1%	chip	3m	2	.1	3	13	3	14	2	JDH
105362	siliceous vein w some ruggy QTz	2%	chip	0.3m	5	.6	5	52	26	36	71	JDH
105363	nodules of QTz and sulphides in Felsic intrusive.	20%	chip	–	26	1.0	29	824	80	69	142	JDH
105364	QTz vein (grey, Tan) from 5m wide orange zone.	<1%	chip	0.2m	5	.1	2	14	2	1	17	JDH
105367	QTz and Felsic intrusion vein	<1%	chip	0.2m	3	.1	3	15	5	5	3	JDH

July 21

NORANDA EXPLORATION COMPANY, LIMITED

N.T.S. 104 B/10

PROPERTY BARK

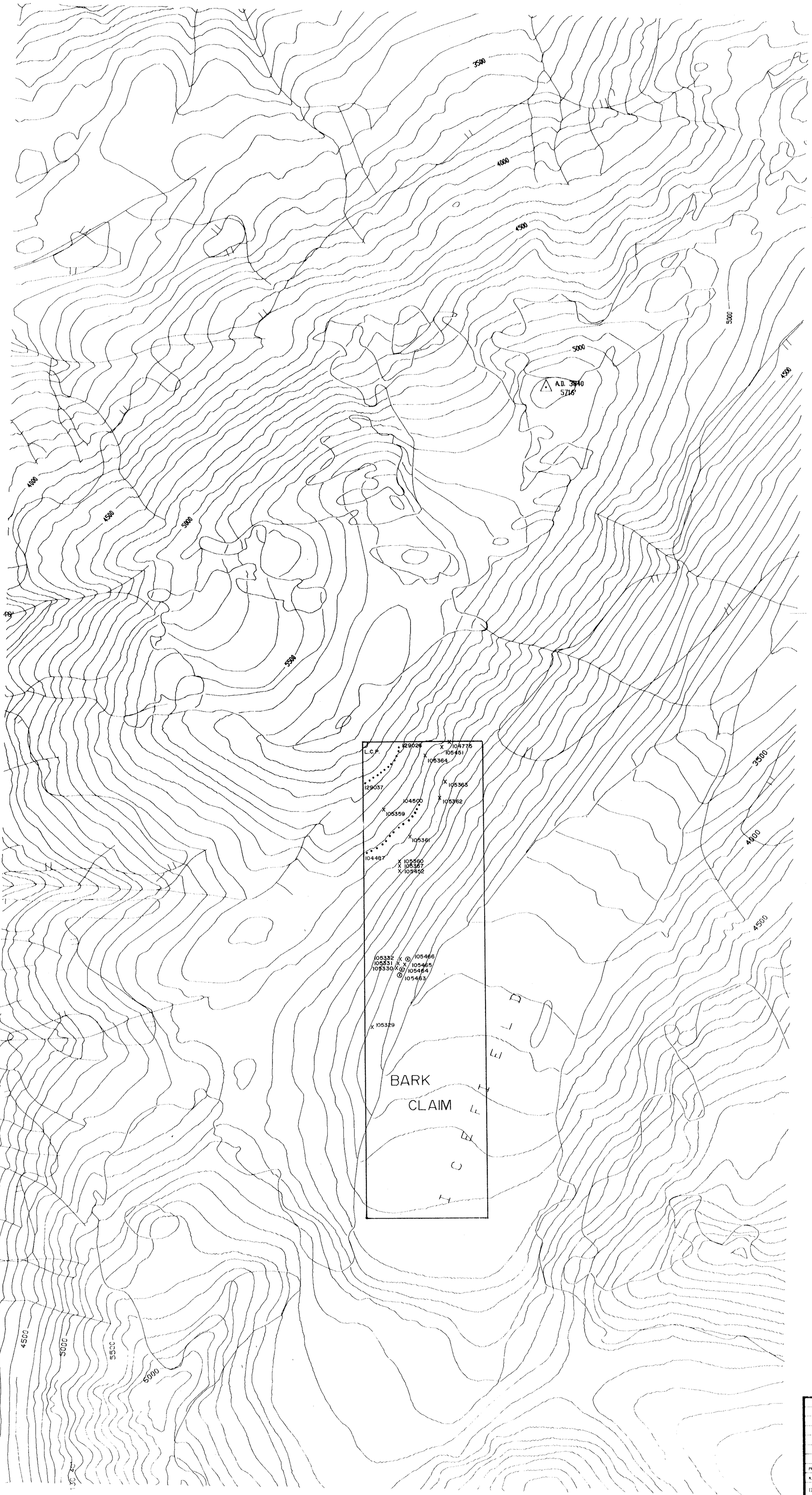
DATE July 20/90.

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
	1m extent											
105463	pyritized quarte vein somewhat siliceous, boulder 1m²	30	float	.02m	3	.1	1	11	2	18	4	C.S.
105464	dark intrusive float scattered along edge of glacier (up 50-100m) disseminated pyrite and veiny quartz material	15	float	—	10	.3	1	76	2	35	98	C.S.
105465	rusty quarte veining ~~15~~m extent vugy and disseminated strike 45-55°	20-40	chip	.01-.10m	1	.1	1	2	3	10	2	C.S.
105466	massive sulphides in vein with some disseminated in the intrusive host.	80	float	.10m	31	.1	1	5	5	24	168	C.S.

G = GEOCHEM A = ASSAY



GEOLOGICAL BRANCH
ASSESSMENT REPORT

21,308

SOIL GEOCHEMISTRY

SAMPLE No.	Au ppb	Ag ppm	Mo ppm	Cu ppm	Pb ppm	Zn ppm	As ppm	Sb ppm	Ba ppm
L29026	10	0.2	1	32	8	134	2	na	619
L29027	5	0.2	1	19	8	107	2	na	266
L29028	5	0.2	1	23	12	138	2	na	832
L29029	5	0.2	1	24	7	121	2	na	477
L29030	5	0.2	1	28	6	140	2	na	312
L29031	5	0.2	1	27	5	104	2	na	503
L29032	10	0.2	1	29	6	105	2	na	198
L29033	5	0.2	1	29	7	106	2	na	136
L29034	5	0.2	2	66	15	136	6	na	582
L29035	5	0.2	1	42	10	105	5	na	529
L29036	5	0.2	1	90	11	157	2	na	607
L04488	5	0.2	1	19	10	36	3	na	208
L04489	5	0.2	1	19	7	78	2	na	100
L04490	5	0.2	1	18	8	83	2	na	221
L04491	5	0.2	1	17	6	66	2	na	80
L04492	5	0.2	2	23	9	88	2	na	109
L04493	5	0.2	1	15	9	96	2	na	131
L04494	5	0.2	1	11	12	56	2	na	148
L04495	5	0.2	4	27	12	105	6	na	161
L04496	5	0.2	1	22	6	71	2	na	255
L04497	5	0.2	1	26	8	98	2	na	220
L04498	5	0.2	1	21	5	90	2	na	245
L04499	5	0.2	1	17	5	98	2	na	353
L04500	5	0.2	1	23	3	127	2	na	794

ROCK GEOCHEMISTRY

SAMPLE #	Au ppb	Ag ppm	Mo ppm	Cu ppm	Pb ppm	Zn ppm	As ppm	Sb ppm	Ba ppm
L05329	4	0.1	1	1	2	8	5	2	19
L05330	4	0.2	3	6	6	2	6	2	23
L05331	3	0.1	2	4	2	1	4	2	12
L05332	36	0.8	3	54	2	3	4	8	10
L05359	4	0.1	6	158	2	12	2	2	182
L05360	8	0.2	5	167	6	8	9	2	196
L05361	2	0.1	3	13	3	14	2	2	153
L05362	5	0.6	5	52	26	36	71	12	444
L05363	26	1	29	824	80	89	142	4	16
L05364	5	0.1	2	14	2	1	17	2	76
L05367	3	0.1	3	15	5	5	3	2	184
L05452	118	0.1	3	6	2	1	15	2	76
L05463	3	0.1	1	11	2	18	4	2	54
L05464	10	0.3	1	76	2	35	98	2	86
L05465	1	0.1	1	2	3	10	2	2	19
L05466	31	0.1	1	5	5	24	168	2	31

0 500 metres
SCALE 1:10,000

REVISED	ARC PROJECT
	BARK CLAIM
PROJ. No. 294	SURVEY BY: DATE:
N.T.S. 104B/10	DRAWN BY: SCAN/AutoCAD(S.R.B.) SCALE 1:10,000
DWG. No. 3	NORANDA EXPLORATION
	OFFICE: PRINCE GEORGE, B.C.